PLANNING COMMISSIONERS

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PLANNING COMMISSION AGENDA

December 13, 2012

PLANNING COMMISSION MEETING – 7:00 P.M.

CITY OF MORENO VALLEY
City Hall Council Chambers
14177 Frederick Street
Moreno Valley, California 92553

CALL TO ORDER

ROLL CALL

PLEDGE OF ALLEGIANCE

APPROVAL OF AGENDA

PUBLIC ADVISED OF THE PROCEDURES TO BE FOLLOWED IN THE MEETING

(ON DISPLAY AT THE REAR OF THE ROOM)

COMMENTS BY ANY MEMBER OF THE PUBLIC ON ANY MATTER WHICH IS NOT LISTED ON THE AGENDA AND WHICH IS WITHIN THE SUBJECT MATTER JURISDICTION OF THE COMMISSION

The City of Moreno Valley complies with the Americans with Disabilities Act of 1990. If you need special assistance to participate in this meeting, please contact Mel Alonzo, ADA Coordinator at (951) 413-3027 at least 48 hours prior to the meeting. The 48-hour notification will enable the City to make arrangements to ensure accessibility to this meeting.

NON-PUBLIC HEARING ITEMS

APPROVAL OF MINUTES

PUBLIC HEARING ITEMS

1. Case Number: PA11-0001(General Plan Amendment)
PA11-0002-PA11-0006
PA011-0007
P11-004
P11-005

Case Description: A General Plan Amendment, Master and individual lot plans, Tentative Parcel Map, Specific Plan Amendment and Environmental Impact Report for four (4) industrial buildings totaling 1,484,407 square feet.

Case Type: General Plan Amendment,
Master Plot Plan and four individual Plot Plans,
Tentative Parcel Map No. 35897
Specific Plan Amendment
Environmental Impact Report.

Applicant: Western RealCo

Owner: CSIP WR Moreno Valley LLC

Representative: Hogle-Ireland, Inc.

Location: Southeast corner of Iris Avenue and Heacock Street

Proposal: A General Plan Amendment (PA11-0001), Specific Plan Amendment (P11-004), Tentative Parcel Map No. 35879 (PA11-0007) and a Master Plot Plan (PA11-0002) and Four Plot Plans (PA11-0003 through PA11-0006), to amend the Circulation Element of the General Plan and Moreno Valley Industrial Area Plan (SP 208) to realign Kramaria Street and subdivide a 75.05 gross acre (66.91 net acre) portion of land into four separate parcels to include four (4) individual industrial buildings totaling 1,484,407 square feet within the I (Industrial) land use district.

Case Planner: Mark Gross

Recommendation: **APPROVE** Resolution Nos. 2012-33, 2012-34, 2012-35, and 2012-36 and thereby **RECOMMEND** that the City Council:

1. **CERTIFY** the Environmental Impact Report, including Statement of Overriding Considerations and the required Mitigation

Monitoring Program (P11-005) for P11-004 (Specific Plan Amendment), PA11-0001 (General Plan Amendment), PA11-0002-PA11-0006 (Master Plot Plan and Individual Plot Plans) and PA011-0007 (Tentative Parcel Map No. 35879) pursuant to the California Environmental Quality Act (CEQA) Guidelines; and

2. **APPROVE** PA07-0151(Tentative Parcel Map 35879), PA07-0152 (Master Plot Plan), PA07-0153, PA07-0154, PA07-0155 and PA07-0156 (Plot Plans), PA08-0057 (General Plan Amendment) and P08-060 (Specific Plan Amendment) to subdivide a 75.05 gross acre (66.93 net acre) portion of land into four separate parcels to include four (4) individual industrial buildings totaling 1,484,407 square feet within the I (Industrial) land use district as well as a General Plan Amendment and Specific Plan Amendment to amend the circulation element of the General Plan to realign Krameria Avenue, subject to all mitigation measures within the EIR, as well as findings included in the attached resolutions and conditions of approval, attached as Exhibit A and B to the map and plot plan resolutions.

2.

Case Number:	P12-102 P12-103 P12-130
Case Description:	P12-102 Amended Master Plot Plan P12-103 Amended Plot Plan P12-130 Amended Plot Plan
Case Type:	Amended Master Plot Plan Amended Plot Plan Amended Plot Plan
Applicant:	Kaiser Permanente
Owner:	Kaiser Foundation Hospitals
Representative:	Skyler Dennision
Location:	27300 Iris Avenue, 486-310-023, 024
Proposal:	An Amended Plot Plan (P12-130) to modify Conditions of Approval for PA11-0009 to eliminate the perimeter wall from the Medical Office Building project, An Amended Master Plot Plan (P12-102) to revise the current Master Site Plan and an Amended Plot Plan (P12-103) to accommodate a 8,229 first floor expansion of

the emergency room area of the existing hospital building. The application includes a revision to the interior of the existing building. The project site is in the Office Commercial zone (OC) within the Medical Office Overlay District (MOU).

Case Planner: Julia Descoteaux

Recommendation: **APPROVE** Resolution No. 2012-27 and thereby:

1. **RECOGNIZE** that P12-102 (Amended Master Plot Plan) and P12-103 (Amended Plot Plan) qualifies as an exemption in accordance with CEQA Guidelines, Section 15301 (Existing Facilities); and,

2. **APPROVE** P12-102 (Amended Master Plot Plan) and P12-103 (Amended Plot Plan) subject to the attached conditions of approval included as Exhibit A.

OTHER BUSINESS

STAFF COMMENTS

PLANNING COMMISSIONER COMMENTS

ADJOURNMENT

PLANNING COMMISSION STAFF REPORT

Cases:	PA11-0001(General Plan Amendment) PA11-0002-PA11-0006 (Master and 4 Plot Plans) PA011-0007 (Tentative Parcel Map No. 35879) P11-004 (Specific Plan Amendment) P11-005 (Environmental Impact Report)
Date:	December 13, 2012
Applicant:	Western RealCo
Representative:	Hogle-Ireland, Inc.
Location:	Southeast corner of Iris Avenue and Heacock Street
Proposal:	A General Plan Amendment (PA11-0001), Specific Plan Amendment (P11-004), Tentative Parcel Map No. 35879 (PA11-0007) and a Master Plot Plan (PA11-0002) and Four Plot Plans (PA11-0003 through PA11-0006), to amend the Circulation Element of the General Plan and Moreno Valley Industrial Area Plan (SP 208) to realign Krameria Avenue and subdivide a 75.05 gross acre (66.91 net acre) portion of land into four separate parcels to include four (4) individual industrial buildings totaling 1,484,407 square feet within the I (Industrial) land use district.
Recommendation:	Approval

SUMMARY

The applicant, Western RealCo, is requesting the approval of a tentative parcel map, master plot plan and four plot plans. Both a General Plan and Specific Plan Amendment are required for the realignment and reclassification of Krameria Avenue and will amend the Circulation Element of the General Plan and the Moreno Valley Industrial Specific Plan (SP 208).

BACKGROUND

The project was originally approved by City Council on September 25, 2009. Based on litigation proceedings through the County of Riverside Superior Court of California and a writ of mandate decision on June 22, 2010, the project was rescinded by the City Council on October 12, 2010. Based upon court proceedings, the applicant opted to prepare an Environmental Impact Report (EIR) to review potential construction noise impacts and further review project related environmental impacts as a whole.

On December 13, 2011, the City Council approved the authorization of the construction contract for the Heacock Street Bridge over the Perris Valley Storm Drain lateral. The construction of this project was recently completed and accepted by the City. The Heacock Street Bridge is located along Heacock Street, approximately 2,000 feet south of Iris Avenue. Said improvements along Heacock Street will improve access within the area of the proposed March Business Center project.

PROJECT DESCRIPTION

This proposed project includes nine (9) applications/components, including a General Plan amendment, Specific Plan amendment, tentative parcel map, master plot plan and four plot plans for approximately 66 net acres at the southeast corner of Iris Avenue and Heacock Street. The project proposes an industrial complex with four buildings (1,103,003 sq ft, 16,732 sq ft, 87,429 sq ft and 277,243 sq ft for a total of 1,484,407 sq ft). The proposed uses are consistent with the type and intensity of use envisioned under the Moreno Valley Industrial Area Plan (SP 208) and the Industrial land use district of the General Plan. The project also generally matches a prior approval at the site rescinded on October 12, 2010, to permit further environmental review. The following summarizes the discretionary components of the project:

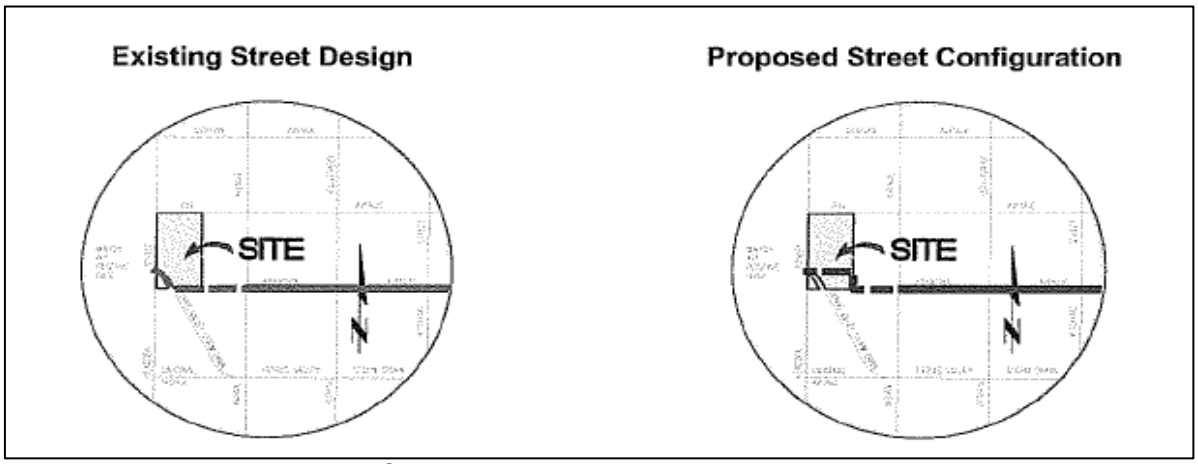
General Plan Amendment

The proposed General Plan Amendment will consist of amending the Circulation Element in regards to Krameria Avenue. The proposed change to Krameria Avenue's design includes:

- Changing the proposed physical location of the west end of Krameria Avenue from the east property line of the project site (future Cosmos Street) to Heacock Street;

- Changing the designation of Krameria Avenue from Indian Avenue to Heacock Street from Minor Arterial to Industrial Collector.

Currently, Krameria Avenue is constructed on the east side of Indian Avenue. The City's General Plan Circulation Element shows Krameria Avenue as ultimately being constructed to Heacock Street. The proposed amendment to the circulation element would remove the existing curvilinear design from future Cosmos Street to Heacock Street and replace it with a straight design (see diagram below).



The proposed realigning of Krameria Avenue will enable project to develop the site more efficiently while creating a functional and safe circulation system. The existing design has the potential of promoting high vehicle speeds from Indian Avenue to Heacock Street. With the proposed design, a vehicle driving down the proposed Krameria Street will be required to make a left or right turn onto future Cosmos Street, slowing down its speed, thus creating a safer environment. The redesign would also reduce the likelihood of mixing industrial truck traffic with residential commuter traffic.

Specific Plan Amendment

For consistency purposes, the Specific Plan also will be amended to change the location of Krameria Avenue between Indian Street and Heacock Street as well as change the designation from Minor Arterial to Industrial Collector. The Moreno Valley Industrial Specific Plan (SP 208) document will be revised accordingly to include all text changes as follows (Proposed deletions are shown as stricken text and additions are underlined):

Proposed text changes to Specific Plan No. 208 are as follows:

On Page IV-7, Section d. (Minor Arterials), the Moreno Valley Industrial Specific Plan (SP 208) minor arterials will include the following:

- Nandina Avenue (between Indian Street to ~~Kitching Street~~ <u>Perris Boulevard</u>)
- Indian Street

On Page IV-8, Section e. (Collector Streets), the Moreno Valley Industrial Specific Plan (SP 208) minor arterials will include the following:

Collector streets planned for the construction and improvement within the Project site include:

- Krameria Avenue (Indian Street to Heacock Street)

On Page V-14, under Minor Arterials (88' ROW):

- Nandina Avenue (between Indian Street to ~~Kitching Street~~ Perris Boulevard)
- Indian Street

On Page V-14, under Industrial Collector (78' ROW)

- Krameria Avenue (between Indian Street and Heacock Street)

In addition, diagrams or maps in the Specific Plan would be modified to the proposed standards mentioned above, including the Noise Contour Map, Circulation Map, Compatible Use Districts and Bikeways and Pedestrian Ways diagrams.

Tentative Parcel Map

Tentative Parcel Map 35879 will take the existing five (5) parcels and create four (4) parcels for the proposed four (4) from industrial buildings the existing five parcels. The applicant has proposed Tentative Parcel Map No. 35879 to subdivide an approximate 75 acre site into four (4) separate buildable parcels for various industrial related uses.

The proposed subdivision has been designed in accordance with the City Zoning Ordinance and the State Subdivision Map Act. The proposed subdivision of vacant land complies with the Specific Plan and Map Act in that all lots meet the minimum buildable size, all lots upon which development will take place will provide access to and from dedicated public streets and all lots conform to development standards within the Municipal Code.

Master Plot Plan & Plot Plans

The master plot plan proposes a four building industrial complex for the four designated parcels. Buildings 1 through 4 will also include individual plot plan reviews of each building within the master plot plan. The Master Plot Plan (PA11-0002) establishes a common architectural and landscape development concept for the entire Project, depicts the location of proposed circulation facilities, and depicts the relationship between proposed on-site structures.

The following information includes a breakdown of parcels, parcel and building sizes and proposed uses:

PARCEL	NET PARCEL SIZE	TOTAL BUILDING AREA	PROPOSED USE
1	2,077,688 s.f.	1,103,003 s.f.	Warehousing
2	512,072 s.f.	277,243 s.f.	Warehousing
3	258,479 s.f.	87,429 s.f.	Warehousing
4	67,144 s.f.	16,732 s.f.	Manufacturing
Total	**2,915,383 s.f.**	**1,484,407 s.f.**	**N/A**

Proposed uses for individual parcels include primarily industrial warehouse related activities for Parcels/Buildings 1 through 3. Parcel 1 is the largest industrial warehouse use at approximately 2,077,688 square feet. Parcel/Building 4 includes a very small building and parcel where space will likely limit the site an industrial manufacturing use. Currently, there are no specific uses or tenants proposed for any of the four buildings/parcels.

Site

The site is currently zoned Industrial (I) under Specific Plan 208 Moreno Valley Industrial Area Plan (SP208I). The project site is currently vacant and relatively flat. The project is located at the southeast corner of Iris Avenue and Heacock Street.

Surrounding Area

Surrounding areas within immediate proximity to the subject site are zoned predominately for industrial development. The zoning surrounding the proposed project site is Industrial (I) under Specific Plan 208 Moreno Valley Industrial Area Plan (SP208I) to the south, east, and north. Northeast of the site is zoned Residential Single-Family 10 (RS 10) and developed with a tract of small lot single-family homes that are approximately 20 years old. Although the nearest sensitive receptor (residence) is located approximately 115 feet northeast of the Project site across Iris Avenue, the nearest proposed truck bay is set back from the northeast corner of Parcel 1/Building 1 to the single-family home neighborhood and is approximately 500 feet away from the nearest residence.

The project is located directly west of another industrial complex (Iris Avenue/Indian Street project) that was approved by the City Council on July 8, 2008. The Iris Avenue/Indian Street project approval included future “A” Street, which will run along the eastern property boundary of this proposed project. Directly north of the project is a proposed industrial complex.

The project adheres to the buffer zone requirement and 300 foot proximity to a residential district established in the Moreno Valley Industrial Area Plan (SP No. 208) and will not allow for any outdoor storage or loading activities in the designated area. The features proposed by the Project closest to the residential areas or 300 feet from the residential neighborhood across from Iris Avenue would consist of a parking lot for passenger cars, the primary entry and office portion of the building on Parcel 1, and landscaping, which minimizes any associated impacts from the industrial project. Overall, the proposed industrial warehouse development is compatible with the current zone and the City’s General Plan Land Use Map.

Access/Parking

The project has been designed to separate truck and employee traffic and to restrict truck traffic from Iris Avenue. Truck access from the site to freeway (Interstate 215) will be from Heacock Street north to Cactus Avenue or via Nandina Avenue to Indian Street and Harley Knox Avenue from the south. In the future, additional access to the freeway will be available via Krameria Avenue to Indian Street and Heacock Street to Harley Knox Avenue.

Future employees in Building 1 will be able to access the project from three automobile only access driveways off of Iris Avenue and two driveways off of Krameria Avenue. Other employee only access points include one off of Krameria Avenue into Building 3 and one off of future Cosmos Street for Building 2. Employee parking will be included for Building 4 off a shared truck/automobile driveway (limited truck activity) Trucks will have access to the site from three driveways along Heacock Street (two for Building 1 and the one shared driveway for Building 4). Truck access to Buildings 2 and 3 will be included from two individual driveways off Krameria Avenue. Building 1 will also have truck access from future Cosmos Street (two driveways).

Parking for the industrial complex is consistent with what was approved for the original project back in 2010. The proposed industrial development will meet the required minimum vehicular parking standards for office, warehouse and distribution uses. The project as a whole provides 678 vehicular parking stalls, of which 418 parking spaces are provided for Parcel 1,132 parking stalls provided for Parcel 2, 86 stalls provided for Parcel 3 and 42 stalls provided for Parcel 4. Together, the four buildings exceed the minimum vehicular parking requirements for a warehouse/office use. There are 228 truck bays and 181 truck/trailer parking stalls for the site. Although the ratio does not actually meet a one (1) truck/trailer parking stall for every dock door, the project was originally approved for 181 truck/trailer parking stalls and the designated stalls should adequately service the industrial complex.

All proposed truck/trailer parking spaces and loading dock areas are screened from view of the public right of way by a 14 feet high decorative screen wall. The standard parking spaces will not be enclosed by a screen wall. Additional dense landscape will be provided adjacent to the screen walls to further soften their appearance.

Design/Landscaping

The project's architectural and landscape design conforms to all development standards of Specific Plan No. 208 "Industrial" zone as required within the Moreno Valley Municipal Code.

All four buildings being proposed are of concrete tilt-up construction with the two largest being rectangular in shape. The smaller two buildings have an angled wall along their frontage with the existing Riverside County Flood Control Channel. All the buildings are approximately 36 feet in height and the more decorative architectural features of the building reaching heights between 38 and 45 feet. The buildings have the same architectural style as was previously approved and are using neutral earth tone colors with a darker accent color. The buildings are predominantly rectangular in

shape with flat roofs, and the proposed windows have a greenish reflective glazing finish. The more decorative architectural features of the buildings are located at entrances to the offices. The building wall heights vary to make the buildings less monotonous. The project is also providing concrete tilt-up walls along Heacock Street, Iris Avenue, Krameria Avenue and Proposed Cosmos Street so that the loading docks are not visible from the public right of way. The proposed screen walls will be 14 feet in height to fully screen trucks and trailers, and will match the architecture of the buildings.

The proposed project also conforms to the requirements of the City's Design Guidelines. The project is conditioned, so that landscape plans be prepared in accordance with the City's Landscape Development Guidelines and Specifications which includes street trees and enhanced landscaping at street corners and entries in the project.

REVIEW PROCESS

The first staff review of this project took place at the Pre-PRSC meeting on February 8, 2011. Project revisions were submitted in August 2011. A second Pre-PRSC review of the project was conducted on September 13, 2011. A third two week internal review of the project was conducted between September 25, 2012 and October 9, 2012. The project was scheduled for Planning Commission after all identified issues had been addressed and the final Environmental Impact Report (EIR) was completed and able to be distributed to the public.

ENVIRONMENTAL

An initial study was prepared to support the recommend environmental finding that an Environmental Impact Report (EIR) is appropriate for this project. In reviewing the environmental aspects of the proposed Industrial warehouse complex and the writ of mandate decision made by the County of Riverside Superior Court back in 2010, it was determined that an Environmental Impact Report (EIR) with an emphasis on construction noise was appropriate. In addition, the site was re-evaluated and other applicable environmental studies were prepared to compliment the EIR.

A Notice of Preparation for the EIR was issued June 9, 2011, and a public meeting to receive input on the issues to be covered by the EIR was held at City Hall on June 29, 2011. Subsequent to that meeting, draft environmental documents were prepared by the applicant's consultant T&B Planning and submitted to the City and its peer consultant for review. After City review of the draft environmental documents and revisions to address City questions and concerns, per California Environmental Quality Act (CEQA) Guidelines, the Draft EIR was circulated for a 45-day public review period. Notice of completion and availability of the Draft EIR was documented with a starting date of April 27, 2012, with the 45-day plus review period ending on June 13, 2012. To facilitate increased input, the City accepted comments well past the 45-day review period. The Draft EIR was sent to numerous State and local agencies and interested parties and was available to the public at the library and via the City's website, while comment letters were provided during the 45-day review period. Eleven (11) comment

letters were received during the draft review period and included in the EIR process. Responses to all of these comments are included in the Final version of the EIR.

The Final EIR, including Responses to Comments and related final documents were mailed to all commenting parties on November 28, 2012, to allow for their review prior to Planning Commission hearing. This notice period slightly exceeds the minimum notice period of 10 days as provided for in CEQA. As was the case with the Draft EIR, the Final EIR was provided for public review at City Hall, the City Library and posted on the City's website.

The EIR analyzed 12 potential areas where significant environmental impacts could result from the development of the Project. Three of those, air quality, noise and traffic, were found to have significant and unavoidable environmental impacts after the imposition of all feasible mitigation measures. The remaining nine (9) areas: aesthetics, biological resources, cultural resources, geology/soils, greenhouse gas emissions, hazards and hazardous materials, hydrology/water quality, land use/planning, and utilities and service systems, were found to have either no significant and unavoidable environmental impacts or that the environmental impacts could be mitigated into a level of insignificance.

The Final Environmental Impact Report recommends approximately 40 project specific and cumulative mitigation measures to reduce impacts related to air quality, biological resources, cultural resources, greenhouse gas emissions, hazards and hazardous materials, noise, and transportation/traffic. The California Environmental Quality Act (CEQA) also requires that when a public agency completes an environmental document that includes measures to mitigate or avoid significant environmental effects, the public agency must adopt a Mitigation Monitoring Program (MMP) for the changes to the project that it has adopted or made a condition of project approval in order to mitigate or avoid significant environmental impacts. The appropriate reporting or monitoring plan must be designed to ensure compliance during project implementation. Monitoring will include: verification that each mitigation measure has been implemented, recordation of the actions taken to implement each mitigation measure; and retention of records in the project file. The City would be responsible for monitoring and implementing the mitigation measures included in this monitoring plan. Reporting established for each of the mitigation measures provides a record that the particular measure is being implemented.

Although impacts to air quality, noise and transportation/traffic cannot be reduced to less than significant levels, the California Environmental Quality Act (CEQA) allows for statement of overriding considerations and findings to be considered. CEQA requires the decision making agency to balance the economic, legal, social, technological or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the proposed project. This would include project benefits such as the creation of jobs or other beneficial project features versus project impacts that cannot be mitigated to less than significant levels. If the benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable". The Statement of Overriding Consideration and corresponding findings are attached to the report and EIR resolution as Attachment 2 for review and consideration.

The Planning Commission will have the opportunity to take public testimony on the EIR and project and forward a recommendation to City Council. Before the proposed project can be approved, the City Council will have the opportunity to review the final environmental document, receive public testimony and either certify or reject the EIR and subsequent Statement of Overriding Considerations and Mitigation Monitoring Program.

NOTIFICATION

Public notice was sent to all property owners of record within 300' of the project. The public hearing notice for this project was also posted on the project site and published in the local newspaper.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission take the following action:

APPROVE Resolution Nos. 2012-33, 2012-34, 2012-35, and 2012-36 and thereby **RECOMMEND** that the City Council:

1. **CERTIFY** the Environmental Impact Report, including Statement of Overriding Considerations and the required Mitigation Monitoring Program (P11-005) for P11-004 (Specific Plan Amendment), PA11-0001 (General Plan Amendment), PA11-0002-PA11-0006 (Master Plot Plan and Individual Plot Plans) and PA011-0007 (Tentative Parcel Map No. 35879) pursuant to the California Environmental Quality Act (CEQA) Guidelines;

2. **APPROVE** PA07-0151(Tentative Parcel Map 35879), PA07-0152 (Master Plot Plan), PA07-0153, PA07-0154, PA07-0155 and PA07-0156 (Plot Plans), PA08-0057 (General Plan Amendment) and P08-060 (Specific Plan Amendment) to subdivide a 75.05 gross acre (66.93 net acre) portion of land into four separate parcels to include four (4) individual industrial buildings totaling 1,484,407 square feet within the I (Industrial) land use district as well as a General Plan Amendment and Specific Plan Amendment to amend the circulation element of the General Plan to realign Krameria Avenue, subject to all mitigation measures within the EIR, as well as findings included in the attached resolutions and conditions of approval, attached as Exhibit A and B to the map and plot plan resolutions.

Prepared by:

Mark Gross, AICP
Senior Planner

Approved by:

John C. Terell, AICP
Planning Official

ATTACHMENTS:

1. Public Hearing Notice
2. Planning Commission EIR Resolution 2012-33
   Exhibit A – Statement of Overriding Considerations
   Exhibit B – Mitigation Monitoring Program
3. Planning Commission General Plan and Specific Plan Amendment Resolution No. 2012-34
   Exhibit A - General Plan Amendments
   Exhibit B - Specific Plan No. 208 Amendments
4. Planning Commission Master Plot Plan and Individual Plot Plans Resolution No. 2012-35
   Exhibit A – Conditions of Approval
5. Planning Commission Tentative Parcel Map Resolution No. 2012-36
   Exhibit A – Conditions of Approval
6. Aerial Photo
7. Zoning Map
8. Draft EIR
9. Final EIR
10. Tentative Parcel Map 35879
11. Master Plot Plan
12. Building Elevations – Building 1
13. Building Elevations – Building 2
14. Building Elevations – Building 3
15. Building Elevations – Building 4

Notice of
PUBLIC HEARING

This may affect your property. Please read.

Notice is hereby given that a Public Hearing will be held by the Planning Commission of the City of Moreno Valley on the following item(s):

CASES: PA11-0001 (General Plan Amendment)
PA11-0002-PA11-0006 (Master & 4 Plot Plans)
PA011-0007 (Tentative Parcel Map 35879)
P11-004 (Specific Plan Amendment)
P11-005 (Environmental Impact Report)

APPLICANT: Hogle-Ireland Inc.

OWNER: CSIP WR Moreno Valley LLC

REPRESENTATIVE: Western Realco, LLC

LOCATION: SE corner of Iris Avenue and Heacock Street.

PROPOSAL: A tentative parcel map, master plot plan and four (4) plot plans to subdivide a 75.05 gross acre (66.91 net acre) portion of land into four separate parcels to include four (4) individual industrial buildings totaling 1,484,407 square feet within the I (Industrial) land use district. The project also includes a General Plan Amendment to amend the circulation element and an amendment to Specific Plan No. 208 to realign Krameria Avenue. The project generally matches a prior approval rescinded on 10/12/10 to permit additional environmental review.

ENVIRONMENTAL DETERMINATION: An Environmental Impact Report (P11-005), Statement of Overriding Considerations and Mitigation Monitoring Program have been prepared for this project (SCH#2011061033). A draft document was circulated to the public (including interested parties/responsible agencies) for review from April 30, 2012 to June 13, 2012. The Final EIR is provided on the City's website at www.moval.org.

COUNCIL DISTRICT: 4

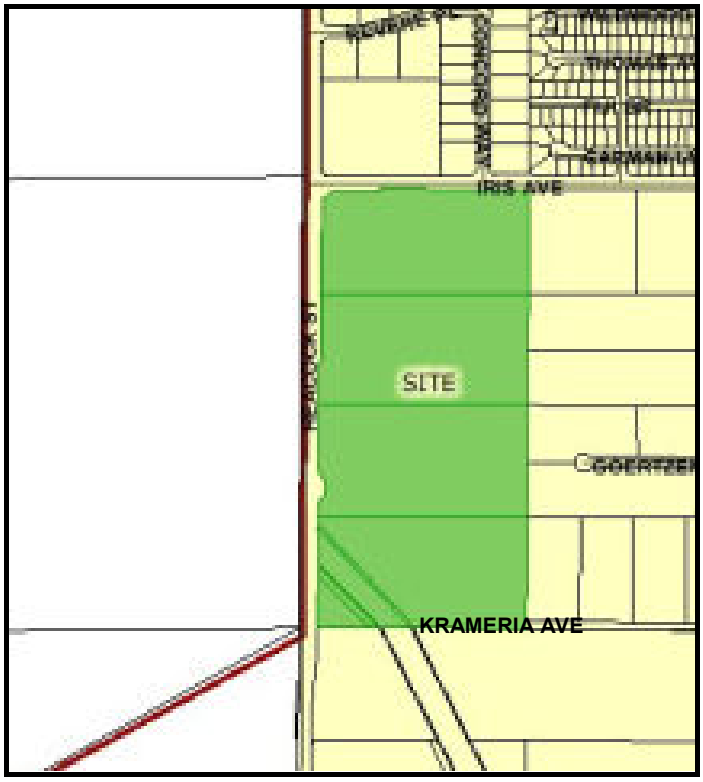
STAFF RECOMMENDATION: Recommend approval with mitigation to the City Council.

Any person interested in any listed proposal can contact the Community & Economic Development Department, Planning Division, at 14177 Frederick St., Moreno Valley, California, during normal business hours (7:30 a.m. to 5:30 p.m., Monday through Thursday), or may telephone (951) 413-3206 for further information. The associated documents will be available for public inspection at the above address.

In the case of Public Hearing items, any person may also appear and be heard in support of or opposition to the project or recommendation of adoption of the Environmental Determination at the time of the Hearing.

The Planning Commission, at the Hearing or during deliberations, could approve changes or alternatives to the proposal.

If you challenge any of these items in court, you may be limited to raising only those items you or someone else raised at the Public Hearing described in this notice, or in written correspondence delivered to the Planning Commission at, or prior to, the Public Hearing.



LOCATION N ↑

PLANNING COMMISSION HEARING

City Council Chamber, City Hall
14177 Frederick Street
Moreno Valley, Calif. 92553

DATE AND TIME: December 13, 2012 at 7 PM

CONTACT PLANNER: Mark Gross

PHONE: (951) 413-3215

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PLANNING COMMISSION RESOLUTION NO. 2012-33

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY, RECOMMENDING TO THE CITY COUNCIL, CERTIFICATION OF THE FINAL ENVIRONMENTAL IMPACT REPORT (P11-005), ADOPTION OF THE FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS, AND APPROVAL OF THE MITIGATION MONITORING PROGRAM FOR THE WESTERN REALCO MARCH BUSINESS CENTER PROJECT, GENERALLY LOCATED ON THE SOUTHEAST CORNER OF IRIS AVENUE AND HEACOCK STREET

WHEREAS, on December 13, 2012, the Planning Commission of the City of Moreno Valley held a public hearing to consider the proposed project, which an approximate 1,484,407 square foot industrial warehouse complex consisting of four parcels of land, with ancillary and office uses, on an approximately 75.05 acre (66.93 net acre) portion of land located on the southeast corner of Moreno Beach Drive and Iris Avenue

WHEREAS, the project includes applications for Tentative Tract Map No. 35879 (PA11-0007), a Specific Plan Amendment (P11-004), General Plan Amendment (PA11-0001), and individual plot plans (PA11-0002 through PA11-0006). All are related but will be included in separate resolutions with individual findings and shall not be approved unless said Environmental Impact Report (P11-005) is certified and approved.

WHEREAS, a Draft Environmental Impact Report (DEIR) was initially prepared for this project. Said DEIR was initially circulated to the public and to responsible agencies for a 45 day review period on April 27, 2012, while the review period ended on June 13, 2012 The City published a Notice of Availability in the local newspaper (Press Enterprise), posted the Notice of Availability at the Riverside County Clerk's office, and distributed copies of the draft Final EIR to the State Clearinghouse, local agencies and other interested parties;

WHEREAS, since April 27, 2012, copies of the draft EIR have been made available to the public at the City's offices, on the City's website and at the City's public library;

WHEREAS a Final EIR, (including the Draft EIR), and responses to comments, have been completed and is being recommended for certification, prior to the approval of discretionary permits related to the project. The City has prepared responses to all comments received and have been included in the Final EIR.;

WHEREAS, on December 13, 2012, the Planning Commission of the City of Moreno Valley conducted a public hearing to consider the proposed project and to provide a recommendation on the application;

ATTACHMENT 2

WHEREAS, on December 13, 2012, the Planning Commission forwarded the Final Environmental Impact Report (EIR) document to the City Council for consideration;

WHEREAS, the draft and final EIR concerning the proposed March Business Center Project were prepared in sufficient detail and duly circulated in compliance with the California Environmental Quality Act (CEQA), the State CEQA Guidelines and the City of Moreno Valley Rules and Procedures to Implement CEQA;

WHEREAS, the Final EIR recommended to the City Council includes all responses to comments thereon;

WHEREAS, the final EIR includes a review of potential impacts associated with the implementation of the March Business Park Project, including, but not limited air quality, noise and traffic. A statement of overriding considerations is provided for environmental impacts related to air quality, noise and transportation/traffic impacts.;

WHEREAS, a Mitigation Monitoring Program has been completed to ensure that all of the mitigation measures outlined in the final EIR are implemented, and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred.

NOW, THEREFORE, the Planning Commission of the City of Moreno Valley does hereby resolve as follows:

1. The Planning Commission hereby recommends that the City Council certify that the final Environmental Impact Report (EIR) for the March Business Park Project on file with the Community and Development Department, incorporated herein by this reference, has been completed in compliance with the California Environmental Quality Act, that the Planning Commission reviewed and considered the information contained in the final EIR and that the final EIR reflects the City's independent judgment and analysis; and

2. The Planning Commission recommends that the City Council hereby adopt the Findings and Statement of Overriding Considerations regarding the final EIR for the March Business Park project, attached hereto as Exhibit A; and

3. The Planning Commission recommends that the City Council hereby approve the Mitigation Monitoring Program and final EIR for the proposed March Business Park project, attached hereto as Exhibit B.

APPROVED this _____day of _____, 2012.

_____
Meli Van Natta
Chair, Planning Commission

ATTEST:

_____
John C. Terell, Planning Official
Secretary to the Planning Commission

APPROVED AS TO FORM:

_____
City Attorney

Attachments

Facts, Findings and Statement of Overriding Considerations Regarding the Environmental Effects of the Approval of the March Business Center Project (State Clearinghouse No. 2011061033)

I. INTRODUCTION

The City Council of Moreno Valley (the "Council") in approving the March Business Center project (the "Project"), makes the Findings described below and adopts the Statement of Overriding Considerations presented at the end of the Findings. The Findings are based upon the entire record before the Council, as described in Section III below, including the Environmental Impact Report ("EIR") prepared for the Project by the City, acting as lead agency under the California Environmental Quality Act ("CEQA").

II. PROJECT SUMMARY

A. PROJECT DESCRIPTION

The Project consists of the development of business center land uses in two phases: Phase 1, which will include a 1,103,003 square foot ("s.f.") warehouse and distribution building (Parcel 1). Phase 2 will include two warehouse and distribution buildings comprising 277,243 s.f. and 87,429 s.f. (Parcels 2 and 3, respectively) and a 16,732 s.f. light industrial building (Parcel 4). The Project will cover approximately 75.05 gross acres. The Project Site also includes 3.38 acres of land owned by the City that is dedicated public right-of-way for Heacock Street and Iris Avenue. The discretionary actions associated with the Project include a General Plan Amendment (PA11-0001), Specific Plan Amendment (P11-004), Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan (PA11-0002), and four (4) individual Building Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006).

The Project Site is bound on the north by Iris Avenue, on the west by Heacock Street, on the east by the proposed alignment of Krameria Avenue and proposed Cosmos Street, and on the south by vacant land.

The Project requires a General Plan Amendment ("GPA") to modify the Circulation Element of the City of Moreno Valley General Plan to change the planned alignment and classification of a segment of Krameria Road between Heacock Street and proposed Cosmos Street. Under existing conditions, Krameria Avenue terminates east of the Project Site at Indian Avenue; however, the City's General Plan Circulation Element calls for Krameria Avenue to be extended to Heacock Street diagonally across the southern portion of the Project Site, meeting Heacock Street at an oblique angle. The GPA provides a 90-degree intersection where Krameria Avenue meets Heacock Street and provides a perpendicular connection between Heacock Street and proposed Cosmos Street to allow for a safer and more efficient local circulation system. In addition, the General Plan Amendment downgrades the classification for the Krameria Avenue

segment between Indian Avenue and Heacock Street from a "Minor Arterial (88-foot right-of-way)" to an "Industrial Collector (78-foot right-of-way).

The realignment and reclassification of Krameria Avenue through the Project Site also requires a Specific Plan Amendment ("SPA") to incorporate changes into the Moreno Valley Industrial Area Plan ("MVIAP"). The SPA changes the planned alignment of the on-site segment of Krameria Avenue and also changes the classification of the segment of Krameria Avenue between Indian Avenue and Heacock Street from a "Minor Arterial (88-foot right-of-way)" to an "Industrial Collector (78-foot right-of-way)."

Tentative Parcel Map No. 35879 ("TPM No. 35879") subdivides the 75.05-acre property into four (4) parcels. Parcel 1 comprises 55.43 gross acres (47.70 net acres); Parcel 2 encompasses 13.10 gross acres (11.76 net acres); Parcel 3 consists of 6.63 gross acres (5.93 net acres); and Parcel 4 comprises 1.89 gross acres (1.54 net acres). TPM No. 35879 dedicates land to the City of Moreno Valley for the widening of Iris Avenue, in addition to land area within the Project Site for the construction of Krameria Avenue and Cosmos Street. TPM No. 35879 also includes the vacation of two (2) planned roadway rights-of-way, including a portion of Krameria Avenue along the Project's southern boundary, and an un-named cul-de-sac street extending approximately 1,000 feet east from Heacock Street within Parcels 2 and 3 of TPM No. 35879. TPM No. 35879 also identifies the location and sizing of water and wastewater infrastructure, drainage facilities, and identifies the extent and amount of grading activities to be conducted on-site.

The Project also includes one (1) Master Plot Plan (PA11-0002) and four (4) individual Building Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006). The Master Plot Plan establishes a common architectural and landscape development concept for the entire Project, depicts the location of proposed circulation facilities, and depicts the relationship between proposed on-site structures. The individual Building Plot Plans provide site plans, including a detailed architectural and landscape design for Parcel 1 (PA11-0003), Parcel 2 (PA11-0004), Parcel 3 (PA11-0005), and Parcel 4 (PA11-0006). In total, the Plot Plans provide for a total of 1,484,407 s.f. of building area within the Project Site.

B. PROJECT OBJECTIVES

The objectives for the Project are to:

1. To develop an industrial business center in conformance with the land use designations applied to the property by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208).

2. To develop a business center that can accommodate light industrial and warehouse distribution tenants within close proximity to regional transportation routes.

3. To develop a business center that is financially feasible to construct and operate.

4. To make efficient use of a property by achieving a minimum Project-wide floor area ratio (FAR) of 0.50.

5. To attract new businesses and jobs to the City of Moreno Valley, thereby providing a more equal jobs/housing balance both in the City and in Riverside County and reducing the need for members of the existing local workforce to commute outside the area for employment.

6. To modify the planned alignment of Krameria Avenue to enable efficient development of the Project Site and improve circulation and public safety within the area of the Moreno Valley Industrial Area Plan.

7. To develop a business center with an architectural design and operational characteristics that are complementary with existing and planned development in the immediate vicinity.

8. To construct a business center that incorporates energy efficiency and low water use principles in order to increase environmental quality during construction and operation.

III. ENIRONMENTAL REVIEW AND PUBLIC PARTICIPATION

The City has conducted an extensive environmental review of the Project to ensure that both the City's decision makers and the public are fully informed about potential significant environmental effects of the Project; to identify ways that environmental damage can be avoided or significantly reduced; to prevent significant, avoidable damage to the environment by requiring changes in the Project through the use of mitigation measures which have been found to be feasible; and to disclose to the public the reasons why the City has approved the Project in the manner chosen in light of the significant environmental effects which have been identified in the EIR. In order to do this, the City, as the lead agency under CEQA, has done all of the following:

1. Prepared and distributed an Initial Study/Notice of Preparation, dated June 2, 2011, a copy of which was circulated on June 13, 2011 through the State Clearinghouse to various state agencies for their comments;

2. Sent the Initial Study/Notice of Preparation, which contained the notice of a scoping meeting held on June 29, 2011, to each of the governmental agencies, organizations and individuals shown on the distribution list for the Notice of Preparation/Initial Study, Appendix A to the Draft EIR, on June 13, 2011;

3. Held a public scoping meeting on June 29, 2011, to solicit comments from the public on what should be analyzed in the EIR;

4. Sent a Notice of Completion and a copy of the Draft EIR to the State Clearinghouse on April 27, 2012;

5. Filed a Notice of Availability with the Riverside County Clerk on April 27, 2012, informing the public that the Draft EIR was available for public review for a 48-day period beginning on April 27, 2012, and ending on June 11, 2012;

6. Mailed the Notice of Availability to all organizations and individuals who had previously requested the Notice on April 27, 2012;

7. Mailed the Notice of Availability to all residents and property owners within 300 feet of the Project Site on April 27, 2012;

8. Provided copies of the Draft EIR to forty-seven (47) public agencies, organizations and individuals on April 27, 2012;

9. Placed copies of the Draft EIR on the City's website, at the City's Planning Department's public counter and at the public library located at 25480 Alessandro Boulevard on April 27, 2012;

10. Published the Notice of Availability on April 27, 2012, in the Press Enterprise, which is the newspaper of general circulation which has the largest circulation in the areas affected by the Project;

11. Proposed responses to comments on the Draft EIR received during and after the 45-day comment period on the Draft EIR, which have been included in the Final EIR;

12. Published a Notice on November 30, in the Press Enterprise, a newspaper of general circulation which has the largest circulation in the areas affected by the Project, that the City's Planning Commission would hold a public hearing on December 13, 2012 to consider the Final EIR and the Project in order to provide recommendations to the Council;

13. Sent copies of the Final EIR on November 29, 2012, to all public agencies, organizations, and individuals who had submitted comments;

14. Held a public hearing of the City's Planning Commission to consider adequacy of the Final EIR on December 13, 2012, and, at the conclusion of the hearing, recommended that the Council certify that the Final EIR had been prepared in full compliance with CEQA;

15. Published a notice on DATE, in the Press Enterprise, a newspaper of general circulation which has the largest circulation in the areas affected by the Project, that the Council would hold a public hearing on DATE, to consider certification of the Final EIR has having been prepared in compliance with CEQA and the approval of the Project;

16. Mailed notice of the Council's hearing to all residents and property owners within 300 feet of the Project Site on DATE;

17. Sent notice of the Council's hearing to all organizations and individuals who had previously requested notification of anything having to do with the Project on DATE; and

18. Held a public hearing of the Council on DATE, and, after full consideration of all comments, written and oral, certified that the Final EIR had been completed in compliance with CEQA and approval of the Project.

All of the documents identified above and all of the documents which are required to be part of the record pursuant to Public Resources Code § 21167.6(e) are on file with the City's Community Development Department, Planning Division, located at 14177 Frederick Street, Moreno Valley, CA 92552-0805. Questions should be directed to Mark Gross, AICP, Senior Planner, in the Division.

A. INDEPENDENT JUDGMENT FINDING

Finding: The Final EIR for the Project reflects the City's and the Council's independent judgment and analysis.

Factual Basis for the Finding: The EIR was prepared by T&B Planning, Inc., a professional consulting firm hired and funded by the Project Applicant, but working under the supervision and direction of Planning Division staff of the City's Community Development Department. The EIR was also thoroughly reviewed by Michael Brandman Associates, an expert consultant firm hired and paid by the City with funding provided by the Project Applicant to provide independent peer review and assure the exercise of thorough and independent review and judgment by the City. The Council, as the City's final decision making body for the Project, received and reviewed the Final EIR and the comments, both written and oral, provided by public agencies and members of the public prior to certifying that the Final EIR complied with CEQA. The participation of City Staff in selection and approval of T&B Planning, Inc. and Michael Brandman Associates as the EIR Consultants, the professional qualifications and reputation of the EIR Consultants, the supervision and direction of the EIR Consultants by the City Staff, the thorough and independent review of the Draft and Final EIRs, including comments and responses to comments, by both the City Staff and Michael Brandman Associates and the review and careful consideration by the City

Council of the Final EIR, comments and responses to comments all conclusively show that the Final EIR is the product of and reflects the independent judgment and analysis of the City as the Lead Agency, and of the City Council as its governing body.

B. FINDING OF THE ABSENCE OF ANY NEED TO RECIRCULATE THE FINAL EIR

Finding: The Council finds that the Final EIR does not add significant new information to the Draft EIR that would require recirculation of the Project EIR.

Factual Basis for the Finding: The Council recognizes that the Final EIR incorporates information obtained and produced after the Draft EIR was completed and that the Final EIR contains additions, clarifications and minor modifications to the Draft EIR. The Council has reviewed and considered the Final EIR and all of the information contained in it and has determined that the new information added to the Final EIR does not involve a new significant environmental impact, a substantial increase in the severity of an environmental impact nor a feasible mitigation measure or an alternative considerably different from others previously analyzed that the Project applicant declined to adopt and that would clearly lessen the significant environmental impacts of the Project. No information provided to the Council indicates that the Draft EIR was inadequate or conclusory or that the public was deprived of a meaningful opportunity to review and comment on the Draft EIR.

C. GENERAL TREATMENT OF MITIGATION MEASURES

It is the Council's intention to adopt all mitigation measures recommended by the Final EIR. If a measure has been omitted from the Conditions of Approval, from the Findings or from the Mitigation Monitoring Program (the "MMP"), a copy of which is attached as Exhibit A and which is hereby adopted, that mitigation measure shall be deemed to be adopted pursuant to this paragraph.

In addition, all Conditions of Approval and the MMP repeating or rewording mitigation measures recommended in the Final EIR are intended to be substantially similar to the mitigation measures as stated in the Final EIR and are found to be equally effective in avoiding or lessening the identified environmental impact.

IV. ENVIRONMENTAL IMPACTS AND FINDINGS

Based on the Initial Study, Appendix A to the Draft EIR, and the responses to the Notice of Preparation, the EIR analyzed 12 potential areas where significant environmental impacts could result from the development of the Project. Three of those, air quality, noise and traffic, were found to have significant and unavoidable environmental impacts after the imposition of all feasible mitigation measures. The remaining nine (9) areas: aesthetics, biological resources, cultural resources, geology/soils, greenhouse gas emissions, hazards and hazardous materials, hydrology/water quality, land use/planning, and utilities and service systems, were found to have either no significant and unavoidable environmental impacts or that the environmental impacts could be mitigated into a level of insignificance. The description of each environmental area, the potential impacts and the feasible mitigation measures are set forth in Section 4.0 of the Draft EIR together with the changes and additions set forth in Section F.2.3 of the Final EIR.

A. IMPACTS IDENTIFIED IN THE EIR AS POTENTIALLY SIGNIFICANT THAT HAVE BEEN MITIGATED TO LESS THAN SIGNIFICANT

1. AIR QUALITY

a. Potential Significant Impact: Exposure of sensitive receptors to substantial pollutant concentrations (Threshold 4)

Finding: Construction of the Project has the potential to expose nearby sensitive receptors to substantial concentrations of fine particulate matter (10 microns or smaller) ("PM10") and fine particulate matter (2.5 microns or smaller) ("PM2.5"). Long-term operation of the Project will not expose nearby sensitive receptors to substantial pollutant concentrations.

Factual Basis for the Finding: As discussed on Pages 4.2-19 through 4.2-21 of the Draft EIR, and in the Project's Air Quality Impact Analysis and Mobile Source Health Risk Assessment (Draft EIR Appendices B1 and B2), Project-related long-term operational emissions will not exceed localized emissions thresholds established by the South Coast Air Quality Management District ("SCAQMD) and will therefore not expose sensitive receptors to substantial pollutant concentrations. The results of the Mobile Source Health Risk Assessment indicate that diesel particulate emissions generated during operation of the proposed Project also will not create a significant health risk to sensitive receptors in the vicinity of the Project Site.

Construction-related emissions of PM10 and PM2.5 will exceed the SCAQMD localized thresholds for 24-hour concentrations of particulate matter. Accordingly,

construction of the Project has the potential to expose nearby sensitive receptors to substantial concentrations of PM10 and PM2.5. However, incorporation of measures that reduce the amount of particulate matter (dust) generated during construction activities will reduce emissions of PM10 and PM2.5 to below the SCAQMD localized thresholds. Accordingly, Mitigation Measures 4.2-1 and 4.2-2, as set forth in the MMP attached as Exhibit A, have been imposed as conditions of approval of the Project.

2. BIOLOGICAL RESOURCES

a. Potential Significant Impact: Substantial adverse effect on federally and California protected and special-status plant and wildlife (Threshold 1)

Finding: The Project Site contains suitable habitat for the burrowing owl and nesting migratory birds, which could be adversely affected associated with development of the Project. The imposition of Mitigation Measures 4.3-1 through 4.3-3 require pre-construction species surveys, no habitat clearing during the nesting season if the site is occupied, and requirements to follow Western Riverside County Multiple Species Habitat Conservation Plan ("MSHCP") requirements and California Department of Fish and Game protocol for occupied habitat will reduce the impacts to less than significant.

Factual Basis for the Finding: As discussed on Pages 4.3-15 and 4.3-16 of the Draft EIR, and in the Project's Biological Resources Report (Draft EIR Appendix C), the Project Site contains suitable habitat for the burrowing owl and nesting migratory birds. Burrowing owls, if present on the Project Site just prior to the start of construction, could be directly impacted by Project construction activities. If the Project Site is occupied, the Project has the potential to directly or indirectly impact migratory birds. However, pre-construction species surveys of the Project Site, avoidance of clearing and grading activities during the nesting season if the Site is occupied, and requirements to follow Western Riverside County MSHCP requirements and California Department of Fish and Game protocol for occupied habitat will ensure that the impacts will be less than significant. Accordingly, Mitigation Measures 4.3-1 through 4.3-3, as set forth in the MMP attached as Exhibit A, have been imposed as conditions of approval of the Project.

B. IMPACTS IDENTIFIED IN THE EIR AS BEING SIGNIFICANT AND UNAVOIDABLE EVEN AFTER THE IMPOSITION OF ALL FEASIBLE MITIGATION MEASURES

1. AIR QUALITY

a. Significant Unavoidable Impact: Violation of air quality standard, contribution to air quality violation, or cumulatively considerable net increase of a criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (Thresholds 2 and 3)

Finding: Construction of Phase 1 of the Project will exceed the SCAQMD regional threshold for oxides of nitrogen ("NOx"). In addition, the South Coast Air Basin ("SCAB") does not attain state criteria for NOx concentrations. NOx also is a precursor for ozone, and the SCAB is identified as a federal and state non-attainment area for ozone. Accordingly, the Project's emissions of NOx during Phase 1 of construction will exceed the SCAQMD regional threshold for this pollutant and will result in a net increase of a criteria pollutant for which the Project region is in non-attainment, which represents a significant and unavoidable impact. In addition, long-term operation of the Project will exceed the SCAQMD regional thresholds for volatile organic compound ("VOC") and NOx emissions. Furthermore, the SCAB is a designated non-attainment area for NOx concentrations and for ozone concentrations (NOx is a precursor for ozone). The Project will be required to implement Mitigation Measures MM 4.2-1 through MM 4.2-3, MM 4.2-10, and Mitigation Measures MM 4.6-2 and MM 4.6-5 to reduce near-term construction-related emissions, which require the use of California Air Resources Board ("CARB") Tier III certified equipment or better for certain pieces of construction equipment; the use of "Zero-Volatile Compounds" paints and/or High Pressure Low Volume Applications, or the use of materials that do not require paint; posting of signage with contact information for dust complaints; the use of B20 bio-diesel fuel (if available) and minimization of diesel or gasoline powered electric generators during construction; and requirements to achieve 8% energy efficiency beyond that required by the 2008 California Building Code Title 24 requirements. In addition, the Project will be required to implement Mitigation Measures MM 4.2-4 through MM 4.2-10 and MM 4.6-3 through 4.6-10 as set forth the MMP to reduce long-term emissions to the greatest possible extent. These mitigation measures require the use of signage to minimize diesel truck-related emissions; the provision of adequate truck stacking at gates; signage indicating the location of the City's truck routes; the notification of future tenants of the availability of grant funding from available funding sources for truck retrofit and replacement; notification of future tenants about the availability of alternatively fueled cargo handling equipment; compliance with SCAQMD Rule 403 requirements; the use of

drought tolerant plants and water-efficient irrigation techniques; the use of United States Environmental Protection Agency ("USEPA") Certified WaterSense labeled or equivalent faucets, high-efficiency toilets, and water-conserving shower heads (if showers are proposed);; a reduction in energy consumption of 8% beyond the 2008 California Building Code Title 24 requirements; the use of light emitting diodes in traffic signals constructed as part of the Project; measures to reduce the generation of solid waste; the provision of parking spaces reserved for carpools or vanpools; the provision of electric vehicle charging stations; and measures to encourage carpooling by future tenants. Mitigation Measures MM 4.2-1 through MM 4.2-10 and Mitigation Measures MM 4.6-2 through MM 4.6-10 as set forth in the MMP have been imposed as conditions of approval for the Project. However, even with the imposition of the required mitigation, the Project's near-term emissions of NOx during Phase 1 of Project construction and long-term emissions of VOCs and NOx under long-term operation would not be reduced to a level below significant. There are no additional mitigation measures that will reduce emission of NOx during construction or emission of VOCs and NOx during long-term operation to a level below significant while still attaining most of the basic objectives of the Project.

Factual Basis for the Finding: As discussed on Pages 4.2-17 through 4.2-19 of the Draft EIR, and in the Project's Air Quality Impact Analysis (Draft EIR Appendix B1), construction and long-term operation of the Project will result in emissions of pollutants, including NOx and VOCs. The SCAQMD has established regional significant thresholds to determine whether the emission of any criteria pollutants will have a significant effect on regional air quality.

Construction activities associated with Phase 1 of the Project will result in the emission of 208.12 pounds per day of NOx, which exceeds the SCAQMD's regional threshold of 100 pounds per day. Emissions of all other criteria pollutants (VOCs, carbon monoxide ["CO"], oxides of sulfur ["SOx"], and PM2.5 and PM10) will not exceed the SCAQMD regional thresholds during construction activities associated with Phase 1, and none of the regional thresholds will be exceeded during the construction of Phase 2. Requiring the use of CARB Tier III certified equipment or better for certain pieces of construction equipment; the use of "Zero-Volatile Compounds" paints and/or High Pressure Low Volume Applications, or the use of materials that do not require paint; posting of signage with contact information for dust complaints; the use of B20 bio-diesel fuel (if available) and minimization of diesel or

gasoline powered electric generators during construction; and requirements to achieve 8% energy efficiency beyond that required by the 2008 California Building Code Title 24 requirements, will reduce near-term impacts due to emissions of criteria area pollutants to the greatest practical extent.

Under long-term operating conditions, emissions of VOCs and NOx are estimated to comprise 113.25 and 708.11 pounds per day, respectively, which will exceed the SCAQMD regional thresholds of 55 and 55 pounds per day (for VOCs and NOx, respectively) during both winter and summer months. Requiring the use of signage to minimize diesel truck-related emissions; the provision of adequate truck stacking at gates; signage indicating the location of the City's truck routes; the notification of future tenants of the availability of grant funding from available funding sources for truck retrofit and replacement; notification of future tenants about the availability of alternatively fueled cargo handling equipment; compliance with SCAQMD Rule 403 requirements; the use of drought tolerant plants and water-efficient irrigation techniques; the use of USEPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets, and water-conserving shower heads (if showers are proposed); a reduction in energy consumption of 8% beyond the 2008 California Building Code Title 24 requirements; the use of light emitting diodes in traffic signals constructed as part of the Project; measures to reduce the generation of solid waste; the provision of parking spaces reserved for carpools or vanpools; the provision of electric vehicle charging stations; and measures to encourage carpooling by future tenants will reduce long-term impacts due to emissions of criteria area pollutants to the greatest practical extent. It is likely that incorporation the measures described above will reduce the Project's long-term emissions of VOCs and/or NOx but because specific Project design features pursuant to MM 4.6-3 will be identified at the time of Project implementation, it is not possible to determine whether the required mitigation will reduce emissions to less than significant.

Mitigation Measures MM 4.2-1 through MM 4.2-10 and Mitigation Measures MM 4.6-2 through MM 4.6-10, as set forth in the MMP attached as Exhibit A, have

been imposed as conditions of approval of the Project. However, there are no additional, feasible mitigation measures that would reduce the emissions of NOx and VOCs to less than significant and that would feasibly attain most of the basic objectives of the Project. CEQA requires that mitigation measures must be fully enforceable, feasible, and have an essential nexus and proportionality to the impact. Operational emissions of VOCs and NOx associated with the Project are predominantly from off-site mobile source emissions that are beyond the control of the Project Applicant, future Project tenants, and the City of Moreno Valley. Local governments have no authority to enact vehicle emission standards, require vehicles to meet engine standards above the standards required by federal and state law, nor limit the number of miles that vehicles travel between their origins and destinations. Imposing daily limitations on the number of vehicles entering the Project is not required and such a limitation could have unintended adverse consequences, such as trucks stacking up outside the facility until after midnight waiting to enter. No other feasible mitigation measures are available that would avoid or lessen the Project's operational VOC and NOx emissions impact.

2. NOISE

a. Significant Unavoidable Impact: Short-term generation of noise levels in excess of local standards and/or a substantial permanent or periodic increase in ambient noise levels (Thresholds 2 and 3)

Finding: During construction of the Project, noise levels associated with Project construction activities will exceed levels given in the City of Moreno Valley Noise Ordinance. The Project will be required to implement Mitigation Measure MM 4.10-1 and MM 4.10-2, which require notes on future grading plans (limiting the hours of construction activities, requiring construction equipment to include properly operating and maintained mufflers, requiring placement of stationary construction equipment away from the northeastern corner of the site, requiring equipment staging areas to occur at a minimum distance of 1,105 feet away from the northeastern property boundary, and requiring adherence to City-approved construction haul routes), and the preparation of Construction Haul Route exhibits prior to grading or building permit issuance. Mitigation Measures MM 4.10-1 and MM 4.10-2 have been imposed as conditions of approval for the Project. The required mitigation will reduce construction-related noise levels; however, the identified mitigation

will not reduce the impacts to less than significant, and no additional feasible mitigation measures are available.

Factual Basis for the Finding: As discussed on Pages 4.10-10 through 4.10-16 of the Draft EIR, and in the Project's Noise Report and Supplemental Construction Noise Analysis (Draft EIR Appendices I1 and I2), temporary and intermittent noise levels will occur during daytime hours up to 79.9 A-weighted decibels ("dBA") when measured at a distance of 200 feet, which exceeds the City of Moreno Valley's Noise Ordinance standard of 65 dBA Leq at 200 feet. Existing sensitive receptors (residential homes) located northeast of the Project Site will be impacted by temporary construction noise when construction activities occur on the Project Site within 905 feet of the northeastern corner of the property boundary. Additionally, in the event that Project construction activities occur simultaneously with construction activities on adjacent properties to the north or east, cumulative construction-related noise levels could be in excess of 79.9 dBA when measured at a distance of 200 feet. Requiring notes on future grading plans (limiting the hours of construction activities, requiring construction equipment to include properly operating and maintained mufflers, requiring placement of stationary construction equipment away from the northeastern corner of the site, requiring equipment staging areas to occur at a minimum distance of 1,105 feet away from the northeastern property boundary, and requiring adherence to City-approved construction haul routes), and the preparation of Construction Haul Route exhibits prior to grading or building permit issuance will reduce construction-related noise impacts to the greatest practical extent. Mitigation Measures MM 4.10-1 and MM 4.10-2, as set forth in the MMP, have been imposed as conditions of approval of the Project. Additional mitigation requiring temporary construction noise barriers was considered, but was determined to be infeasible because such barriers will interfere with construction activities, will fail to reduce to less than significant levels near-term construction-related noise impacts, and will elongate the duration of construction activities (thereby extending the time that other adverse construction-related effects would occur). Therefore, there are no feasible mitigation measures which will reduce construction-related noise levels to less than significant.

3. TRANSPORTATION/TRAFFIC

a. Significant Unavoidable Impact: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system (Threshold 1).

Finding: Implementation of the Project will result in significant direct impacts to the intersection of Heacock Street at Iris Avenue, the intersection of Heacock Street at Gentian Avenue, the roadway segment of Heacock Street from Gentian Avenue to Iris Avenue, and the segment of Cactus Avenue between Veterans Way and Frederick Street. The Project also will result in cumulative impacts at six roadway segments under Opening Year 2016 conditions, at 16 roadway segments and 13 intersections under Horizon Year 2016 conditions, and at one roadway segment under General Plan Buildout Conditions. Mitigation Measures MM 4.11-1 through MM 4.11-4, as set forth in the MMP, have been identified to reduce the Project's direct and cumulative impacts; however, direct impacts to the roadway segment of Cactus Avenue west of Frederick Street, and cumulative impacts to four intersections and one roadway segment, will remain significant and unavoidable even after the implementation of the required mitigation measures.

Factual Basis for the Finding: As discussed on Pages 4.11-12 through 4.11-24 of the Draft EIR, and in the Project's Traffic Impact Analysis (Draft EIR Appendix J), traffic generated by the Project will degrade the existing level of service ("LOS") at the intersection of Heacock Street and Iris Avenue from LOS C to LOS F, will degrade the existing LOS at the intersection of Heacock Street at Gentian Avenue from LOS C in the AM peak hour and LOS D in the PM peak hour to LOS F during both peak hours, will degrade the existing LOS along the roadway segment of Cactus Avenue between Veterans Way and Frederick Street from LOS D to LOS E, and will contribute to an existing LOS F on Heacock Street between Gentian Avenue and Iris Avenue. Impacts to the intersections of Heacock Street at Iris Avenue and Heacock Street at Gentian Avenue represent direct impacts of the Project because the Project will contribute more than 50 peak hour trips to these intersections and these intersections will operate at a deficient LOS. The roadway segment of Cactus Avenue between Veterans Way and Frederick Street will be directly impacted by the Project because Project-related traffic will degrade the existing LOS along this roadway segment to below the City of

Moreno Valley's significance threshold of LOS D. Impacts to the segment of Heacock Street between Gentian Avenue and Iris Avenue are considered a significant direct impact because this is the only segment of Cactus Avenue not improved to three (3) travel lanes in the westbound direction under existing conditions, and the westbound travel lanes are necessary to ensure an acceptable LOS.

In addition, the Project will contribute to a deficient LOS at six roadway segments under Opening Year 2016 conditions, at 16 roadway segments and 13 intersections under Horizon Year 2016 conditions, and at one roadway segment under General Plan Buildout Conditions; impacts to these facilities represent significant cumulative impacts of the Project.

Mitigation Measures MM 4.11-1 through MM 4.11-4, as set forth in the MMP, have been identified to reduce these significant direct and cumulative effects to the maximum practical extent by requiring the installation of a traffic signal at the intersection of Heacock Street/Gentian, construction of improvements at the intersection of Heacock Street and Iris Avenue (consisting of a traffic signal and the provision of two northbound through lanes and one northbound right turn lane), and the contribution of funds to future fair-share funding programs (if such programs are available at the time of building permit application). Mitigation Measures MM 4.11-1 through MM 4.11-4, as set forth in the MMP, have been imposed as conditions of approval of the Project.

Implementation of the required mitigation will reduce to less than significant the Project's direct impacts to the intersection of Heacock Street at Iris Avenue, the intersection of Heacock Street at Gentian Avenue, and the roadway segment of Heacock Street from Gentian Avenue to Iris Avenue. Although improvements to the roadway segment of Cactus Avenue west of Frederick Street already are planned as part of Plot Plan PA08-0072, and even though improvements to this roadway segment to provide for three westbound travel lanes will be in place prior to occupancy permits, the planned improvements were not in place at the time the Project's Notice of Preparation was distributed for public review; accordingly, impacts to the roadway

segment of Cactus Avenue west of Frederick Street in the Opening Year 2016 analysis scenario are considered significant and unavoidable even after the imposition of mitigation. Because the necessary improvement is already planned to occur and the impact will be negated once the planned improvement is constructed, there are no feasible mitigation measures to be imposed upon the Project which will reduce impacts to this roadway segment in the 2016 Opening Year scenario to less than significant.

Implementation of the required mitigation will reduce the Project's cumulative impacts to below a level of significance, with exception of impacts to four intersections and one roadway segment. Although Mitigation Measures MM 4.11-3 and MM 4.11-4 require the Project to participate in a funding program(s) to address the Project's fair share towards cumulative impacts to these intersections and roadway segment, there is no assurance that the City of Moreno Valley and/or the City of Perris will identify a funding program(s) for these intersections and roadway segment prior to the issuance of building permits, and even if the funding programs are established it cannot be assured that the required improvements will be constructed prior to the Project's occupancy under Opening Year 2016 or Horizon Year 2016 conditions. There is not a proportional nexus to the impact to require the Project to construct full improvements to the impacted intersections and roadway segment in the City of Moreno Valley. The City of Moreno Valley is not authorized to require roadway improvements in the City of Perris, nor would there be a proportional nexus to require the Project to construct the required improvement to the impacted intersection in the City of Perris. For these reasons, mitigation measures beyond contribution to a fee program, if established, are not feasible because there lacks proportionality to the impacts. There are no other feasible mitigation measures that will reduce cumulative impacts to four intersections and one roadway segment to less than significant.

b. Significant Unavoidable Impact: Conflict with an applicable congestion management program (Threshold 2).

Finding: Implementation of the Project will result in near-term cumulatively considerable contributions to impacts on four segments of Interstate 215 (I-215). There are no feasible mitigation measures that will reduce these impacts to less than significant.

Factual Basis for the Finding: Under Horizon Year (2016) conditions, and with the inclusion of background traffic volumes from cumulative development projects, the following freeway mainline segments will operate at LOS F, which is below the acceptable LOS E: I-215 southbound, south of Cactus Avenue; I-215 southbound, north of Harley Know Boulevard; I-215 southbound, south of Harley Knox Boulevard; and I-215 northbound, south of Cactus Avenue. Although the addition of Project traffic will not cause the deficiency in the projected LOS at these locations, Project traffic will cumulatively contribute to the unacceptable LOS; as such, Project traffic will contribute to a cumulatively significant impact at these locations. Caltrans currently has plans for the widening of these segments of I-215 to relieve the projected deficiencies; however, there is no schedule or funding in place for the planned improvements, and the City cannot be assured that the improvements will be in place prior to occupancy of the Project. Under long-term conditions, and with the completion of the planned improvements, impacts to these freeway segments will not occur. Mitigation is not feasible because there are no funding programs currently in place to which the Project can contribute funds for the improvements needed to relieve the projected deficiencies on I-215. The City of Moreno Valley is not authorized to require freeway improvements, nor would there be a proportional nexus to require the Project to construct improvements to I-215. Because a fee program for impacts to I-215 is not established by Caltrans and because physical improvements to I-215 would lack proportionality to the cumulative impact, there are no other feasible mitigation measures that will reduce cumulative impacts freeway mainlines.

V. PROJECT ALTERNATIVES

A. ALTERNATIVE SITES

Finding: There exists no feasible and available alternative site for the Project which would avoid or substantially lessen the significant impacts of the Project while allowing for the feasible attainment of most of the Project's basic objectives.

Factual Basis for the Finding: As discussed on pages 6-5 and 6-6 of the Draft EIR, the land uses included as part of the Project are consistent with the Business Park/Light Industrial and Commercial land use designations applied to the property by the City of Moreno Valley General Plan and as further detailed by the Industrial and Industrial Support Areas designations applied to the property by the Moreno Valley Industrial Area Plan. Thus, it can reasonably be assumed that development ultimately would occur in conformance with the applicable land use designations, whether by the Project applicant or by others in the future. Regardless, a review of available properties within the region identified eight properties that are identified for industrial development in the I-215 corridor within the City of Moreno Valley and nearby locations within the City of Riverside and the City of Perris. However, the Project applicant does not own or control any properties within the City of Moreno Valley or immediately surrounding area that are of similar size as the proposed Project Site, and there are no suitable vacant sites available for sale by the current property owners. Furthermore, the Project Site is fully disturbed, is not located within an area targeted for biological conservation, and is fully surrounded by developed lands or lands planned for development by the Moreno Valley General Plan. Few other properties in the City of Moreno Valley and western Riverside County would offer less developmental and environmental constraints, or fewer environmental impacts than the Project Site. Development of the Project in an alternative location would have similar impacts as would occur with implementation of the Project. Therefore, there are no reasonably feasible and available alternative sites that would meet the Project's basic objectives while avoiding or substantially lessening the significant unavoidable impacts of the Project.

B. NO PROJECT ALTERNATIVE

Finding: The No Project Alternative is environmentally superior to the Project but would not attain any of the objectives for the Project.

Factual Basis for the Finding: As discussed on pages 6-6 through 6-10 of the Draft EIR, leaving the Project Site in its current condition would avoid or lessen all of the Project's significant environmental effects. However, none of the Project's objectives would be met by this alternative.

C. VACANT LOT/BUSINESS CENTER ALTERNATIVE

Finding: Development of the site under this alternative would allow for the construction of approximately 762,800 square feet (s.f.) of building area (49% less building area than the Project), including 554,486 s.f. of high cube warehouse, 174,858 s.f. of warehouse, and 33,464 s.f. of light industrial land uses. No construction activities would occur within 1,100 feet of the property's northeastern corner, with exception of frontage improvements to Iris Avenue. This alternative would not result in increased impacts to any environmental issue area in comparison to the Project and would reduce the severity of the Project's environmental effects, but implementation of this alternative would not completely avoid the Project's significant and unavoidable effects to air quality, noise, or transportation/traffic. In addition, although this alternative would meet some of the Project's objectives, it would meet those objectives to a lesser degree than the proposed Project due to the 49% reduction in building space. Specifically, this alternative would attract a fewer number of jobs to the City of Moreno Valley, would not fully implement the Industrial land use designation applied to the property by the City's General Plan, would result in a business center that is less financially feasible to construct and operate, and would fail make efficient use of the property by providing a floor area ratio (FAR) of only 0.25 as compared to the objective to provide a 0.5 FAR or greater.

Factual Basis for the Finding: As discussed on pages 6-10 through 6-15 of the Draft EIR, implementation of the Vacant Lot/Business Center Alternative would reduce, but would not completely avoid, the Project's significant environmental effects. Moreover, this alternative would not result in a reduction in demand for industrial business park space in western Riverside County; thus, it is likely that the reduced level of environmental impact achieved through this alternative would be displaced to another property rather than avoided. The reduction of 28 acres worth of industrial development within Moreno Valley also would fail to generate as much tax revenue or as many jobs for the local community as compared to the

Project. Additionally, although this alternative would meet most of the Project's basic objectives, it would meet them to a lesser degree than the proposed Project due to the reduction in building area. Specifically, this alternative would attract a fewer number of jobs to the City of Moreno Valley, would not fully implement the Industrial land use designation applied to the property by the City's General Plan, would result in a business center that is less financially feasible to construct and operate, and would fail make efficient use of the property by providing a floor area ratio (FAR) of only 0.25 as compared to the objective to provide a 0.5 FAR or greater. The land use designations applied to the property by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan would not be realized on 28 acres of the property, and the Project applicant would be precluded from realizing a reasonable rate of return on the 28 acres. Furthermore, the permanent 28-acre vacant lot that would result from implementation of this alternative represents an inefficient use of land that is not justified by the need to avoid near-term impacts associated with noise. The permanent establishment of a vacant lot on 28 acres of the site also would conflict with the General Plan's Ultimate Goal No. I, which promotes "…an orderly and balanced land use pattern that accommodates a range of residential, cultural, recreational, business and employment opportunities," and Community Development Element Goal No. 2.1, which promotes, "A pattern of land uses, which organizes future growth…and which promotes the rational utilization of presently underdeveloped and undeveloped parcels."

D. SMALL BUILDING ALTERNATIVE

Finding: Developing the Project Site with 1,316,404 s.f. of building space, including 30 to 40 light industrial buildings ranging in size from 10,000 s.f. to 50,000 s.f. on Parcel 1, would increase the duration of the Project's near-term significant unavoidable noise impact affecting nearby sensitive receptors, would create additional impacts and more severe impacts associated with air quality, greenhouse gas emissions, noise, and traffic due to the generation of a 120% increase in vehicle trips, and would not reduce or avoid any of the Project's other significant environmental effects. This alternative also would fail to meet the Project's objective to achieve a 0.5 floor area ratio (FAR) or higher, would be less effective in meeting the Project's objective to accommodate warehouse distribution land uses on site, and would be less effective than the proposed Project in creating new jobs.

Factual Basis for the Finding: As discussed on pages 6-15 through 6-19 of the Draft EIR, the environmental impacts of the small building alternative would be the same or increased in comparison to the Project. This alternative would result in an increase in the Project's significant and unavoidable environmental impacts due to near-term construction noise (due to an increase in duration of construction activities affecting nearby sensitive receptors), near- and long-term air quality (due to the increased duration of construction activities and the 120% increase in ADT associated with this alternative), and transportation/traffic (due to increased ADT), and also would result in increased, but less than significant, impacts to greenhouse gas emissions. Also, the small building alternative would prevent achieving some of the Project's basic objectives. In particular, this alternative would not achieve a 0.5 FAR, as it would result in an FAR of only 0.45. This alternative also would be less effective in meeting the Project's objective to accommodate warehouse distribution land uses on-site, and would be less effective than the Project in creating jobs.

VI. STATEMENT OF OVERRIDING CONSIDERATIONS

As set forth in Section IV. above, most of the Project's impacts on the environment will either be insignificant or, through the imposition of mitigation measures as conditions of approval of the Project, can be reduced to less than significant. However, as set forth in subsection IV.B. above, impacts to air quality, noise, and transportation/traffic will remain significant and unavoidable even after the imposition of all feasible mitigation measures. Further, as set forth in Section V. above, there are no feasible alternatives to the Project which would mitigate or avoid those environmental impacts while still attaining all of the Project's basic objectives. Nevertheless, as set forth below, the Council has determined that the benefits which will accrue from the development of the Project outweigh the significant and unavoidable impacts which the Project will produce.

A. AIR QUALITY

Finding: Notwithstanding the significant unavoidable impacts to air quality discussed in subsection IV.B.1, above, implementation of the City of Moreno Valley General Plan and Specific Plan No. 208, the development of otherwise unusable vacant land, the creation of jobs and a multiplier effect that will create secondary jobs to support the Project and those who work in it, which will further the City's efforts to achieve a community with a healthy and diversified economic base and provides ample employment opportunities for the citizens of Moreno Valley, and the fact that the Project will be Leadership in Energy and Environmental Design ("LEED") certified, which will

demonstrate the City's commitment to green technology, constitutes benefits which outweigh the unavoidable adverse environmental impacts to air quality. Each of the benefits, individually, constitutes a sufficient basis for approving the Project notwithstanding the significant and unavoidable impact on air quality that will result.

Factual Basis for the Finding: As set forth in the Project Objectives on pages 3-1 and 3-2 of the Draft EIR and in the description of the Project provided on pages 3-2 through 3-20 of the Draft EIR, approval of the Project will allow the conversion of a vacant site into a job and revenue producing facility. Applying average employment density factors reported by the Southern California Association of Governments in their publication *"Employment Density Study Report,"* (SCAG 2001), implementation of the Project is anticipated to result in the creation of up to 2,560 new, recurring jobs, which also will improve the regional jobs-housing balance, thereby reducing the need for Western Riverside County residents to commute longer distances to work. It will allow for the implementation of Light Industrial land uses in conformance with the City of Moreno Valley General Plan and Moreno Valley Industrial Area Plan, and will assist the City in achieving numerous General Plan Goals, including, but not limited to, Ultimate Goal No. IV. (to achieve a community which "Enjoys a healthy economic climate that benefits both residents and businesses"), and Community Development Objective 2.5 ("Promote a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors, and which meets the service needs of local businesses.").

B. NOISE

Finding: Notwithstanding the significant unavoidable impacts to noise discussed in subsection IV.B.1, above, implementation of the City of Moreno Valley General Plan and Specific Plan No. 208, the development of otherwise unusable vacant land, the creation of jobs and a multiplier effect that will create secondary jobs to support the Project and those who work in it, the demonstration that which will further the City's efforts to achieve a community with a healthy and diversified economic base and provides ample employment opportunities for the citizens of Moreno Valley, and the fact that

the Project will be LEED certified, which will demonstrate the City's commitment to green technology, constitutes benefits which outweigh the unavoidable adverse environmental impacts to noise. Each of the benefits, individually, constitutes a sufficient basis for approving the Project notwithstanding the significant and unavoidable noise impact that will result.

Factual Basis for the Finding: As set forth in the Project Objectives on pages 3-1 and 3-2 of the Draft EIR and in the description of the Project provided on pages 3-2 through 3-20 of the Draft EIR, approval of the Project will allow the conversion of a vacant site into a job and revenue producing facility. Applying average employment density factors reported by the Southern California Association of Governments in their publication "Employment Density Study Report," (SCAG 2001), implementation of the Project is anticipated to result in the creation of up to 2,560 new, recurring jobs, which also will improve the regional jobs-housing balance, thereby reducing the need for Western Riverside County residents to commute longer distances to work. It will allow for the implementation of Light Industrial land uses in conformance with the City of Moreno Valley General Plan and Moreno Valley Industrial Area Plan, and will assist the City in achieving numerous General Plan Goals, including, but not limited to, Ultimate Goal No. IV. (to achieve a community which "Enjoys a healthy economic climate that benefits both residents and businesses"), and Community Development Objective 2.5 ("Promote a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors, and which meets the service needs of local businesses.").

C. TRANSPORTATION/TRAFFIC

Finding: Notwithstanding the significant unavoidable impacts to transportation/traffic discussed in subsection IV.B.1, above, implementation of the City of Moreno Valley General Plan and Specific Plan No. 208, the development of otherwise unusable vacant land, the creation of jobs and a multiplier effect that will create secondary jobs to support the Project and those who work in it, the demonstration that which will further the City's efforts to achieve a community with a healthy and diversified economic base and provides ample employment opportunities for the citizens of Moreno Valley, and the fact that

the Project will be LEED certified, which will demonstrate the City's commitment to green technology, constitutes benefits which outweigh the unavoidable adverse environmental impacts to transportation/traffic. Each of the benefits, individually, constitutes a sufficient basis for approving the Project notwithstanding the significant and unavoidable impact on transportation/traffic that will result.

Factual Basis for the Finding: As set forth in the Project Objectives on pages 3-1 and 3-2 of the Draft EIR and in the description of the Project provided on pages 3-2 through 3-20 of the Draft EIR, approval of the Project will allow the conversion of a vacant site into a job and revenue producing facility. Applying average employment density factors reported by the Southern California Association of Governments in their publication "Employment Density Study Report," (SCAG 2001), implementation of the Project is anticipated to result in the creation of up to 2,560 new, recurring jobs, which also will improve the regional jobs-housing balance, thereby reducing the need for Western Riverside County residents to commute longer distances to work. It will allow for the implementation of Light Industrial land uses in conformance with the City of Moreno Valley General Plan and Moreno Valley Industrial Area Plan, and will assist the City in achieving numerous General Plan Goals, including, but not limited to, Ultimate Goal No. IV. (to achieve a community which "Enjoys a healthy economic climate that benefits both residents and businesses"), and Community Development Objective 2.5 ("Promote a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors, and which meets the service needs of local businesses.").

The Moreno Valley City Council hereby declares that, pursuant to CEQA Guidelines Section 15093, the City Council has balanced the benefits of the proposed Project against any significant and unavoidable environmental impacts in determining whether to approve the proposed Project. If the benefits of the proposed Project outweigh the unavoidable adverse environmental impacts, those impacts are considered "acceptable."

The City Council hereby declares that the EIR has identified and discussed significant effects that may occur as a result of the Project. With the adoption and implementation of the mitigation measures discussed in the EIR, these impacts can be mitigated to a level

of less than significant except for the unavoidable and significant impacts discussed in subsection IV.B herein.

The City Council hereby declares that it has made a reasonable and good faith effort to eliminate or substantially mitigate the potential impacts resulting from the Project.

The City Council hereby declares that to the extent any mitigation measures recommended to the City are not incorporated, such mitigation measures are infeasible because they would impose restrictions on the Project that would prohibit the realization of specific economic, social, and other benefits that this City Council finds outweigh the unmitigated impacts.

The City Council further finds that except for the Project, all other alternatives set forth in the EIR are infeasible because they would prohibit the realization of the Project objectives and/or specific economic, social or other benefits that this City Council finds outweigh any environmental benefits of the alternatives or the other alternatives do not substantively reduce the severity of unavoidable and significant impacts.

The City Council hereby declares that, having reduced the adverse significant environmental effects of the Project, to the extent feasible by adopting the proposed mitigation measures, having considered the entire administrative record on the Project and having weighed the benefits of the Project against its unavoidable significant impact after mitigation, the City Council has determined that the social, economic and environmental benefits of the Project outweigh the potential unavoidable significant impacts and render those potential significant impacts acceptable based on the following considerations:

1. The Project will provide development consistent with the General Plan and in conformance with Specific Plan No. 208, municipal standards, codes and policies;

2. The Project provides development that improves and maximizes economic viability of a vacant site by transitioning the Project site into a productive use;

3. The Project creates additional employment-generating opportunities for the City of Moreno Valley and surrounding communities; and

4. The Project provides adequate infrastructure and public amenities, including upgrading and widened streets, traffic signal upgrades and utility improvements.

As the CEQA Lead Agency for the proposed action, the City of Moreno Valley has reviewed the Project description and the alternatives presented in the EIR, and fully understands the Project and Project alternatives proposed for development. Further, the City Council finds that all potential adverse environmental impacts and all feasible mitigation measures to reduce the impacts from the Project have been identified in the Draft EIR, the Final EIR, and public testimony. The Council also finds that a reasonable

range of alternatives was considered in the EIR and this document, and finds that approval of the Project is appropriate.

This City Council has identified economic and social benefits and important policy objectives which result from implementing the Project. The Council has balanced these substantial social and economic benefits against the unavoidable significant adverse effects of the Project. Given the substantial social and economic benefits that will accrue from the Project, this Council finds that the benefits identified herein override the unavoidable environmental effects.

The City Council hereby declares that the benefits provided to the public through approval and implementation of the Project outweighs the identified significant adverse environmental impacts of the Project that cannot be mitigated. The City Council finds that each of the Project benefits outweighs the unavoidable adverse environmental impacts identified in the EIR and, therefore, finds those impacts to be acceptable.

VII. CERTIFICATION OF THE FINAL ENVIRONMENTAL IMPACT REPORT

The Moreno Valley City Council finds that it has reviewed and considered the Final EIR in evaluating the Project, that the Final EIR is an accurate and objective statement that fully complies with CEQA and the CEQA Guidelines, and that the Final EIR reflects the independent judgment of the City Council.

The City Council declares that no new significant information as defined by CEQA Guidelines Section 15088.5 has been received by the City Council after the circulation of the Draft EIR that would require recirculation. All of the information added to the Final EIR merely clarifies, amplifies or makes insignificant modifications to an already adequate Draft EIR pursuant to CEQA Guidelines Section 15088.5(b).

The City Council hereby certifies the EIR based on the following findings and conclusions:

A. FINDINGS

1. WESTERN RIVERSIDE COUNTY MULTIPLE SPECIES HABITAT CONSERVATION PLAN COMPLIANCE

The Project is in conformance with the conservation requirements of the Western Riverside County Multiple Species Conservation Plan (MSHCP) in that:

1. The Project site is located within the MSHCP Criteria Area, but is not located within any Cell Groups; therefore, a Habitat Acquisition and Negotiation Strategy (HANS) application is not required to be submitted to the Riverside Conservation Authority (RCA).

2. Pursuant to Section 6.1.2 of the MSHCP, an assessment of potentially significant effects on Riparian/Riverine Areas and Vernal Pools is required if such resources are identified on the Project site or will impacted by the Project. The Project will impact 0.06 off-site acre of the Perris Valley Storm Drain Channel (PVSD) to construct two drainage outlets. The PVSD is considered a MSHCP riverine feature, though the portion that will be directly impacted by the Project does not support any riparian habitat. The EIR discloses that there will be no adverse hydrologic effects to downstream biological features as a result of the Project. As such, the Project will not impact biological functions and values as it pertains to riparian habitat and a Determination of Biologically Equivalent or Superior Preservation (DBESP) is not required

3. Pursuant to Section 6.1.3 of the MSHCP, habitat assessments and/or focused surveys for certain Narrow Endemic plant species are required for properties within mapped survey areas. The Project site is not located in a mapped survey area.

4. Pursuant to Section 6.1.4 of the MSHCP, projects in close proximity to the MSHCP Conservation Area are required to incorporate mechanisms to address indirect effects to the MSHCP Conservation Area. The Project site is not located in close proximity to the MSHCP Criteria Area or any MSHCP Preserve.

5. Pursuant to Section 6.3.2 of the MSHCP, habitat assessments and/or focused surveys for certain additional plant and animal species are required for properties within mapped survey areas. The Project site is partially located in a survey area for western burrowing owl and required surveys were conducted. Pre-construction surveys of the Project site and avoidance of clearing and grading activities during the nesting season are required. If the site is occupied, Mitigation Measures 4.3-1 through 4.3-3, as set forth in the MMP attached as Exhibit A, have been imposed as conditions of approval of the Project in accordance with the MSHCP.

2. CEQA COMPLIANCE

As the decision-making body for the Project, the City Council has reviewed and considered the information contained in the Findings and supporting documentation. The City Council determines that the Findings contain a complete and accurate reporting of the environmental impacts and mitigation measures associated with the Project, as well as complete and accurate reporting of the unavoidable impacts and benefits of the Proposed Project as detailed in the Statement of Overriding Considerations. The City Council finds that the EIR was prepared in compliance with CEQA and that the City Council complied with CEQA's procedural and substantive requirements.

3. SIGNIFICANT UNAVOIDABLE IMPACTS/STATEMENT OF OVERRIDING CONSIDERATIONS

The Project will have significant adverse impacts even following adoption of all feasible mitigation measures which are required by the City Council. The following significant environmental impacts have been identified in the Final EIR and will require mitigation but cannot be mitigated to a level of insignificance as set forth in subsection IV.B of these Findings: Air Quality - Violation of air quality standard, contribution to air quality violation, or cumulatively considerable net increase of a criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (Thresholds 2 and 3); Noise - Short-term generation of noise levels in excess of local standards and/or a substantial permanent or periodic increase in ambient noise levels (Thresholds 2 and 3); Transportation/Traffic - Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system (Threshold 1); and Transportation/Traffic - Conflict with an applicable congestion management program (Threshold 2).

The City Council has eliminated or substantially reduced environmental impacts where feasible and the City Council determines that the remaining unavoidable significant adverse impacts are acceptable due to the reasons set forth in the preceding Statement of Overriding Considerations.

4. CONCLUSIONS

a. All potentially significant environmental impacts from implementation of the proposed Project have been identified in the EIR and, with the implementation of the mitigation measures defined herein and set forth in the MMP, will be mitigated to a less-than-significant level, except for the impacts identified in subsection IV.B herein.

b. Other reasonable alternatives to the proposed Project that could feasibly achieve the basic objectives of the proposed Project have been considered and rejected in favor of the proposed Project.

c. Environmental, economic, social and other considerations and benefits derived from the development of the proposed Project override and make infeasible any alternatives to the proposed Project or further mitigation measures beyond those incorporated into the proposed Project.

Mitigation Monitoring Program
March Business Center Project

State Clearinghouse No. 2011061033

Prepared for:

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Community Development Department
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Prepared by:

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Date: November 19, 2012

EXHIBIT B

INTRODUCTION

CEQA Requirements

The California Environmental Quality Act (CEQA) requires that when a public agency completes an environmental document that includes measures to mitigate or avoid significant environmental effects, the public agency must adopt a Mitigation Monitoring Program (MMP) for the changes to the project that it has adopted or made a condition of project approval in order to mitigate or avoid significant environmental impacts. The appropriate reporting or monitoring plan must be designed to ensure compliance during project implementation (Public Resources Code §21081.6).

The Planning Division would coordinate the project monitoring of the mitigation measures with each applicable department or division, while various City departments/divisions would be responsible for monitoring and verifying compliance of specific mitigation measures (see the Mitigation Monitoring and Reporting Summary Table beginning on page 6). The City of Moreno Valley Public Works Department (City) would coordinate monitoring of the implementation of all mitigation measures for the project. Monitoring will include: 1) verification that each mitigation measure has been implemented; 2) recordation of the actions taken to implement each mitigation measure; and 3) retention of records in the project file.

Program Objectives

The objectives of the MMP for the proposed March Business Center Project (the "Project") include the following:

- To provide assurance and documentation that mitigation measures are implemented as planned;
- To collect analytical data to assist City administration in its determination of the effectiveness of the adopted mitigation measures;
- To report periodically regarding project compliance with mitigation measures, performance standards and/or other conditions; and
- To make available to the public, upon request, the City record of compliance with project mitigation measures.

Overview of the Project

The Project consists of a proposal to develop a 75.05-acre property with business center land uses. The principal discretionary actions required of the City of Moreno Valley to implement the proposed Project include the adoption of a General Plan Amendment (PA11-0001) and Specific Plan Amendment (P11-004), approval of Tentative Parcel Map No. 35879 (PA11-0007), a Master Plot Plan (PA11-0002) and four (4) individual Building Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006), and certification of this EIR (P11-005).

Tentative Parcel Map No. 35879 (TPM No. 35879) proposes to subdivide the 75.05-acre property into four (4) parcels, designates areas of public road dedication, and identifies the size

and location of needed water, sewer, drainage, and utility infrastructure. Developable parcels would range in size from 1.89 gross acres (1.54 net acres) to 53.43 gross acres (47.67 net acres).

The proposed realignment and reclassification of Krameria Avenue through the Project site would require an amendment to the Moreno Valley Industrial Area Plan (Specific Plan 208). The proposed Specific Plan Amendment (P11-004) would change the planned alignment of the on-site segment of Krameria Avenue and would change the classification of the segment of Krameria Avenue between Indian Avenue and Heacock Street from a "Minor Arterial (88-foot right-of-way)" to an "Industrial Collector (78-foot right-of-way)," as would similarly occur under the proposed General Plan Amendment.

The Master Plot Plan (PA11-0002) establishes a common architectural and landscape development concept for the entire Project, depicts the location of proposed circulation facilities, and depicts the relationship between proposed on-site structures. The individual Building Plot Plans provide site plans, including a detailed architectural and landscape design for Parcel 1 (PA11-0003), Parcel 2 (PA11-0004), Parcel 3 (PA11-0005), and Parcel 4 (PA11-0006). The Project Applicant anticipates that Parcels 1, 2, and 3 would primarily be occupied by warehouse distribution uses, while Parcel 4 would be occupied by light industrial uses. The net parcel size, total building area, and floor area ratio (FAR) of each proposed parcel and building are summarized in the following March Business Center Statistical Summary table.

March Business Center Statistical Summary

PARCEL	NET PARCEL SIZE	TOTAL BUILDING AREA	FAR[1]
1	2,077,688 s.f.	1,103,003 s.f.	0.53
2	512,072 s.f.	277,243 s.f.	0.54
3	258,479 s.f.	87,429 s.f.	0.34
4	67,144 s.f.	16,732 s.f.	0.25
Total	**2,915,383 s.f.**	**1,484,407 s.f.**	**0.51**

[1] Floor Area Ratio (FAR) is calculated by dividing the maximum building square footage by the net square footage of the parcel on which the building is located. Total FAR is calculated by dividing the total square footage of all buildings by the total net square footage of the parcels on which they would be located.
Source: PA11-0002, PA11-0003, PA11-0004, PA-0005, and PA11-0006 prepared by Bastien and Associates, Inc., August 17, 2011.

Organization of the Mitigation Monitoring Program

The following describes the sections of this MMP:

- **Introduction** - Provides an overview of CEQA's monitoring and reporting requirements, program objectives, the project for which the program has been prepared, and the manner in which the mitigation monitoring program has been organized.

- **MMP** - Describes the City entities responsible for implementation of the mitigation monitoring plan, the plan scope, procedures for monitoring and reporting, public availability of documents, the process for making changes to the program, types of

mitigation measures, and the manner in which monitoring will be coordinated to ensure implementation of mitigation measures.

- **Mitigation Monitoring and Reporting Summary** - Outlines the impacts and mitigation measures, responsible entities, and the timing for monitoring and reporting for each mitigation measure included in this MMP.

DESCRIPTION OF PLAN

Mitigation Monitoring Procedures

This MMP delegates responsibilities for monitoring the project, and allows responsible City entities flexibility and discretion in determining how best to monitor implementation. Monitoring procedures will vary according to the type of mitigation measure. The timing for monitoring and reporting is described in the monitoring and reporting summary table, below. Adequate monitoring requires demonstration of monitoring procedures and implementation of mitigation measures.

In order to enhance the effectiveness of the monitoring program, the City will utilize existing systems where appropriate. For instance, with any major construction project, the administration generally has at least one inspector assigned to monitor project construction. These inspectors are familiar with a broad range of regulatory issues and will provide first line oversight for much of the monitoring program.

Responsibilities of the City include identification of typical mitigation measure-related issues such as noisy equipment, dust, safety problems, etc. Any problems are generally corrected through directions to the contractors or through other appropriate, established mechanisms. Internal reporting procedures are already in place to document any problems and to address broader implementation issues.

Reporting Procedures

The City would be responsible for monitoring and implementing the mitigation measures included in this monitoring plan. Reporting establishes a record that a mitigation measure is being implemented and generally involves the following steps:

- The City distributes reporting forms to the appropriate City Department (as indicated on the Mitigation Monitoring and Reporting forms) or employs the office's existing reporting process for verification of compliance.

- Responsible entities verify compliance by signing the monitoring and reporting form and/or documenting compliance using their own internal procedures when monitoring is triggered.

- Responsible entities provide the City with verification that monitoring has been conducted and ensure, as applicable, that mitigation measures have been implemented.

The reporting forms prepared by the City would document the implementation status of mitigation measures of the project. Progress reports describe the monitoring status of all project mitigation measures. The City will keep records of Project reporting forms and periodic status reports.

The City would also be responsible for assisting their contractor with reporting responsibilities to ensure that they understand their charge and complete their reporting procedures accurately and on schedule.

Public Availability

All monitoring reporting forms, summaries, data sheets, and correction instructions related to the Mitigation Monitoring Program for March Business Center would be available for public review upon request at the City of Moreno Valley Department of Public Works offices during normal business hours.

Program Changes

If minor changes are required to the MMP, they would be made in accordance with CEQA and would be permitted after further review by the City. Such changes could include reassignment of monitoring and reporting responsibilities and/or redesign to make any appropriate improvements. No change would be permitted unless the Mitigation Monitoring Program continues to satisfy the requirements of Public Resources Code §21081.6.

Types of Mitigation Measures Being Monitored

The Final Environmental Impact Report for the March Business Center Project is a "project specific" and "cumulative" evaluation as defined in the CEQA Guidelines.

The Final Environmental Impact Report recommends 39 project specific and cumulative mitigation measures to reduce impacts related to air quality, biological resources, cultural resources, greenhouse gas emissions, hazards and hazardous materials, noise, and transportation/traffic. Compliance with these mitigation measures will be accomplished through administrative controls over project planning and implementation. Monitoring would be accomplished as described previously under "Reporting Procedures" through verification and certification by personnel.

In general, implementation of the MMP will require the following actions:

- Appropriate mitigation measures would be included in construction documents.
- Departments with reporting responsibilities would review the Final Environmental Impact Report, which provides general background information on the reasons for including specified mitigation measures.
- Problems with or exceptions to compliance would be addressed by the City as appropriate.
- Periodic meetings may be held during project implementation to report on compliance with mitigation measures.

Mitigation Monitoring and Reporting Summary

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
Air Quality							
MM 4.2-1 Prior to grading permit issuance, the City shall verify that the following notes are included on the grading plan: "The contractor shall utilize California Air Resources Board (CARB) Tier III certified equipment or better for all off-road diesel-powered construction equipment greater than 50 horsepower." "Any emissions controls device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations, with the exception that afterburners are not required." "During construction activity, truck idling shall be limited to five minutes or less." "The contractor shall implement temporary traffic control during construction pursuant to the requirements of the California Manual on Uniform Traffic Control Devices." "The contractor shall assure that mass grading shall be limited to no more than 6.5 acres per day. The contractor shall maintain a log of daily mass grading activities, which shall be provided to the City upon request."	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the issuance of grading permit(s)				
MM 4.2-2 Prior to issuance of each grading and building permit, the Project applicant or construction contractor shall prepare an exhibit for review by the City depicting the location of proposed equipment staging areas. The City shall review the proposed location(s) to ensure the staging areas are located at least 300-feet away from sensitive receptors and 1,105 feet from the northeastern corner of the Project site's property boundary as measured from the Iris Avenue right-of-way, as required by Mitigation Measure MM 4.10-1.	Project Applicant/ Developer	City of Moreno Valley Planning Division and Land Development Division	Prior to the issuance of grading permit(s) and building permits				
MM 4.2-3 The Project applicant shall use "Zero-Volatile Organic Compounds" paints (no more than 150 grams of VOC per liter) and/or High Pressure Low	Project Applicant/ Developer	SCAQMD, City of Moreno Valley Planning Division and	Prior to issuance of building permit(s). During construction				

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
Volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113. Alternatively, the applicant shall use building materials that do not require painting or are pre-painted. Painting products and materials compliant with these requirements shall be noted on building plans.		Building Division	activities and ongoing during long-term operation				
MM 4.2-4 Prior to the issuance of each building permit, the City shall ensure that building plans require the placement of signs at truck access gates, loading docks, and truck parking areas to identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes; and 3) telephone numbers of the building facilities manager and the CARB to report violations.	Project Applicant/ Developer	City of Moreno Valley Land Development Division and Building and Safety Division	Prior to the issuance of building permits				
MM 4.2-5 Prior to the issuance of each building permit, the City shall review the parking lot striping and security gating plan to ensure the site design allows adequate truck stacking at gates to prevent queuing of trucks outside the facility.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division and Planning Division	Prior to the issuance of building permits				
MM 4.2-6 Prior to the issuance of occupancy permits, the applicant shall provide evidence that a sign has been installed at each exit driveway, providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the issuance of occupancy permits				
MM 4.2-7 Prior to the issuance of occupancy permits, the Project's property owner shall provide documentation to the Planning Division verifying that a provision is included in the building's lease agreement that informs tenants using a vehicle fleet older than 2007 about the availability of grant funding from available funding sources for truck retrofit and replacement.	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of occupancy permits				
MM 4.2-8 Prior to the issuance of occupancy permits, the Project's property owner shall provide documentation to the Planning Division verifying that a provision is included in the building's lease agreement that informs tenants about the availability of alternatively fueled cargo handling equipment. Compliance with SCAQMD Rule 403, "Fugitive Dust," is a mandatory requirement listed above as Project Requirement PR 4.2-2. The SCAQMD made specific recommendations regarding this Project	Project Applicant/ Developer	City of Moreno Valley Planning Division, SCAQMD	Prior to the issuance of occupancy permits				

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
related to SCAQMD Rule 403 compliance, which are listed below in Mitigation Measures MM 4.2-9 and MM 4.2-10.							
MM 4.2-9 Prior to grading permit issuance, the City shall verify that the following notes are listed on the grading plan: "Apply non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for ten days or more)." "All trucks hauling dirt, sand, soil, or other loose materials shall be covered." "Streets shall be swept at the end of each day if visible soil is carried onto adjacent paved public roads. Refer to SCAQMD Rule 1186.1, 'Less-Polluting Street Sweepers.' " "The construction contractor shall monitor wind speed by use of an anemometer. The contractor shall suspend all excavating and grading operations when instantaneous wind speeds exceed 25 miles per hour."	Project Applicant/ Developer, Project Construction Manager	City of Moreno Valley Land Development Division	Prior to grading permit issuance				
MM 4.2-10 Prior to the start of grading, the construction contractor shall post a sign at the property's frontage with Heacock Street and at the property's frontage with Iris Avenue stating the name and phone number of an individual to be contacted to resolve dust complaints. These signs shall remain posted on the property until grading is complete.	Project Construction Manager	City of Moreno Valley Land Development Division	Prior to the start of grading permit(s)				
Biological Resources							
MM 4.3-1 Within 30 days prior to grading, a qualified biologist shall conduct a survey of the property and make a determination regarding the presence or absence of the burrowing owl. The determination shall be documented in a report and shall be submitted, reviewed, and accepted by the Planning Division of the Community & Economic Development Department prior to the issuance of a grading permit and subject to the following provisions: a) In the event that the pre-construction survey identifies no burrowing owls on the property, a grading	Project Biologist	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s) and within 30 days prior to grading				

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
permit may be issued without restriction. b) In the event that the pre-construction survey identifies the presence of three (3) or more mating pairs of burrowing owl, the grading permit shall not be issued and the requirements of MSCHP Species-Specific Conservation Objective 6 for the burrowing owl shall be followed. MSHCP Species-Specific Conservation Objective 6 for the burrowing owl prohibits the take of active nests and allows passive relocation to be conducted by a qualified biologist outside of the breeding season. Passive relocation shall include the required use of one-way doors to exclude owls from the site and the collapsing of burrows). Passive relocation shall follow CDFG relocation protocol and shall only occur between September 15 and February 1. c) In the event that the pre-construction survey identifies the presence of at least one individual but less than three (3) mating pairs of burrowing owl, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities on the property, the qualified biologist shall passively relocate any burrowing owls, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows. Passive relocation shall follow CDFG relocation protocol and shall only occur between September 15 and February 1.							
MM 4.3-2 Prior to the issuance of any grading permits, the Planning Division shall review grading plans to ensure that the following note is included on the plans: "No more than 30 days prior to commencement of ground-disturbing activities on site, a qualified biologist shall conduct pre-construction presence/absence surveys in accordance with the MSHCP Burrowing Owl Survey Instructions requirements and as required by MSHCP Objective 6 for the burrowing owl. If owls are determined to be present, grading shall not commence between February 1 and September 15. Between September 15 and February 1, grading may commence only after the qualified biologist has passively relocated the owls following CDFG protocol."	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)				

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
MM 4.3-3 As a condition of approval for all grading permits, vegetation clearing and ground disturbance shall be prohibited during the migratory bird nesting season (February 1 through September 15), unless a migratory bird nesting survey is completed in accordance with the following requirements: a) A nesting bird survey shall be conducted by a qualified biologist within three (3) days prior to initiating vegetation clearing or ground disturbance. b) A copy of the nesting bird survey results report shall be provided to the City of Moreno Valley. If the results of the nesting bird survey identify the presence of active nests on the property, then the qualified biologist shall provide the City of Moreno Valley Planning Division with a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impact. The size and location of all buffer zones, if required, shall be subject to review and approval by the Planning Division and shall be no less than a 300-foot radius around the nest for migratory birds and a 500-foot radius around the nest for raptors. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist and City Planning Division verify that the nests are no longer occupied and the juvenile birds can survive independently from the nests.	Project Biologist	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)				
MM 4.3-4 Prior to the issuance of grading permits, and in accordance with the California Fish and Game (CDFG) Code, the Project shall obtain a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Game (CDFG) for impact to 0.06-acre of CDFG jurisdictional area in the Perris Valley Storm Drain Channel. As part of the Agreement, the Project Applicant may acquire credits for the impact at a minimum 1:1 ratio from an approved in-lieu fee program or mitigation land bank.	Project Applicant/ Developer, CDFG	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)				
MM 4.3-5 Prior to the issuance of grading permits, and in accordance with the Clean Water Act, the Project shall obtain a Section 404 Permit from the U.S. Army Corps of Engineers (Corps) and a Section 401	Project Applicant/ Developer, Corps, RWQCB	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)				

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
Permit from the Regional Water Quality Control Board (RWQCB) for impact to 0.05-acre of Corps and RWQCB jurisdictional area in the Perris Valley Storm Drain Channel. As part of the Permits, the Project Applicant may acquire credits for the impact at a minimum 1:1 ratio from an approved in-lieu fee program or mitigation land bank							
Cultural Resources							
MM 4.4-1 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a qualified professional archaeological monitor has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities and has the authority to halt and redirect earthmoving activities in the event that suspected archeological resources are unearthed during Project construction.	Project Applicant/ Developer, Project Construction Manager, Project Archaeologist	City of Moreno Valley Land Development Division and Planning Division	Prior to the issuance of a grading permit				
MM 4.4-2 Prior to the issuance of a grading permit, the Applicant shall provide evidence to the City of Moreno Valley that appropriate Native American representative(s) [shall be allowed to monitor and have received a minimum of 30 days advance notice of all mass grading and trenching activities. Prior to grading permit issuance, appropriate local Native American representative(s) shall be notified in writing by the applicant of the pending grading activities. During grading and trenching operations, a professional archaeological monitor shall observe all mass grading and trenching activities. If the monitor suspects that an archaeological resource may have been unearthed, the monitor shall immediately halt and redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. If the monitor determines that the suspected resource is potentially significant, the archaeologist shall notify the appropriate Native American Tribe(s)and invite a tribal representative to consult on the resource evaluation. In consultation with the appropriate Native American Tribe(s), the archaeological monitor shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. If the resource is significant, Mitigation Measure MM 4.4-3	Project Applicant/Project Archeologist	City of Moreno Valley Land Development Division and Planning Division	Prior to the issuance of a grading permit and during grading and trenching operations				

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
shall apply.							
MM 4.4-3 If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be suspended 100 feet around the resource(s). The archaeological monitor and a representative of the appropriate Native American Tribe(s), the Project Applicant, and the City Planning Division shall confer regarding mitigation of the discovered resource(s). A treatment plan shall be prepared and implemented by the archaeologist to protect the identified archaeological resource(s) from damage and destruction. The landowner shall relinquish ownership of all archaeological artifacts that are of Native American origin found on the Project site to the culturally affiliated Native American tribe for proper treatment and disposition. A final report containing the significance and treatment findings shall be prepared by the archaeologist and submitted to the City Planning Division, the appropriate Native American tribe(s), and the Eastern Information Center.	Project Archeologist	City of Moreno Valley Planning Division	During grading and trenching operations				
MM 4.4-4 Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan: "If any suspected archaeological resources are discovered during ground-disturbing activities, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call a qualified archaeologist to the site to assess the significance of the find.	Project Applicant/ Developer, Project Construction Manager, Project Archaeologist	City of Moreno Valley Land Development Division and Planning Division	Prior to issuance of a grading permit				
MM 4.4-5 Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan: "If any suspected paleontological resources are discovered during ground-disturbing activities, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call a qualified paleontologist to the site to assess the significance of the find. A qualified paleontologist shall evaluate the suspected resource. If the paleontologist determines that the find is not unique, construction shall be permitted to proceed. However, if the paleontologist determines that further information is needed to evaluate	Project Applicant/ Developer, Project Construction Manager, Project Paleontologist	City of Moreno Valley Land Development Division and Planning Division	Prior to issuance of a grading permit				

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
significance, the City of Moreno Valley shall be notified and a treatment plan shall be prepared and implemented in consultation with the City to protect the identified paleontological resource(s) from damage and destruction."							
MM 4.4-6 If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made by the Coroner. If the Riverside County Coroner determines the remains to be Native American, the California Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then immediately notify the "most likely descendants" of receiving notification of the discovery. The most likely descendants shall then make recommendations within 48 hours, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code §5097.98.	Project Construction Manager; Riverside County Coroner	City of Moreno Valley Land Development Division and Planning Division	Ongoing during grading, earthwork, and trenching activities				
Greenhouse Gas Emissions							
MM 4.6-1 The Project's construction drawings shall be designed to achieve certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program. Prior to issuance of a building permit, the applicant shall provide a letter from a qualified LEED consultant verifying that proposed building design features are adequate to seek LEED certification. Following final building inspection, the Project applicant shall seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute.	Project Applicant/ Developer	City of Moreno Valley Planning Division and Building and Safety Division	Prior to issuance of building permits and following final building inspection				
MM 4.6-2 Prior to the issuance of grading and building permits, the Planning Division and the Land Development Division shall review grading plans and building plans to ensure that the following notes are specified: "With the exception of equipment used for asphalt paving, trenching, and off-site improvements, all diesel-powered construction equipment shall use B20 biodiesel fuel (comprising a minimum of 20% biodiesel) for the duration of construction activities.	Project Applicant/ Developer	City of Moreno Valley Planning Division and Land Development Division	Prior to issuance of grading and building permits				

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
Any construction equipment whose warranty would be voided upon the use of B20 biodiesel fuel shall be exempt from this requirement. The Building and Safety Division may exempt additional pieces of equipment from this requirement upon written request from the Project applicant documenting a valid technical, economic, or physical reason why the use of B20 biodiesel fuel cannot be used. This requirement shall only apply if B20 biodiesel fuel is available within 15 roadway miles from the Project site at the time construction activities commence." "During Project construction, existing electrical power sources (e.g., power poles) shall be provided for electric construction tools including saws, drills and compressors, to minimize the need for diesel or gasoline powered electric generators."							
MM 4.6-3 Prior to the approval of building permits, the Planning Division shall review landscaping plans to ensure that the following components are included: a) Landscaping palette emphasizing drought tolerant plants; and b) Use of water-efficient irrigation techniques.	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to approval of building permits				
MM 4.6-4 The Project's mechanical/electrical /plumbing (MEP) plans shall specify U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads (if showers are proposed). Prior to the approval of building permits, the Building and Safety Division shall review the plans to ensure that these features are specified, as appropriate.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the approval of building permits				
MM 4.6-5 Prior to the issuance of building permits, the Project applicant shall submit energy usage calculations to the Planning Division showing that the Project is designed to achieve 8% efficiency beyond the 2008 California Building Code Title 24 requirements. Example of measures that reduce energy consumption include, but are not limited to, the following (it being understood that the items listed below are not all required and merely present examples; the list is not all-inclusive and other features that reduce energy consumption also are acceptable): a) Increase in insulation such that heat transfer and thermal bridging is minimized; b) Limit air leakage through the structure and/or	Project Applicant/ Developer	City of Moreno Valley Planning Division and Building and Safety Division	Prior to the issuance of building permits				

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
within the heating and cooling distribution system; c) Use of energy-efficient space heating and cooling equipment; d) Installation of electrical hook-ups at loading dock areas; e) Installation of dual-paned or other energy efficient windows; f) Use of interior and exterior energy efficient lighting that exceeds the 2008 California Title 24 Energy Efficiency performance standards; g) Installation of automatic devices to turn off lights where they are not needed; h) To the extent they are compatible with Moreno Valley Municipal Code §9.17.030, Landscape and Irrigation Design Standards, the incorporation of shade-producing trees, particularly those that shade buildings and paved surfaces such as streets and parking lots; i) Application of a paint and surface color palette that emphasizes light and off-white colors that reflect heat away from buildings; j) Design of buildings with "cool roofs" using products certified by the Cool Roof Rating Council, and/or exposed roof surfaces using light and off-white colors; k) Design of buildings to accommodate photo-voltaic solar electricity systems or the installation of photo-voltaic solar electricity systems; l) Installation of ENERGY STAR-qualified energy-efficient appliances, heating and cooling systems, office equipment, and/or lighting products; and/or m) Other measures incorporated as part of the LEED Certification process.							
MM 4.6-6 Prior to the approval of street improvement plans, the Transportation Engineering Division shall ensure that all traffic lights installed as part of the Project will utilize Light Emitting Diodes.	Project Applicant/ Developer	City of Moreno Valley Department of Public Works (Transportation Engineering Division)	Prior to approval of street improvement plans				
MM 4.6-7 The Project shall comply with the following requirements to reduce the generation of solid waste during construction and under long-term operating conditions:	Project Applicant/ Developer	City of Moreno Valley Public Works Department Recycling Team, City of Moreno Valley	Prior to the issuance of grading permits, during construction, and prior to the issuance of				

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
a) Prior to the issuance of grading permits, a Waste Management Plan (WMP) addressing construction activity wastes shall be prepared by the Project Applicant and submitted to the Public Works Department and Building and Safety Division for review and approval. The WRP must conform to City requirements specified in Municipal Code Section 8.80.030, which requires that at least 50 percent of all construction and demolition debris be reused, recycled, or otherwise diverted from disposal in a landfill. During grading and construction, the Project Applicant shall recycle and reuse the required percentage of materials, and keep records of the tonnage or other measurements approved by the City that can be converted to tonnage amounts. Prior to issuance of an occupancy permit, the Project Applicant shall provide evidence (i.e., receipts, weight tags, or other type of acceptable verifications) to the Public Works Department to demonstrate Project compliance with the approved WRP. Evidence must clearly identify the amount of waste disposed and materials recycled. b) Recycling shall occur during Project operational activities in accordance with all applicable solid waste and recycling requirements of the City of Moreno Valley Public Works Department. Prior to the issuance of building permits, the Building and Safety Division shall review building plans to ensure that the locations and dimensions of recyclable collection enclosures and loading areas are specified on the building plans in conformance with City requirements and City Municipal Code Chapter 6.02 "Refuse Collection, Transfer and Disposal." Prior to the issuance of occupancy permits, the Land Development Division shall conduct a field inspection to ensure that the recyclable collection enclosures and loading areas are in place and ready for use		Building and Safety Division City of Moreno Valley Public Works Department Recycling Team, City of Moreno Valley Building and Safety Division	occupancy permits Prior to the issuance of building permits and prior to the issuance of occupancy permits				
MM 4.6-8 Prior to the issuance of building permits, the Planning Division shall review building plans to ensure that a minimum of two (2) parking spaces for each building will be reserved for carpools and vanpools. Prior to the issuance of occupancy permits, the Planning Division shall conduct a field inspection to ensure that a minimum of two (2) parking spaces for each building are marked as reserved for carpools and	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of building permits and prior to the issuance of occupancy permits				

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
vanpools.							
MM 4.6-9 Prior to the issuance of building permits for Parcel 1, the Planning Division and Building and Safety Division shall review building plans to ensure that a minimum of two (2) electric vehicle charging stations will be provided. Prior to the issuance of occupancy permits for Parcel 1, the Planning Division and Building and Safety Division shall conduct a field inspection to verify that the electric vehicle charging stations are in place and operable.	Project Applicant/ Developer	City of Moreno Valley Planning Division and Building and Safety Division	Prior to the issuance of building permits for Parcel 1 and prior to the issuance of occupancy permits for Parcel 1				
MM 4.6-10 Prior to the issuance of occupancy permit, the Project's property owner shall provide documentation to the Planning Division verifying that a provision is included in the building's lease agreement which stipulates that tenants of the building shall encourage carpooling and transit ridership by on-site employees.	Project Applicant/ Property Owner	City of Moreno Valley Planning Division	Prior to the issuance of occupancy permits				
Hazards and Hazardous Materials							
MM 4.7-1 Prior to grading permit issuance, the City shall verify that the Project's Grading Plan indicates: a) the location of all groundwater monitoring wells to be preserved in place; b) the method used to flag, stake, or otherwise identify the location of the groundwater monitoring wells in the field; and c) any required grading procedures or precautions to be taken in the vicinity of the monitoring well locations.	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the issuance of grading permit(s)				
MM 4.7-2 Prior to the issuance of grading permits, the City of Moreno Valley Land Development Division shall ensure that the Project's required Stormwater Pollution Prevention Plan (SWPPP) includes emergency procedures for accidental hazardous materials releases during construction. The procedures shall include necessary personal protective equipment, spill containment procedures, and training of workers to respond to accidental spills/releases.	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the issuance of grading permit(s)				
Noise							
MM 4.10-1 Prior to the issuance of any building or grading permits, the City of Moreno Valley Land Development division and Building and Safety Division shall review building and grading plans to ensure that the following notes are included: a) All construction activities, including but not limited to haul truck deliveries, shall be limited to	Project Applicant/ Developer, Project Construction Manager	City of Moreno Valley Land Development Division and Building and Safety Division	Prior to the issuance of grading permit(s) and building permit(s)				

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
between the hours of 7:00 a.m. and 8:00 p.m. b) Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. c) All stationary construction equipment shall be placed in such a manner so that emitted noise is directed away from the construction site's north and east property boundaries. d) Equipment staging shall be located at a minimum distance of 1,105 feet from the northeastern corner of the Project site's property boundary, as measured from the Iris Avenue right-of-way. e) All haul truck deliveries shall be limited to approved haul routes. Should alternate routes be necessary, haul trucks shall not use roadways that pass noise-sensitive land uses or residential dwellings unless approved by the City of Moreno Valley.							
MM 4.10-2 Prior to the issuance of any building or grading permits, the Project applicant shall prepare a Construction Haul Route exhibit identifying all public and private roadways that will be used for haul truck deliveries. The Construction Haul Route exhibit shall explicitly prohibit the use of Iris Avenue. The Construction Haul Route exhibit shall be subject to review and approval by the Building and Safety Division. Once approved, copies of the Construction Haul Route exhibit shall be provided to all construction contractors, and all construction contractors shall ensure that haul truck deliveries utilize only City-approved haul routes. Should alternate routes be necessary, haul trucks shall not use roadways that pass noise-sensitive land uses or residential dwellings unless prior approval is granted by the City of Moreno Valley.	Project Applicant/ Developer	City of Moreno Valley Land Development Division, Building, Safety Division and Transportation Engineering Division	Prior to the issuance of grading permit(s) and building permits				
Transportation/Traffic							
MM 4.11-1 Prior to issuance of the Project's first occupancy permit, a traffic signal (programmed under the City of Moreno Valley DIF) shall be installed at the intersection of Heacock Street/Gentian Avenue.	Project Applicant/ Developer	City of Moreno Valley Public Works Department (Transportation Engineering Division)	Prior to the issuance of the first (1st) occupancy permit				
MM 4.11-2 Prior to issuance of the first occupancy permit, the following improvements shall be in place at	Project Applicant/ Developer	City of Moreno Valley Public Works	Prior to the issuance of the first (1st)				

Mitigation Measure	Responsible Party	Verification of Compliance	Timing	Start Date	Finish Date	Monitoring	
						Date	Monitor
the intersection of Heacock Street/Iris Avenue: a) Traffic signal b) Northbound: two through lanes c) Northbound: one right turn lane		Department (Transportation Engineering Division)	occupancy permit				
MM 4.11-3 In the event that the City of Moreno Valley and/or the City of Perris establish a fair-share funding program(s) for improvements to any of the following intersections or immediately adjacent roadway segments that contribute to the intersection's level of service, then prior to the issuance of building permits, the Project shall contribute a fair-share payment to the funding program to address the Project's cumulative impacts to the following facilities: a) Intersection of Heacock Street/Cactus Avenue (Project's fair-share contribution is 6.4%); b) Intersection of Indian Street/San Michele Road (Project's traffic contribution is 5.8%); c) Intersection of Indian Street/Nandina Avenue (Project's traffic contribution is 7.5%); d) Intersection of Indian Street/Harley Knox Blvd (Project's traffic contribution is 5.4%).	Project Applicant/ Developer	City of Moreno Valley Land Development Division and Public Works Department (Transportation Engineering Division)	Prior to the issuance of building permits				
MM 4.11-4 In the event that the City of Moreno Valley establishes a fair-share funding program for improvements to Indian Street between Iris Avenue and Gentian Avenue prior to the issuance of building permits, the Project shall contribute a fair-share payment to the City-established funding program to address the Project's cumulative impacts at General Plan buildout.	Project Applicant/ Developer	City of Moreno Valley Land Development Division and Public Works Department (Transportation Engineering Division)	Prior to the issuance of building permits				

PLANNING COMMISSION RESOLUTION NO. 2012-34

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY RECOMMENDING TO THE CITY COUNCIL APPROVAL OF A GENERAL PLAN AMENDMENT (PA11-0001) AND SPECIFIC PLAN AMENDMENT (P11-004) TO AMEND THE GENERAL PLAN AND SPECIFIC PLAN NO. 208 TO MODIFY THE DESIGN AND CLASSIFICATION OF AN UNDEVELOPED SEGMENT OF KRAMERIA AVENUE TO ACCOMMODATE THE PROPOSED DEVELOPMENT AND DOWNGRADE THE ROADWAY CLASSIFICATION OF KRAMERIA AVENUE BETWEEN INDIAN AVENUE AND HEACOCK STREET FROM A MINOR ARTERIAL (88 FOOT RIGHT OF WAY) TO AN INDUSTRIAL COLLECTOR (78 FOOT RIGHT OF WAY) AND ADD PROPOSED COSMOS STREET AS A LOCAL STREET AND CUL DE SAC FOR A PROPOSED 1,484,407 SQUARE FOOT INDUSTRIAL WAREHOUSE COMPLEX ON AN APPROXIMATE 75.05 GROSS ACRE (66.93 NET ACRE) SITE LOCATED ON THE SOUTHEAST CORNER OF IRIS AVENUE AND HEACOCK STREET

WHEREAS, the applicant, Hogle Ireland Inc, and representative, Western Realco LLC has filed an application for the approval of a Specific Plan Amendment (P11-004) and General Plan Amendment (PA11-0001) as provided in the title of this report for an approximately 1,484,407 square foot industrial warehouse complex consisting on an approximately 75.05 acre (66.93 net acre) portion of land located on the southeast corner of Iris Avenue and Heacock Street.

WHEREAS, the project also includes applications for an Environmental Impact Report (EIR) (P11-004), a tentative parcel map (PA11-0007) and individual plot plans (PA11-0002 through PA11-0006). All are related, but will be included in additional resolutions with individual findings**.**

WHEREAS, on December 13, 2012 the Planning Commission of the City of Moreno Valley held a meeting to consider the application and provide a recommendation to City Council.

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred.

WHEREAS, there is hereby imposed on the subject development project certain fees, dedications, reservations and other exactions pursuant to state law and City ordinances.

ATTACHMENT 3

WHEREAS, pursuant to Government Code Section 66020(d)(1), **NOTICE IS HEREBY GIVEN** that this project is subject to certain fees, dedications, reservations and other exactions as provided herein.

NOW, THEREFORE, BE IT HEREBY FOUND, DETERMINED AND RESOLVED by the Planning Commission of the City of Moreno Valley as follows:

A. This Planning Commission hereby specifically finds that all of the facts set forth above in this Resolution are true and correct.

B. Based upon substantial evidence presented to this Planning Commission during the above-referenced meeting on December 13, 2012, including written and oral staff reports, and the record from the public hearing, this Planning Commission hereby specifically finds as follows:

1. **Conformance with General Plan Policies –** The proposed use is consistent with the General Plan, and its goals, objectives, policies and programs.

FACT: The proposed General Plan and Specific Plan amendments include modification of the design and classification of an undeveloped segment of Krameria Avenue to accommodate the development and to downgrade the roadway classification of Krameria Avenue between Indian Avenue and Heacock Street from a minor arterial (88 foot right of way) to an Industrial Collector (78 foot right of way). The proposed amendment and project will include "Cosmos Street" as a local street and cul de sac. The proposed industrial land use is consistent with the BP (Business Park) land use district in the General Plan, while the proposed General Plan amendment for the proposed development would not cause an inconsistency of land use.

The project would include conditions and mitigation measures for the lessening of proposed environmental impacts. Mitigation measures have been provided to minimize any potential environmental impacts, including air quality, biological resources, cultural resources, greenhouse gas emissions, hazardous materials, noise, and transportation/traffic. Mitigation measures for air quality, noise and transportation/traffic would not be reduced to less than significant levels in some cases based on the analysis and recommendations contained in the Final Environmental Impact Report (EIR) and corresponding Statement of Overriding Considerations. Said conditions of approval and mitigation measures have been included to address specific requirements and assist in providing compatibility of land

uses, including, but not limited to site improvements and aesthetic enhancements.

2. **Conformance with Zoning Regulations –** The proposed use complies with all applicable zoning and other regulations

FACT: The proposed project, consisting of various industrial uses requires General Plan and Specific Plan Amendments to allow modifications to an undeveloped segment of Krameria Avenue. No land use amendments are proposed for this project. The proposed project, including the proposed changes to Krameria Avenue, conforms with all applicable zoning regulations and conforms with the I or Industrial zoning district requirements within Specific Plan No. 208 which would allow for a variety of industrial land uses.

The project will also include mitigation measures for the lessening of proposed environmental impacts including, air quality, biological resources, cultural resources, greenhouse gas emissions, hazardous materials, noise, and transportation/traffic (however, not below significant levels with air quality, noise and transportation/traffic) based on the analysis and recommendations contained in the Final Environmental Impact Report (EIR) and corresponding Statement of Overriding Considerations. Said conditions of approval and mitigation measures have been included to address specific requirements and assist in providing compatibility of land uses, including, but not limited to site improvements and aesthetic enhancements.

3. **Health, Safety and Welfare –** The proposed use will not be detrimental to the public health, safety or welfare or materially injurious to properties or improvements in the vicinity.

FACT: An Environmental Impact report (EIR) has been prepared for the overall project, including the proposed project. Findings and a Statement of Overriding Considerations have been prepared for said project to deal with impacts related to noise, air quality and traffic. Said EIR is required to be certified and approved as a part of the proposed project. Said document is accompanied by a Mitigation Monitoring Program, which will ensure the completion of required mitigation measures for the project. The project site is surrounded by Iris Avenue and Heacock Street, and primarily vacant industrial land to the north, east and south, a residential subdivision northeast of the project site and the March Air Reserve Base to the west.

Specific mitigation measures have been provided to lessen the impacts (but not all below significant levels) for public health, safety and the welfare of surrounding properties and improvements in the vicinity of the project. With mitigation measures imposed for items including noise, air quality and traffic, the environmental impacts from the proposed project and use will be significantly reduced but still considered as significant and unavoidable, thereby requiring a statement of overriding considerations.

BE IT FURTHER RESOLVED that the Planning Commission **HEREBY APPROVES** Resolution No. 2012-34, **RECOMMENDING APPROVAL** to the City Council of a General Plan Amendment (PA11-0001) and Specific Plan Amendment (P11-004) for an approximate approximately 75.05 acre (66.93 net acre) portion of land for the modification of the design and classification of an undeveloped segment of Krameria Avenue to accommodate the development and downgrade the roadway classification of Krameria Avenue between Indian Avenue and Heacock Street from a minor arterial (88 foot right of way) to an Industrial Collector (78 foot right of way**)** for a proposed industrial project located on the southeast corner of Iris Avenue and Heacock Street, as documented in Exhibits A (General Plan Amendments) and B (Specific Plan Amendments), attached to this resolution, and based on the affirmative recommendation of the Adoption and Certification of the Environmental Impact Report Mitigation Monitoring Program and Statement of Overriding Considerations .

APPROVED this ____ day of _____, 2012.

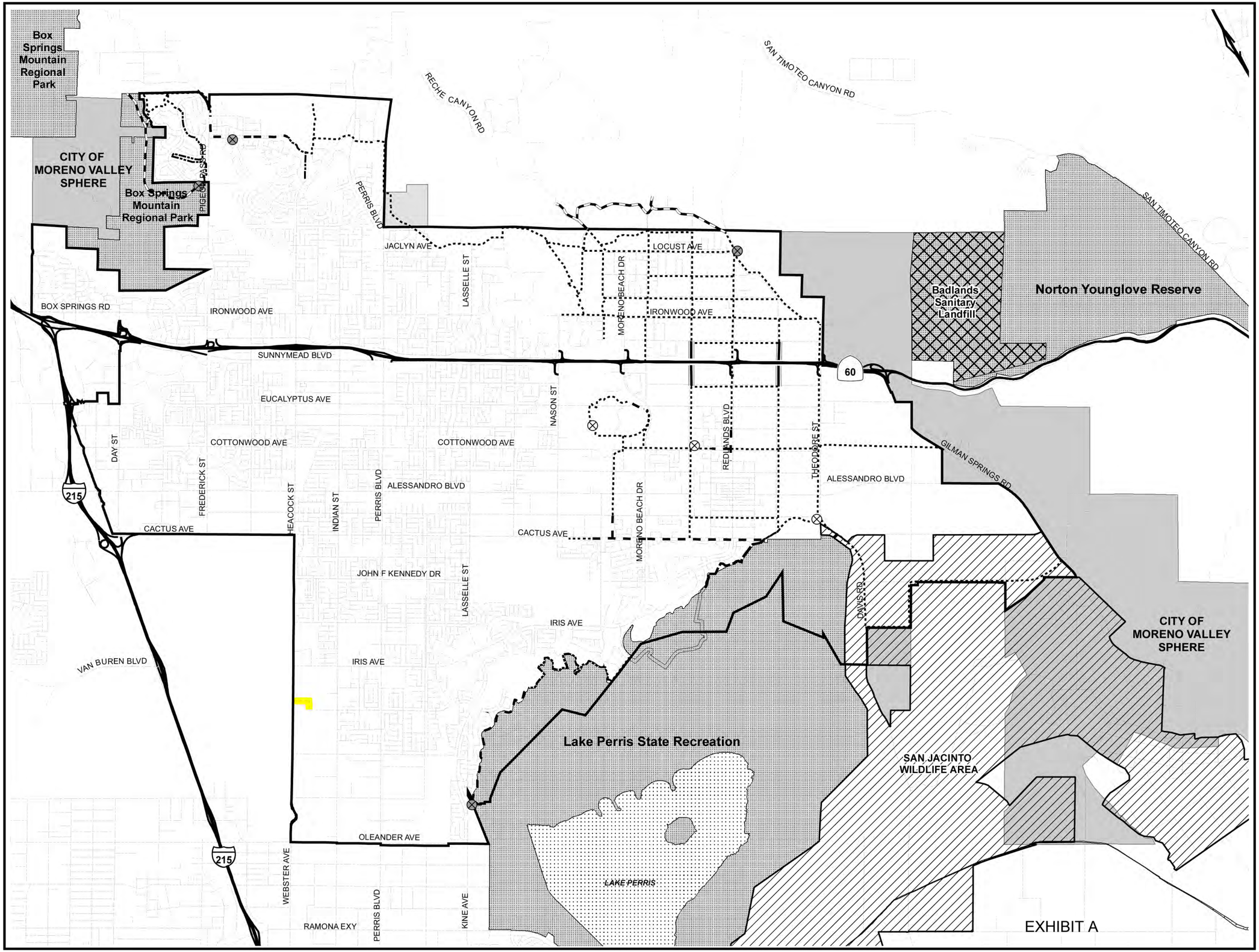
_____
Meli Van Natta
Chair, Planning Commission

ATTEST:

_____
John C. Terell, Planning Official
Secretary to the Planning Commission

APPROVED AS TO FORM:

_____
City Attorney



MORENO VALLEY

FIGURE 4-3 MASTER PLAN OF TRAILS

- Trail Staging - Existing
- Trail Staging - Proposed
- Streets
- Highways
- Improved Trail
- Multiuse Trail
- Proposed Trail
- Regional Trail
- State Trail
- Proposed Subject to Feasibility of Freeway Bridge or Underpass
- Badlands Landfill
- State and County Parks
- Moreno Valley
- Moreno Valley Sphere
- San Jacinto Wildlife Area
- Waterbodies

* Trail locations are approximate

N

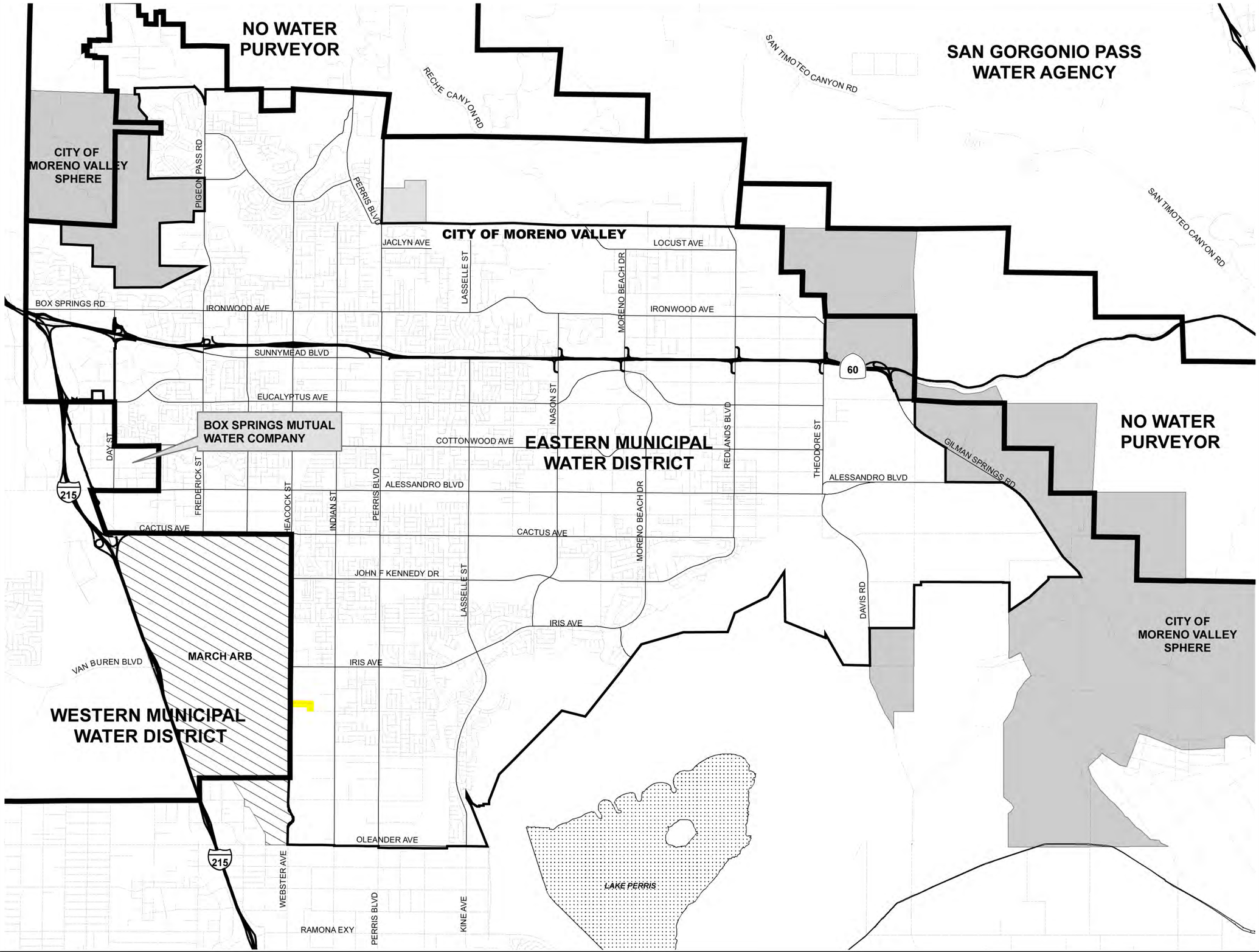
5,000 2,500 0 5,000 Feet

0.5 0.25 0 0.5 1 Miles

Date: July 11, 2006
State Plane NAD83 Zone 6
File: G:\arcmap\planning\gen_plan_updates\master_trails.mxd

GEOGRAPHIC INFORMATION SYSTEMS

The information shown on this map was compiled from the Riverside County GIS and the City of Moreno Valley GIS. The land base and facility information on this map is for display purposes only and should not be relied upon without independent verification as to its accuracy. Riverside County and City of Moreno Valley will not be held responsible for any claims, losses or damages resulting from the use of this map.



MORENO VALLEY

FIGURE 7-1
WATER PURVEYOR SERVICE AREA MAP

- Streets
- Major Streets
- Highways
- Service Areas
- Moreno Valley
- Moreno Valley Sphere
- March ARB
- Waterbodies

N

5,000 2,500 0 5,000 Feet

0.5 0.25 0 0.5 1 Miles

Date: July 11, 2006
State Plane NAD83 Zone 6
File: G:\arcmap\planning\gen_plan_updates\water_serv_area.mxd

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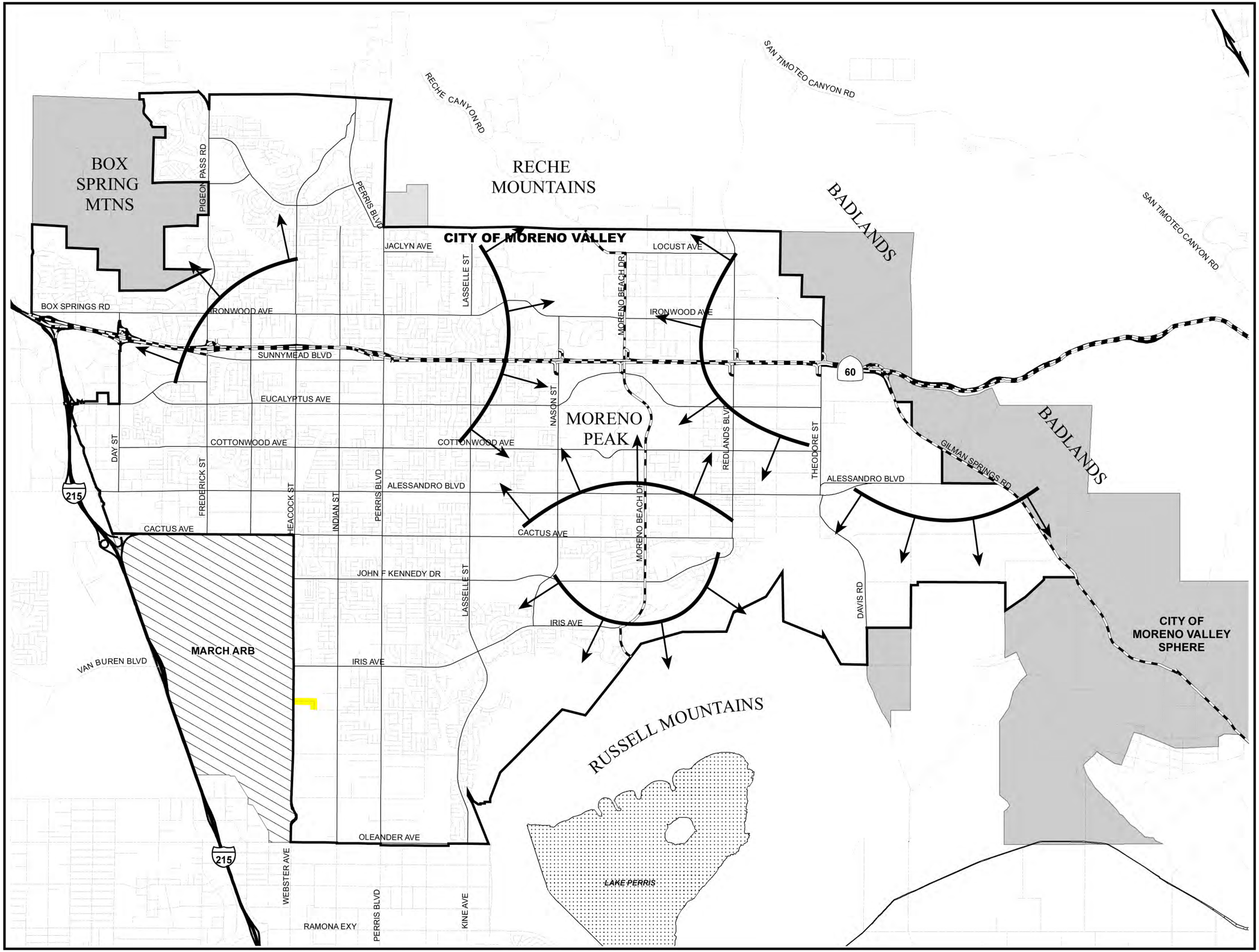

MORENO VALLEY

FIGURE 7-2 MAJOR SCENIC RESOURCES

- Streets
- Major Streets
- Highways
- Scenic Route
- Moreno Valley
- Moreno Valley Sphere
- March ARB
- Waterbodies
- View Corridor

N

5,000 2,500 0 5,000 Feet

0.5 0.25 0 0.5 1 Miles

Date: July 11, 2006
State Plane NAD83 Zone 6
File: G:\arcmap\planning\gen_plan_updates\mjr_scenic.mxd

GEOGRAPHIC INFORMATION SYSTEMS

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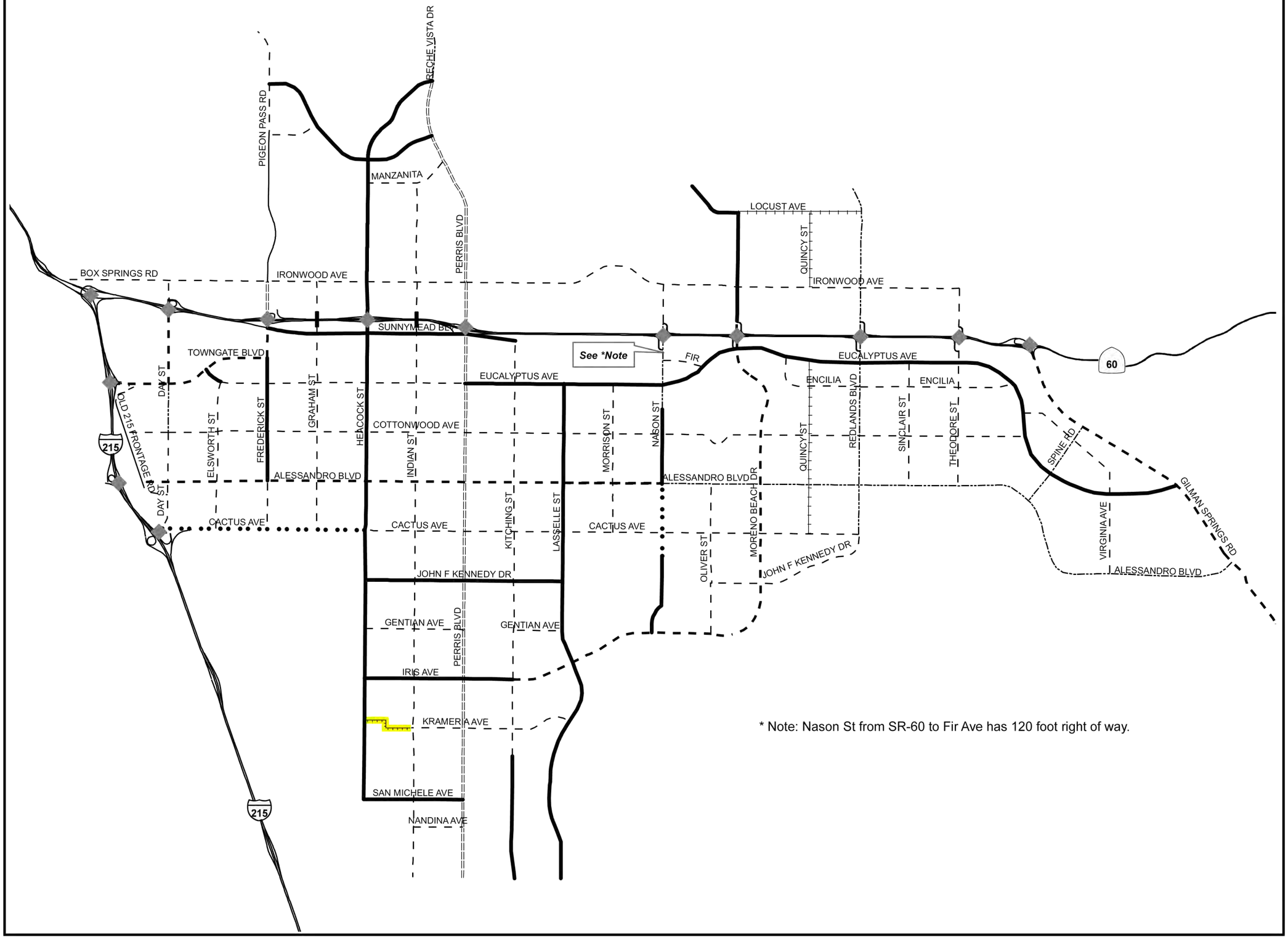

* Note: Nason St from SR-60 to Fir Ave has 120 foot right of way.

MORENO VALLEY

FIGURE 9-1
CIRCULATION PLAN

Street Classification

- Freeway
- Divided Major Arterial
- Divided Major Arterial - Reduced Cross Section
- Divided Arterial - 6 lane
- Divided Arterial - 4 lane
- Arterial
- Minor Arterial
- Minor Arterial - Pigeon Pass Cross Section
- Collector
- Freeway Overpass
- Freeway Interchange

N

5,000 2,500 0 5,000 Feet

0.5 0.25 0 0.5 1 Miles

Date: July 11, 2006
State Plane NAD83 Zone 6
File: G:\arcmap\planning\gen_plan_updates\circ_plan_fig91.mxd

GEOGRAPHIC INFORMATION SYSTEMS

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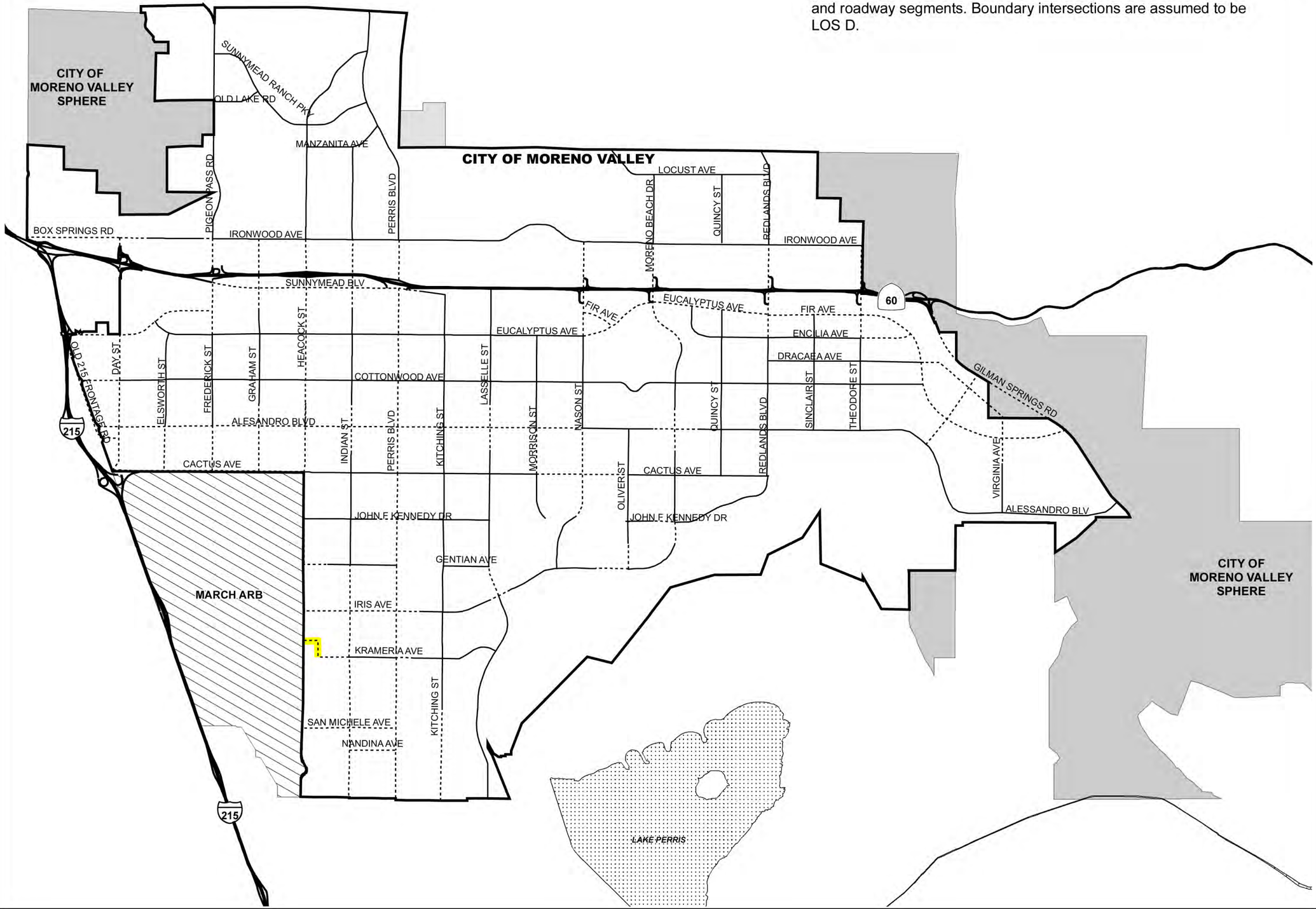
LOS D is applicable to intersections and roadway segments that are adjacent to freeway on/off ramps and/or adjacent to employment generating land uses. LOS is applicable to all other intersections and roadway segments. Boundary intersections are assumed to be LOS D.



MORENO VALLEY

FIGURE 9-2
LOS STANDARDS

- LOS C
- LOS D
- Highways
- Moreno Valley
- Moreno Valley Sphere
- March ARB
- Waterbodies

N

5,000 2,500 0 5,000 Feet

0.5 0.25 0 0.5 1 Miles

Date: July 11, 2006
State Plane NAD83 Zone 6
File: G:\arcmap\planning\gen_plan_updates\los_standards.mxd

GEOGRAPHIC INFORMATION SYSTEMS

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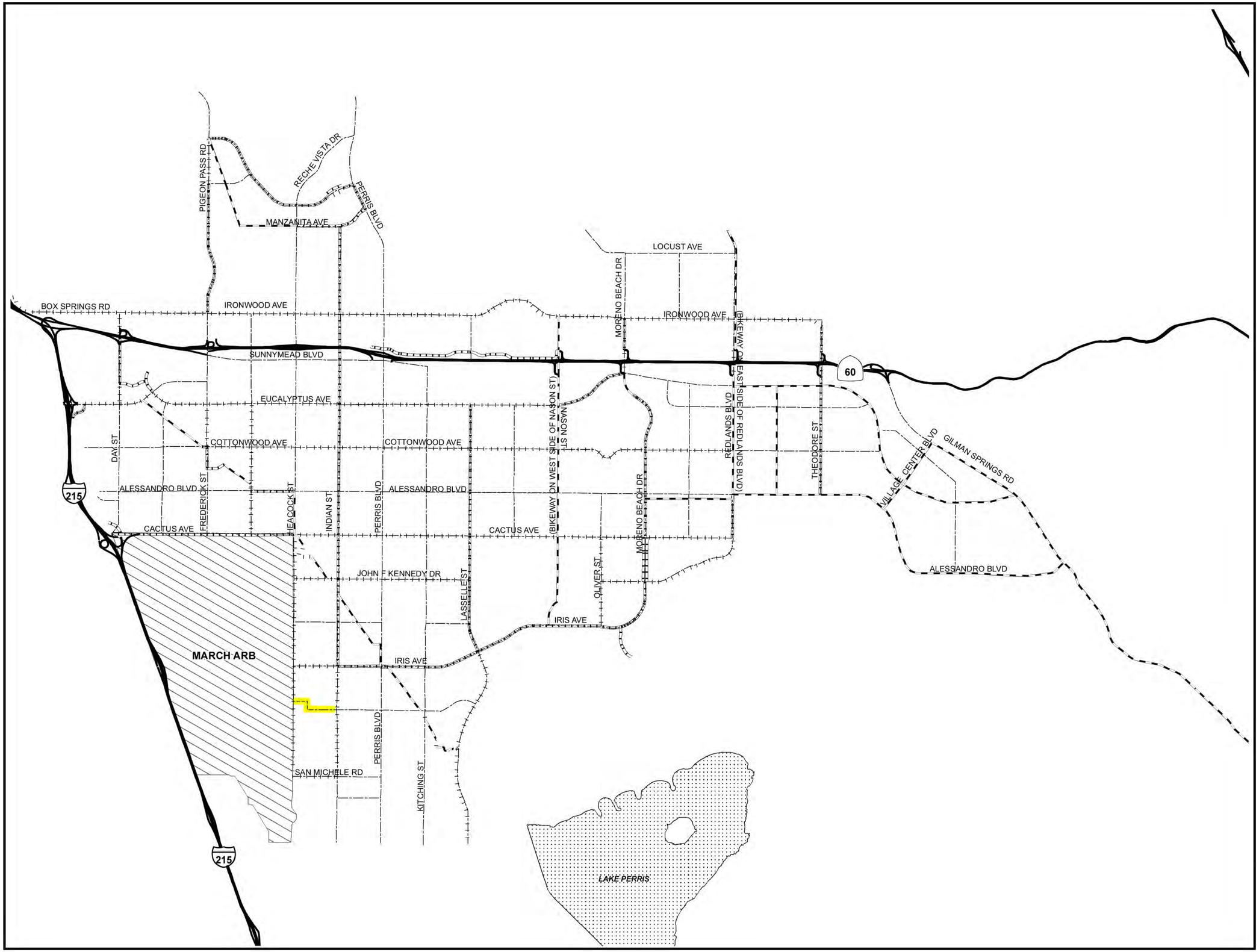

MORENO VALLEY

FIGURE 9-4
BIKEWAY PLAN

Bikeway Classification

- Class I
- Class II
- Class III
- Roads
- Highways
- March ARB
- Waterbodies

N

5,000 2,500 0 5,000 Feet

0.5 0.25 0 0.5 1 Miles

Date: July 11, 2006
State Plane NAD83 Zone 6
File: G:\arcmap\planning\gen_plan_updates\bikeway.mxd

GEOGRAPHIC INFORMATION SYSTEMS

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b. Divided Major Arterials

Divided major arterials will consist of a 110-foot right-of-way width and an 86-foot curb-to-curb width, with a raised median and two travel lanes in each direction. Bicycle/parking lanes and sidewalks shall be provided per City Standards. Divided major arterials planned for the Project area include:
Perris Boulevard

c. Major Arterials

Major arterials will consist of a 100-foot right-of-way width and a 76-foot curb-to-curb width, with two travel lanes in each direction. Bicycle/parking lanes and sidewalks shall be provided per City Standards. Major arterials planned for the Project area include:

Kitching Street
Heacock Street
Iris Avenue
San Michele Avenue

d. Minor Arterials

Minor arterials within and surrounding the site have a planned right-of-way width of 88 feet and a curb-to-curb width of 64 feet. Two travel lanes are planned in each direction. Bicycle/parking lanes and sidewalks shall be provided per City Standards. Minor arterials planned for the construction and improvement within the Project site include:

Krameria Avenue (Kitching Street to Indian Street)
Nandina Avenue (Indian Street to ~~Kitching St~~ Perris Blvd.)
Indian Street

e. Collector Streets

Internal Industrial/Commercial Collector roadways within Project sub-areas are planned for a 78-foot right-of-way and a curb-to-curb width of 56 feet. A six-foot (6') public sidewalk is included within the parkway width on both sides of the road. These roadways provide loop circulation within the Project sub-areas and

EXHIBIT B

allow for access to land uses.

Krameria Avenue (Indian Street to Heacock Street)

f. Local Streets and Cul de Sacs

Local streets within the Project area provide internal circulation to individual industrial or business park uses. Sidewalks shall be provided in the public right-of-way in accordance with City standards.

Proposed Cosmos Street

g. Truck Routes

The Public Works Department has established truck routes for the City. The only currently approved routes in the Project area are Perris Boulevard and a portion of Heacock Street. With the implementation of funded improvements to San Michele Avenue and Indian Street, these streets along with additional portions of Heacock Street should be considered for inclusion in the City's approved truck route list.

h. Pedestrian Paths and Bikeways

The Project Development Plan provides a trail system for non-vehicular traffic within the Project area. The system consists of two components: pedestrian sidewalks and bikeways.

Pedestrian Sidewalks: A sidewalk system throughout the Area Plan shall be located in all street rights-of-ways and shall be developed in accordance with City standards.

Where pedestrian pathways are proposed, an additional three (3) foot width of sidewalk shall be provided.

Bikeways: A Class II or III bikeway shall be provided on arterials in accordance with the City's General Plan Circulation Element, as illustrated on Map IV-2.

i. Parking

Off-street parking will be provided in lots associated with each building or building complex. On-street parking will be permitted on major arterials within and surrounding the Project site as outlined in the City's Development Code.

Kitching Street
Heacock Street
Iris Avenue
San Michele Avenue

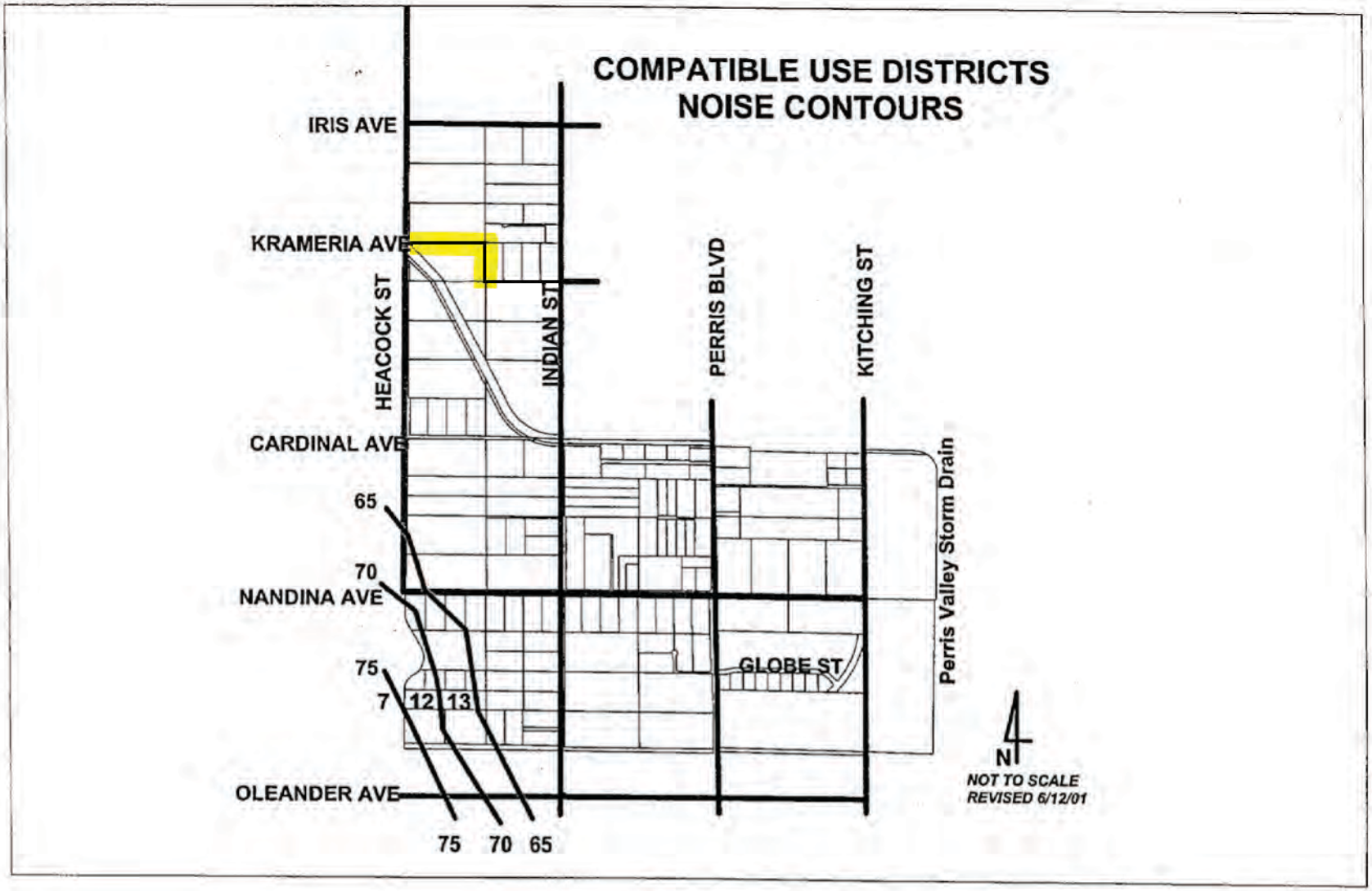
Minor Arterials (88' ROW)

Krameria Avenue (between Kitching and Indian Street)
Nandina Avenue (between Indian St. & ~~Kitching St.~~ Perris Blvd.)
Indian Street

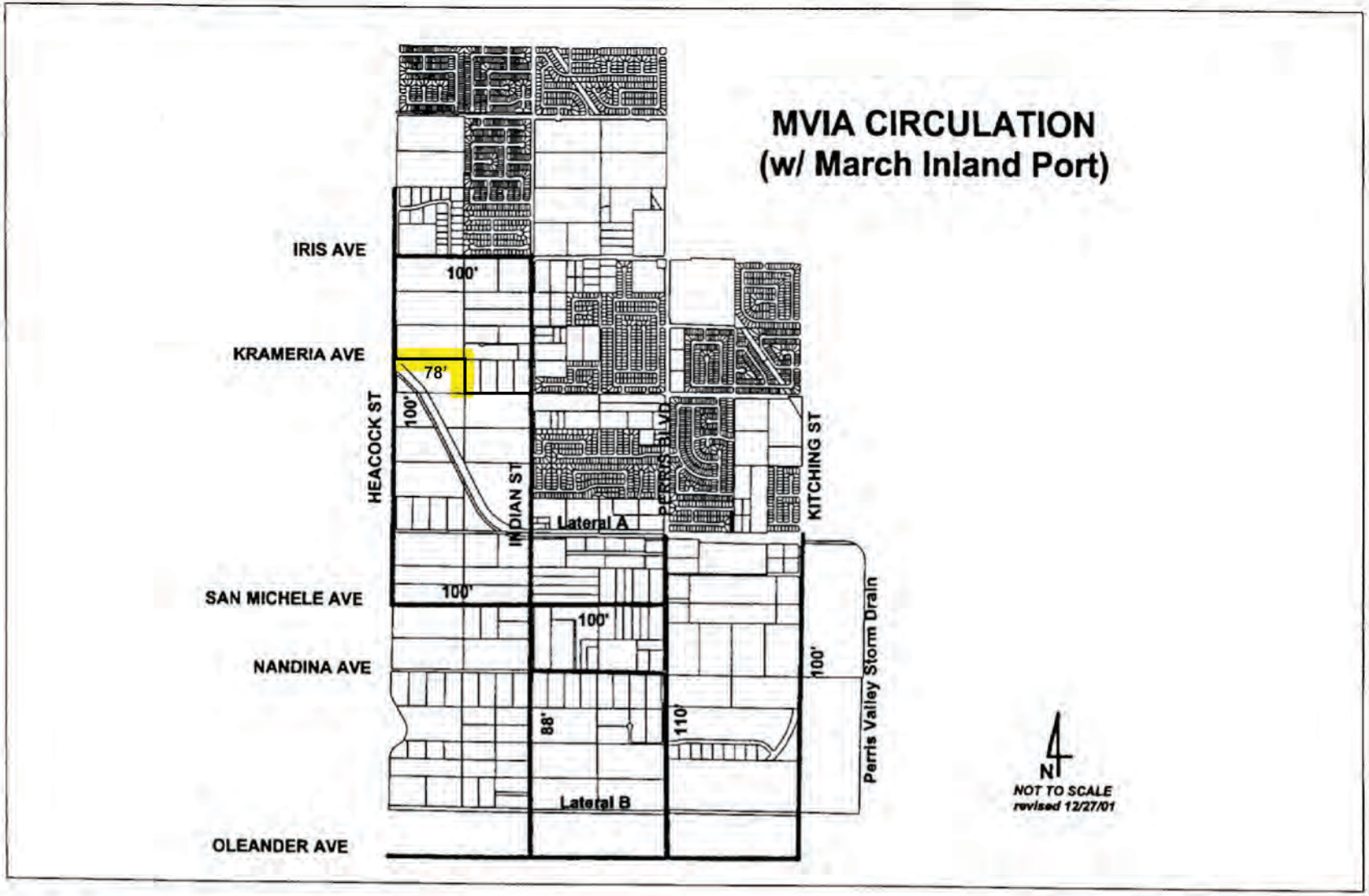
Industrial Collector (78' ROW):
Krameria Avenue (between Indian Street and Heacock Street)

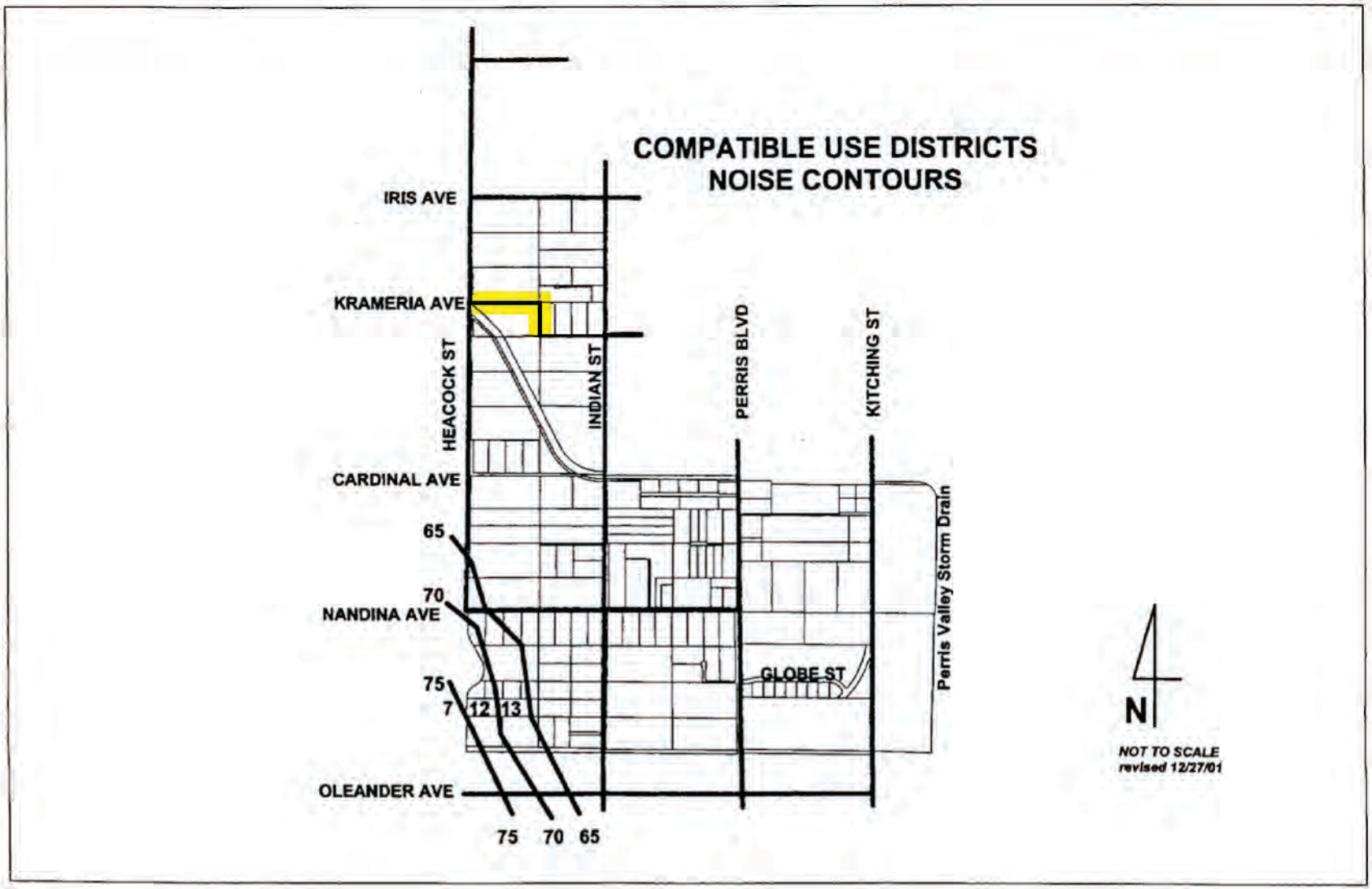
Infrastructure and Public Facilities: The Project Development Plan includes master plans for water, sewer, and drainage facilities capable of providing an adequate level of service to the Project land uses. The proposed water system includes the appropriate fire flow requirements for the Project. Waste collection service will be arranged through the private collection companies that service the area.

Infrastructure will be phased to provide service to Project land uses as development occurs and through the use of collected mitigation/impact fees.


COMPATIBLE USE DISTRICTS
NOISE CONTOURS
IRIS AVE
KRAMERIA AVE
HEACOCK ST
INDIAN ST
PERRIS BLVD
KITCHING ST
CARDINAL AVE
65
70
NANDINA AVE
75
7
12
13
GLOBE ST
Perris Valley Storm Drain
OLEANDER AVE
75
70
65
N
NOT TO SCALE
REVISED 6/12/01

MAP II–1


MVIA CIRCULATION
(w/ March Inland Port)
IRIS AVE
KRAMERIA AVE
SAN MICHELE AVE
NANDINA AVE
OLEANDER AVE
HEACOCK ST
INDIAN ST
PERRIS BLVD
KITCHING ST
Lateral A
Lateral B
Perris Valley Storm Drain
100'
78'
88'
110'
N
NOT TO SCALE
revised 12/27/01


COMPATIBLE USE DISTRICTS
NOISE CONTOURS
IRIS AVE
KRAMERIA AVE
HEACOCK ST
INDIAN ST
PERRIS BLVD
KITCHING ST
CARDINAL AVE
65
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NANDINA AVE
75
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GLOBE ST
Perris Valley Storm Drain
OLEANDER AVE
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70
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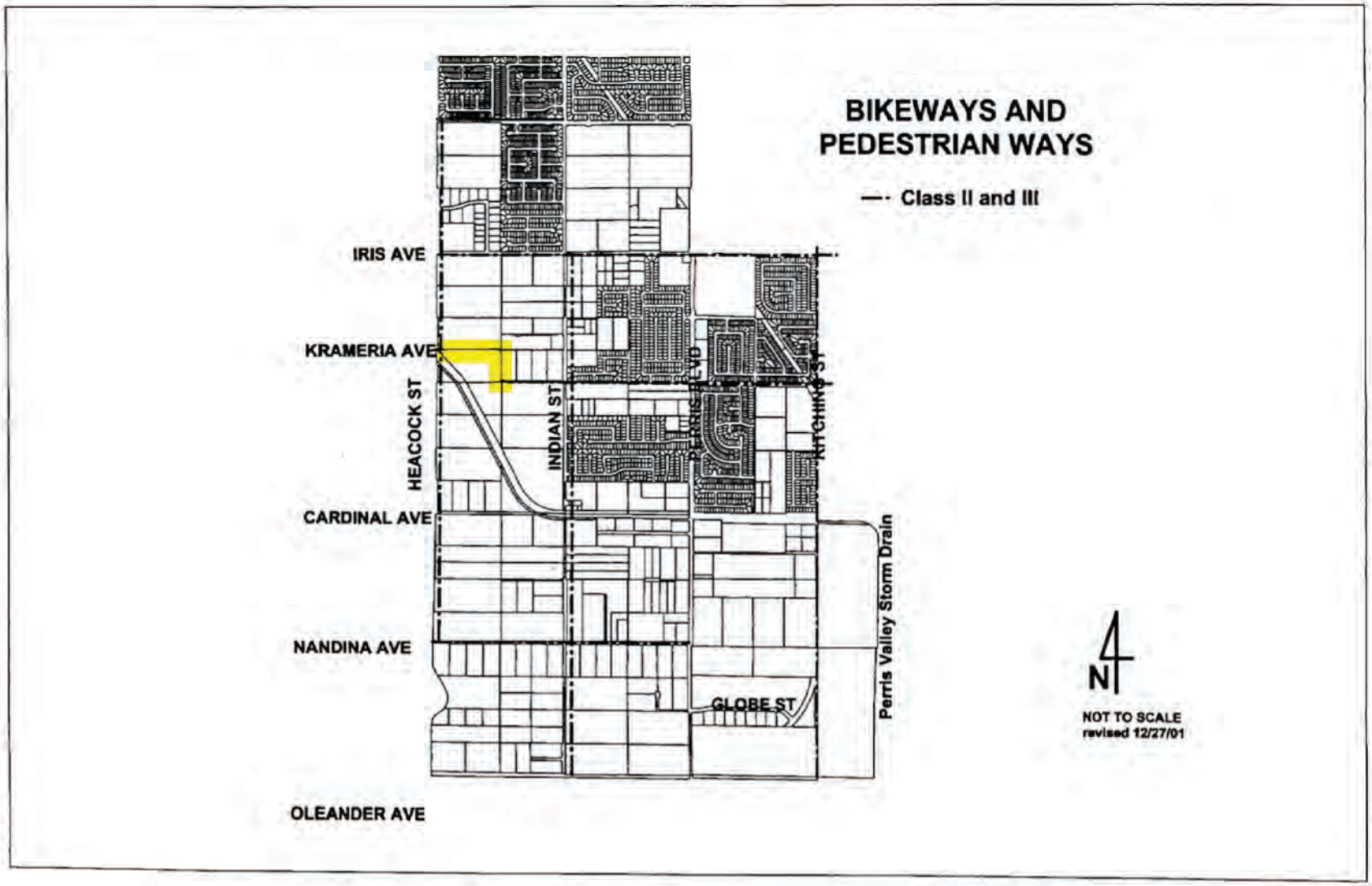
NOT TO SCALE
revised 12/27/01


BIKEWAYS AND
PEDESTRIAN WAYS
Class II and III
IRIS AVE
KRAMERIA AVE
HEACOCK ST
INDIAN ST
PERRIS BLVD
KITCHING ST
CARDINAL AVE
NANDINA AVE
GLOBE ST
Perris Valley Storm Drain
OLEANDER AVE
N
NOT TO SCALE
revised 12/27/01

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PLANNING COMMISSION RESOLUTION NO. 2012-35

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY RECOMMENDING APPROVAL OF PA11-0002 THROUGH PA11-0006 (MASTER PLOT PLAN AND FOUR INDIVIDUAL PLOT PLANS) FOR AN APPROXIMATE 1,484,407 SQUARE FOOT INDUSTRIAL WAREHOUSE COMPLEX WITH ANCILLARY AND OFFICE USES ON AN APPROXIMATELY 75.05 GROSS ACRE (66.93 NET ACRE) PORTION OF LAND GENERALLY LOCATED ON THE SOUTHEAST CORNER OF IRIS AVENUE AND HEACOCK STREET

WHEREAS, the applicant, Hogle Ireland Inc, and representative, Western Realco LLC has filed an application for the approval of PA11-0002 through PA11-0006 (Master and Individual Plot Plans) consisting of an approximately 1,484,407 square foot industrial warehouse complex consisting of four parcels of land, with ancillary and office uses, on an approximately 75 acre (67 net acre) portion of land located on the southeast corner of Moreno Beach Drive and Iris Avenue

WHEREAS, the project also includes applications for an Environmental Impact Report (EIR) under P11-005, a Specific Plan Amendment (P11-004), General Plan Amendment (PA11-0001) and Tentative Tract Map No. 35879 (PA11-0007). All of the discretionary applications are related but will be provided in additional resolutions with individual findings.

WHEREAS, on December 13, 2012, the Planning Commission of the City of Moreno Valley held a meeting to consider and provide a recommendation on the application.

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred.

WHEREAS, there is hereby imposed on the subject development project certain fees, dedications, reservations and other exactions pursuant to state law and City ordinances;

WHEREAS, pursuant to Government Code Section 66020(d)(1), **NOTICE IS HEREBY GIVEN** that this project is subject to certain fees, dedications, reservations and other exactions as provided herein.

NOW, THEREFORE, BE IT HEREBY FOUND, DETERMINED AND RESOLVED by the Planning Commission of the City of Moreno Valley as follows:

ATTACHMENT 4

A. This Planning Commission hereby specifically finds that all of the facts set forth above in this Resolution are true and correct.

B. Based upon substantial evidence presented to this Planning Commission during the above-referenced meeting on December 13, 2012, including written and oral staff reports, and the record from the public hearing, this Planning Commission hereby specifically finds as follows:

1. **Conformance with General Plan Policies –** The proposed use is consistent with the General Plan, and its goals, objectives, policies and programs.

   FACT: The project proposes approximately 1,484,407 square feet of warehouse and manufacturing uses on approximately 75 acres of land area (approximately 67 net acres of land), to include four separate industrial buildings including Parcel 1- 47.42 acres and a 1,103,003 square feet building, Parcel 2 – 11.77 acres and a 277,243 square foot building, Parcel 3 – 5.95 acre parcel and a 87,429 square foot building and Parcel 4 – 1.54 acre parcel and a 16,732 square foot building. The proposal is consistent with the General Plan land use designation of BP or Business Park, which allows for a variety of industrial related land uses from office and business park uses to warehouse and manufacturing uses.

   Greater compatibility of the proposed land use with surrounding land uses in the general vicinity of the project will be achieved by project design, mitigation and conditions of approval. For example, dense landscape and proposed fourteen (14) foot screen walls used for screening purposes will allow for necessary compatibility of the intended industrial warehouse use with any surrounding commercial, business park or residential properties in the general vicinity that would be developed in the future.

2. **Conformance with Zoning Regulations –** The proposed use complies with all applicable zoning and other regulations.

   FACT: The proposed project conforms with all applicable zoning regulations and conforms with the I or Industrial zoning district requirements within Specific Plan No. 208 which would allow for a variety of industrial land uses. Various conditions of approval have also been included to address specific requirements, including but not limited to site improvements and aesthetic enhancements.

3. **Health, Safety and Welfare –** The proposed use will not be detrimental to the public health, safety or welfare or materially injurious to properties or improvements in the vicinity.

FACT: An Environmental Impact report (EIR) has been prepared for the overall project, including the proposed Tentative Parcel Map, Change of Zone, Specific Plan Amendment and Plot Plans. Findings and a Statement of Overriding Considerations has been prepared for said project to deal with impacts that cannot be reduced to less than significant levels**.** Said EIR is required to be certified and approved as a part of the proposed project. Said EIR is also accompanied by a Mitigation Monitoring Program, which will ensure the completion of required mitigation measures for the project. The project site is surrounded by Iris Avenue and Heacock Street, and primarily vacant industrial land to the north, east and south, a residential subdivision northeast of the project site and the March Air Reserve Base to the west.

The project would include conditions and mitigation measures for the lessening of proposed environmental impacts. Mitigation measures have been provided to minimize any potential environmental impacts, including air quality, biological resources, cultural resources, greenhouse gas emissions, hazardous materials, noise, and transportation/traffic. Mitigation measures for air quality, noise and transportation/traffic would not be reduced to less than significant levels in some cases based on the analysis and recommendations contained in the Final Environmental Impact Report (EIR) and corresponding Statement of Overriding Considerations. Said conditions of approval and mitigation measures have been included to address specific requirements and assist in providing compatibility of land uses, including, but not limited to site improvements and aesthetic enhancements. Said mitigation measures included with the project will lessen environmental impacts on any existing or future properties within the general vicinity of the proposed development and project and reduce impacts to public health, safety and welfare.

4. Location, Design and Operation – The location, design and operation of the proposed project will be compatible with existing and planned land uses in the vicinity.

FACT: Surrounding land uses include the March Air Reserve Base to the west, vacant industrial land across Iris Avenue to the north, vacant industrial land to the east and south. The closest single-family residential land uses lie to the northeast of the site across Iris Avenue. The location, design and operation of the proposed project will be compatible with existing and planned land uses in the general vicinity with proposed mitigation measures, conditions of approval and design of the plot plan and architecture of the

buildings. For example, dense landscape and proposed fourteen (14) foot high screen walls provided for screening purposes will allow for necessary compatibility of the use with any surrounding properties in the general vicinity that would be developed in the future.

The location, design and operation of the proposed project will be compatible with existing and planned land uses with mitigation measures imposed for noise, air quality, and traffic. Said mitigation measures included with the project will lessen environmental impacts on any existing or future properties within the general vicinity of the proposed development and project, reduce impacts to public health, safety and welfare, and provide greater compatibility of land uses between the proposed project and surrounding properties in the general vicinity.

C. FEES, DEDICATIONS, RESERVATIONS, AND OTHER EXACTIONS

1. Impact, mitigation and other fees are due and payable under currently applicable ordinances and resolutions. These fees may include but are not limited to: Development impact fee, Stephens Kangaroo Habitat Conservation fee, Underground Utilities in lieu Fee, Area Drainage Plan fee, Bridge and Thoroughfare Mitigation fee (Future) and Traffic Signal Mitigation fee. The final amount of fees payable is dependent upon information provided by the applicant and will be determined at the time the fees become due and payable.

Unless otherwise provided for by this resolution, all impact fees shall be calculated and collected at the time and in the manner provided in Chapter 3.32 of the City of Moreno Valley Municipal Code or as so provided in the applicable ordinances and resolutions. The City expressly reserves the right to amend the fees and the fee calculations consistent with applicable law.

2. DEDICATIONS, RESERVATIONS, AND OTHER EXACTIONS

The adopted Conditions of Approval for PA11-0002 through PA11-0006 (Plot Plans) incorporated herein by reference, may include dedications, reservations, and exactions pursuant to Government Code Section 66020 (d) (1).

3. The City expressly reserves the right to establish, modify or adjust any fee, dedication, reservation or other exaction to the extent permitted and as authorized by law.

Pursuant to Government Code Section 66020(d)(1), NOTICE IS FURTHER GIVEN that the 90 day period to protest the imposition of any impact fee, dedication, reservation, or other exaction described in this resolution begins on the effective date of this resolution and any such protest must be in a manner that complies with Section 66020(a) and failure to timely follow this procedure will bar any subsequent legal action to attack, review, set aside, void or annul imposition.

Your right to protest the fees, dedications, reservations, or other exactions does not apply to planning, zoning, grading, or other similar application processing fees or service fees in connection with this project and it does not apply to any fees, dedication, reservations, or other exactions of which you have been given a notice similar to this nor does it revive challenges to any fees for which the Statute of Limitations has previously expired.

BE IT FURTHER RESOLVED that the Planning Commission **HEREBY APPROVES** Resolution No. 2012-35, **RECOMMENDING APPROVAL TO CITY COUNCIL** of PA11-0002 through PA11-0006 (Master and Individual Plot Plans) for a 1,484,407 square foot industrial warehouse complex consisting of four parcels of land, with ancillary and office uses, on an approximately 75.05 gross acre portion of land based on the affirmative recommendation of the Adoption and Certification of the Environmental Impact Report Mitigation Monitoring Program and Statement of Overriding Considerations, subject to the attached conditions of approval included as Exhibit A.

APPROVED this ____ day of _____, 2012

_____
Meli Van Natta
Chair, Planning Commission

ATTEST:

_____
John C. Terell, Planning Official
Secretary to the Planning Commission

APPROVED AS TO FORM:

_____
City Attorney

Attached: Conditions of Approval

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
PLOT PLAN
PA11-0002-PA11-0006 (Master and Four Individual Plot Plans)
APN: 316-020-032 through 036

APPROVAL DATE:
EXPIRATION DATE:

_x_ **Planning (P), including School District (S), Post Office (PO), Building (B)**
_x_ **Fire Prevention Bureau (F)**
_x_ **Public Works, Land Development (LD)**
_x_ **Public Works, Special Districts (SD)**
_x_ **Public Works – Transportation Engineering (TE)**
___ **Parks & Community Services (PCS)**
_x_ **Police (PD)**
_x_ **Moreno Valley Utilities**
___ **Other (Specify or Delete)**

Note: All Special conditions are in bold lettering. All other conditions are standard to all or most development projects.

COMMUNITY & ECONOMIC DEVELOPMENT DEPARTMENT

Planning Division

For questions regarding any Planning condition of approval, please contact the Planning Division at (951) 413-3206.

GENERAL CONDITIONS

P1. This approval shall expire three years after the approval date of this project unless used or extended as provided for by the City of Moreno Valley Municipal Code; otherwise it shall become null and void and of no effect whatsoever. Use means the beginning of substantial construction contemplated by this approval within the three-year period, which is thereafter pursued to completion, or the beginning of substantial utilization contemplated by this approval. (MC 9.02.230)

EXHIBIT A

P2. This project is located within Specific Plan No. 208. The provisions of the specific plan, the design manual, their subsequent amendments, and the Conditions of Approval shall prevail unless modified herein. (MC 9.13)

P3. The site shall be developed in accordance with the approved plans on file in the Community & Economic Development Department - Planning Division, the Municipal Code regulations, General Plan, and the conditions contained herein. Prior to any use of the project site or business activity being commenced thereon, all Conditions of Approval shall be completed to the satisfaction of the Planning Official. (MC 9.14.020)

P4. The developer, or the developer's successor-in-interest, shall be responsible for maintaining any undeveloped portion of the site in a manner that provides for the control of weeds, erosion and dust. (MC 9.02.030)

P5. All landscaped areas shall be maintained in a healthy and thriving condition, free from weeds, trash and debris. (MC 9.02.030)

P6. Any signs indicated on the submitted plans are not included with this approval. Any signs**,** whether permanent (e.g. wall, monument) or temporary (e.g. banner, flag), proposed for this development shall be designed in conformance with the sign provisions of the Development Code or approved sign program, if applicable, and shall require separate application and approval by the Planning Division. No signs are permitted in the public right of way. (MC 9.12)

P7. (GP) All site plans, grading plans, landscape and irrigation plans, fence/wall plans, lighting plans and street improvement plans shall be coordinated for consistency with this approval.

Special Conditions

P8. **The site has been approved for an industrial/warehouse complex. A change or modification shall require separate approval.**

Prior to Issuance of Grading Permits

P9. (GP) If potential historic, archaeological, or paleontological resources are uncovered during excavation or construction activities at the project site, work in the affected area will cease immediately and a qualified person (meeting the Secretary of the Interior's standards (36CFR61)) shall be consulted by the applicant to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, prehistoric, or paleontological resource. Determinations and recommendations by the consultant shall be implemented as deemed appropriate by the Community & Economic Development Director, in

consultation with the State Historic Preservation Officer (SHPO) and any and all affected Native American Tribes before any further work commences in the affected area.

If human remains are discovered, no further disturbance shall occur until the County Coroner has made necessary findings as to origin. If the County Coroner determines that the remains are potentially Native American, the California Native American Heritage Commission shall be contacted within a reasonable timeframe to identify the "most likely descendant." The "most likely descendant" shall then make recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98). (GP Objective 23.3, CEQA).

P10. (GP) Prior to issuance of grading permits, the developer shall pay the applicable Stephens' Kangaroo Rat (SKR) Habitat Conservation Plan mitigation fee. (Ord)

P11. (GP) Prior to approval of any grading permit, the developer shall submit for review and approval of a tree plan to the Planning Division. The plan shall identify all mature trees (4 inch trunk diameter or larger) on the subject property and City right-of-way. Using the grading plan as a base, the plan shall indicate trees to be relocated, retained, and removed. Replacement trees shall be shown on the plan, be a minimum size of 24 inch box, and meet a ratio of three replacement trees for each mature tree removed or as approved by the **Planning Official**. (GP Objective 4.4, 4.5, DG)

P12. **(GP) Prior to approval of any grading permits, final median enhancement/landscape/irrigation plans shall be submitted to the Planning Division, and Public Works Department – Special Districts for review and approval by each division. (GP - Circulation Master Plan) Timing of installation shall be determined by PW- Special Districts.**

P13. **(GP) Prior to approval of any grading permits, plans for any security gate system shall be submitted to the Planning Division for review and approval.**

P14. **(GP) Prior to the issuance of any grading permits and prior to any physical disturbance of any natural drainage course, for any area determined to contain riparian vegetation, the applicant shall obtain a stream bed alteration agreement or permit (401 and or 404 permits), or a written waiver of the requirement for such an agreement or permit, from both the California Department of Fish and Game and the U.S. Army Corps of Engineers. Written verification of such a permit or waiver shall be provided to the Planning Division and the Public Works Department - Land Development Division. (CEQA, State and Federal codes)**

P15. **(GP) Within thirty (30) days prior to any grading or other land disturbance, a pre-construction survey for Burrowing Owls shall be conducted pursuant to the established guidelines of Multiple Species Habitat Conservation Plan.**

P16. **(GP) Prior to issuance of any grading permits, mitigation measures contained in the Mitigation Monitoring Program approved with this project shall be implemented as provided therein. A mitigation monitoring fee, as provided by City ordinance, shall be paid by the applicant within 30 days of project approval. No City permit or approval shall be issued until such fee is paid. (CEQA)**

P17. **(GP) Decorative pedestrian pathways across circulation aisles/paths shall be provided throughout the development to connect industrial buildings with parking and the public right-of-way. The pathways shall be shown on the precise grading plan. (GP Objective 46.8, DG)**

P18. **(GP) Prior to the issuance of building permits, the site plan shall show enhanced decorative paving for all driveway ingress/egress locations of the project.**

P19. **(GP) Prior to issuance of grading permits, the developer shall submit wall/fence plans to the Planning Division for review and approval as follows:**

- **A. A 3 foot high decorative wall, solid hedge or berm shall be placed in any setback areas between a public right of way and a parking lot for screening.**
- **B. Any proposed retaining walls shall also be decorative in nature, while the combination of retaining and other walls on top shall not exceed the height requirement.**
- **C. Proposed screening walls for truck loading areas and required loading docks shall also include decorative block walls with pilasters with a height up to fourteen (14) feet to fully screen trucks.**
- **D. Include solid decorative fencing for screening purposes with landscape within 100 feet of a public right of way, including areas adjacent to the existing channel subject to the approval by the Planning Official.**

PRIOR TO BUILDING PERMITS

P20. (BP) Prior to issuance of building permits, the Planning Division shall review and approve the location and method of enclosure or screening of transformer cabinets, commercial gas meters and back flow preventers as shown on the final working drawings. Location and screening shall comply with the following criteria: transformer cabinets and commercial gas meters shall not be located within required setbacks and shall be screened from public view either by architectural treatment or landscaping; multiple electrical meters shall be fully enclosed and incorporated into the overall architectural design of the building(s); back-flow preventers shall be screened by landscaping. (GP Objective 43.30, DG)

P21. (BP) Prior to issuance of building permits, screening details shall be addressed on plans for roof top equipment and trash enclosures submitted for Planning Division review and approval. All equipment shall be completely screened so as not to be visible from public view, and the screening shall be an integral part of the building. For trash enclosures, landscaping shall be included on at least three sides. The trash enclosure, including any roofing, shall be compatible with the architecture for the buildings. (GP Objective 43.6, DG)

P22. (BP) Prior to issuance of building permits, two copies of a detailed, on-site, computer generated, point-by-point comparison lighting plan, including exterior building, parking lot, and landscaping lighting, shall be submitted to the Planning Division for review and approval. The lighting plan shall be generated on the plot plan and shall be integrated with the final landscape plan. The plan shall indicate the manufacturer's specifications for light fixtures used and shall include style, illumination, location, height and method of shielding. The lighting shall be designed in such a manner so that it does not exceed 0.5 foot candles illumination beyond at the property line. The lighting level for all parking lots or structures shall be a minimum coverage of one foot-candle of light with a maximum of eight foot-candles. After the third plan check review for lighting plans, an additional plan check fee will apply. (MC 9.08.100, DG)

P23. (BP) Prior to issuance of building permits, the developer or developer's successor-in-interest shall pay all applicable impact fees, including but not limited to Transportation Uniform Mitigation fees (TUMF), Multi-species Habitat Conservation Plan (MSHCP) mitigation fees, and the City's adopted Development Impact Fees. (Ord)

P24. (BP) Prior to issuance of any building permits, final landscaping and irrigation plans shall be submitted for review and approved by the Planning Division. After the third plan check review for landscape plans, an additional plan check fee shall apply. The plans shall be prepared in accordance with the City's Landscape Standards and shall include:

A. **A three (3) foot high decorative wall, solid hedge or berm shall be placed in any setback areas between a public right of way and a parking lot for screening.**

B. **Finger and end planters with required step outs and curbing shall be provided every 12 parking stalls as well as at the terminus of each aisle.**

C. **Diamond planters shall be provided every 3 parking stalls.**

D. **Drought tolerant landscape shall be used. Sod shall be limited to gathering areas.**

E. **Street trees shall be provided every 40 feet on center in the right of way or as approved within conditions of approval below containing sight line distance requirements.**

F. **On-site trees shall be planted at an equivalent of one (1) tree per thirty (30) linear feet of the perimeter of a parking lot and per thirty linear feet of a building dimension for the portions of the building visible from a parking lot or right of way. Trees may be massed for pleasing aesthetic effects.**

G. **Enhanced landscaping shall be provided at all driveway entries and street corner locations**

H. **The review of all utility boxes, transformers etc. shall be coordinated to provide adequate screening from public view.**

I. **Landscaping on three sides of any trash enclosure.**

J. **All site perimeter and parking lot landscape and irrigation shall be installed prior to the release of certificate of any occupancy permits for the site or pad in question (master plot plan).**

P25. **Prior to the issuance of building permits, landscape and irrigation plans for areas maintained by the Owner's Association (water quality basins or areas) shall be submitted to the Planning Division. All landscape plans shall be approved prior to the release of any building permits for the site. The plans shall be prepared in accordance with the City's Landscape Development Guidelines. Landscaping is required for the sides and or slopes of all water quality basin and drainage areas, while a hydro seed mix with irrigation is acceptable for the bottom of any basin areas. All detention basins shall include trees, shrubs and groundcover up to the concreted portion of the basin. A solid decorative wall with pilasters, tubular steel fence with pilasters or other fence or wall approved by the Planning Official is required to secure all water quality and detention basins.**

P26. **(BP) Prior to the issuance of building permits, the master site plan shall include landscape for trash enclosures to include landscape on three sides, and final elevation plans for trash enclosures shall be provided that include**

decorative enhancements such as an enclosed roof and other decorative features that are consistent with the architecture of the proposed buildings on the site, subject to the approval of the Planning Division.

P27. (BP) Prior to the issuance of building permits, adjustments shall be made to Parcel 4 to include one required finger planter on the southern elevation of the site or other enhanced landscaping and diamond planters every 3 parking stalls along the channel on the northeast side of the site to the satisfaction of the Planning Official. In addition, vine pockets shall be provided adjacent to the proposed chain link fence and parking stalls adjacent to the channel on the northeast side of Parcel 4.

P28. (BP) Prior to the issuance of building permits, additional trees on all street sides of projects at the required one tree per 40 foot requirement on Iris Avenue, Heacock Street, Krameria Avenue and Cosmos Street shall be provided on the final landscape plans. Trees shall be placed in right of way locations where they are currently void on conceptual landscape plans (within sight line locations) at a larger spacing requirement, with remaining required trees provided in the setback area immediately adjacent to the right of way as approved by the Planning Division and Transportation Division of Public Works.

P29. (BP) Prior to the issuance of building permits, all cross-hatched areas on individual site plans not being used for access purposes shall include additional truck/trailer spaces where applicable as approved by the Planning Official.

P30. (BP) Prior to the issuance of building permits, all required bicycle racks shall be placed outside of fenced areas or a proportional mixture can occur inside and outside of fenced areas to the satisfaction of the Planning Official.

P31. (BP) Prior to the issuance of building permits, all buildings shall either include internal downspouts or external downspouts that are integrated into the architecture and painted to match the building, including those that are shown to be perpendicular to the right of way on Buildings 3 and 4 within view of public rights of way, subject to the approval of the Planning Official.

P32. (BP) Prior to the issuance of building permits, wiring for future trash compactors shall not be placed in required truck/trailer parking stalls.

PRIOR TO CERTIFICATE OF OCCUPANCY

P33. (CO) Prior to issuance of Certificates of Occupancy or building final, the required landscaping and irrigation shall be installed. (DC 9.03.040)

P34. (CO) Prior to the issuance of Certificates of Occupancy or building final, all required and proposed fences and walls shall be constructed according to the approved plans on file in the Planning Division. (MC 9.080.070).

P35. (BP/CO) Prior to issuance of Certificate of Occupancy or building final, installed landscaping and irrigation shall be inspected by the Planning Division. All on-site and common area landscaping shall be installed in accordance with the City's Landscape Standards and the approved project landscape plans and all site clean-up shall be completed. All site perimeter and parking lot landscape and irrigation shall be installed prior to the release of certificate of any occupancy permits for the site or pad in question (master plot plan).

P36. (CO) Prior to issuance of a certificate of occupancy or building final, the project shall install a photovoltaic array (solar panels) or other source of renewable energy generation on-site, or otherwise acquire energy from the local utility that has been generated by renewable resources, to meet the project's office electricity needs.

OTHER CONDITIONS NOT TIED TO GRADING, BUILDING OR OCCUPANCY

P37. Loading or unloading activities shall be conducted from the truck bays or designated loading areas only and shall not be allowed within the 300 foot buffer area established within the Industrial Area Specific Plan No. 208.

Mitigation Measures

P38. MM 4.2-1 Prior to grading permit issuance; the City shall verify that the following notes are included on the grading plan:

"The contractor shall utilize California Air Resources Board (CARB) Tier III certified equipment or better for all off-road diesel-powered construction equipment greater than 50 horsepower."

"Any emissions controls device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level

3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations, with the exception that afterburners are not required."

"During construction activity, truck idling shall be limited to five minutes or less."

"The contractor shall implement temporary traffic control during construction pursuant to the requirements of the California Manual on Uniform Traffic Control Devices."

"The contractor shall assure that mass grading shall be limited to no more than 6.5 acres per day. The contractor shall maintain a log of daily mass grading activities, which shall be provided to the City upon request."

P39. MM 4.2-2 Prior to issuance of each grading and building permit, the Project applicant or construction contractor shall prepare an exhibit for review by the City depicting the location of proposed equipment staging areas. The City shall review the proposed location(s) to ensure the staging areas are located at least 300-feet away from sensitive receptors and 1,105 feet from the northeastern corner of the Project site's property boundary as measured from the Iris Avenue right-of-way, as required by Mitigation Measure MM 4.10-1.

P40. MM 4.2-3 The Project applicant shall use "Zero-Volatile Organic Compounds" paints (no more than 150 grams of VOC per liter) and/or High Pressure Low Volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113. Alternatively, the applicant shall use building materials that do not require painting or are pre-painted. Painting products and materials compliant with these requirements shall be noted on building plans.

P41. MM 4.2-4 Prior to the issuance of each building permit, the City shall ensure that building plans require the placement of signs at truck access gates, loading docks, and truck parking areas to identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes; and 3) telephone numbers of the building facilities manager and the CARB to report violations.

P42. MM 4.2-5 Prior to the issuance of each building permit, the City shall review the parking lot striping and security gating plan to ensure the site design allows adequate truck stacking at gates to prevent queuing of trucks outside the facility.

P43. MM 4.2-6 Prior to the issuance of occupancy permits, the applicant shall provide evidence that a sign has been installed at each exit driveway, providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow.

P44. MM 4.2-7 Prior to the issuance of occupancy permits, the Project's property owner shall provide documentation to the Planning Division verifying that a provision is included in the building's lease agreement that informs tenants using a vehicle fleet older than 2007 about the availability of grant funding from available funding sources for truck retrofit and replacement.

P45. MM 4.2-8 Prior to the issuance of occupancy permits, the Project's property owner shall provide documentation to the Planning Division verifying that a provision is included in the building's lease agreement that informs tenants about the availability of alternatively fueled cargo handling equipment.

P46. MM 4.2-9 Prior to grading permit issuance, the City shall verify that the following notes are listed on the grading plan:

"Apply non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for ten days or more)."

"All trucks hauling dirt, sand, soil, or other loose materials shall be covered."

"Streets shall be swept at the end of each day if visible soil is carried onto adjacent paved public roads. Refer to SCAQMD Rule 1186.1, 'Less-Polluting Street Sweepers.' "

"The construction contractor shall monitor wind speed by use of an anemometer. The contractor shall suspend all excavating and grading operations when instantaneous wind speeds exceed 25 miles per hour."

P47. MM 4.2-10 Prior to the start of grading, the construction contractor shall post a sign at the property's frontage with Heacock Street and at the property's

frontage with Iris Avenue stating the name and phone number of an individual to be contacted to resolve dust complaints. These signs shall remain posted on the property until grading is complete.

P48. MM 4.3-1 Within 30 days prior to grading, a qualified biologist shall conduct a survey of the property and make a determination regarding the presence or absence of the burrowing owl. The determination shall be documented in a report and shall be submitted, reviewed, and accepted by the Planning Division of the Community & Economic Development Department prior to the issuance of a grading permit and subject to the following provisions:

a) In the event that the pre-construction survey identifies no burrowing owls on the property, a grading permit may be issued without restriction.

b) In the event that the pre-construction survey identifies the presence of three (3) or more mating pairs of burrowing owl, the grading permit shall not be issued and the requirements of MSCHP Species-Specific Conservation Objective 6 for the burrowing owl shall be followed. MSHCP Species-Specific Conservation Objective 6 for the burrowing owl prohibits the take of active nests and allows passive relocation to be conducted by a qualified biologist outside of the breeding season. Passive relocation shall include the required use of one-way doors to exclude owls from the site and the collapsing of burrows). Passive relocation shall follow CDFG relocation protocol and shall only occur between September 15 and February 1.

c) In the event that the pre-construction survey identifies the presence of at least one individual but less than three (3) mating pairs of burrowing owl, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities on the property, the qualified biologist shall passively relocate any burrowing owls, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows. Passive relocation shall follow CDFG relocation protocol and shall only occur between September 15 and February 1.

P49. MM 4.3-2 Prior to the issuance of any grading permits; the Planning Division shall review grading plans to ensure that the following note is included on the plans:

"No more than 30 days prior to commencement of ground-disturbing activities on site, a qualified biologist shall conduct pre-construction presence/absence surveys in accordance with the MSHCP Burrowing Owl Survey Instructions requirements and as required by MSHCP Objective 6 for the burrowing owl. If owls are determined to be present, grading shall not commence between February 1 and September 15. Between September 15 and February 1, grading may commence only after the qualified biologist has passively relocated the owls following CDFG protocol."

P50. MM 4.3-3 As a condition of approval for all grading permits, vegetation clearing and ground disturbance shall be prohibited during the migratory bird nesting season (February 1 through September 15), unless a migratory bird nesting survey is completed in accordance with the following requirements:

a) A nesting bird survey shall be conducted by a qualified biologist within three (3) days prior to initiating vegetation clearing or ground disturbance.

b) A copy of the nesting bird survey results report shall be provided to the City of Moreno Valley. If the results of the nesting bird survey identify the presence of active nests on the property, then the qualified biologist shall provide the City of Moreno Valley Planning Division with a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impact. The size and location of all buffer zones, if required, shall be subject to review and approval by the Planning Division and shall be no less than a 300-foot radius around the nest for migratory birds and a 500-foot radius around the nest for raptors. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist and City Planning Division verify that the nests are no longer occupied and the juvenile birds can survive independently from the nests.

P51. MM 4.3-4 Prior to the issuance of grading permits, and in accordance with the California Fish and Game (CDFG) Code, the Project shall obtain a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Game (CDFG) for impact to 0.06-acre of CDFG jurisdictional area in the

Perris Valley Storm Drain Channel. As part of the Agreement, the Project Applicant may acquire credits for the impact at a minimum 1:1 ratio from an approved in-lieu fee program or mitigation land bank.

P52. MM 4.3-5 Prior to the issuance of grading permits, and in accordance with the Clean Water Act, the Project shall obtain a Section 404 Permit from the U.S. Army Corps of Engineers (Corps) and a Section 401 Permit from the Regional Water Quality Control Board (RWQCB) for impact to 0.05-acre of Corps and RWQCB jurisdictional area in the Perris Valley Storm Drain Channel. As part of the Permits, the Project Applicant may acquire credits for the impact at a minimum 1:1 ratio from an approved in-lieu fee program or mitigation land bank

P53. MM 4.4-1 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a qualified professional archaeological monitor has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities and has the authority to halt and redirect earthmoving activities in the event that suspected archeological resources are unearthed during Project construction.

P54. MM 4.4-2 Prior to the issuance of a grading permit, the Applicant shall provide evidence to the City of Moreno Valley that appropriate Native American representative(s) shall be allowed to monitor and have received a minimum of 30 days advance notice of all mass grading and trenching activities. Prior to grading permit issuance, appropriate local Native American representative(s) shall be notified in writing by the Applicant of the pending grading activities. During grading and trenching operations, a professional archaeological monitor shall observe all mass grading and trenching activities. If the monitor suspects that an archaeological resource may have been unearthed, the monitor shall immediately halt and redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. If the monitor determines that the suspected resource is potentially significant, the archaeologist shall notify the appropriate Native American Tribe(s) and invite a tribal representative to consult on the resource evaluation. In consultation with the appropriate Native American Tribe(s), the archaeological monitor shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code

Section 21083.2. If the resource is significant, Mitigation Measure MM 4.4-3 shall apply.

P55. MM 4.4-3 If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be suspended 100 feet around the resource(s). The archaeological monitor and a representative of the appropriate Native American Tribe(s), the Project Applicant, and the City Planning Division shall confer regarding mitigation of the discovered resource(s). A treatment plan shall be prepared and implemented by the archaeologist to protect the identified archaeological resource(s) from damage and destruction. The landowner shall relinquish ownership of all archaeological artifacts that are of Native American origin found on the Project site to the culturally affiliated Native American tribe for proper treatment and disposition. A final report containing the significance and treatment findings shall be prepared by the archaeologist and submitted to the City Planning Division, the appropriate Native American tribe(s), and the Eastern Information Center.

P56. MM 4.4-4 Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan:

"If any suspected archaeological resources are discovered during ground-disturbing activities, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call a qualified archaeologist to the site to assess the significance of the find."

P57. MM 4.4-5 Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan:

"If any suspected paleontological resources are discovered during ground-disturbing activities, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call a qualified paleontologist to the site to assess the significance of the find. A qualified paleontologist shall evaluate the suspected resource. If the paleontologist determines that the find is not unique, construction shall be permitted to proceed. However, if the paleontologist determines that further information is needed to evaluate significance, the City of Moreno Valley shall be notified and a treatment plan shall be prepared and implemented in consultation with the City to protect the identified paleontological resource(s) from damage and destruction."

P58. MM 4.4-6 If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made by the Coroner. If the Riverside County Coroner determines the remains to be Native American, the California Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then immediately notify the "most likely descendants" of receiving notification of the discovery. The most likely descendants shall then make recommendations within 48 hours, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code §5097.98.

P59. MM 4.6-1 The Project's construction drawings shall be designed to achieve certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program. Prior to issuance of a building permit, the applicant shall provide a letter from a qualified LEED consultant verifying that proposed building design features are adequate to seek LEED certification. Following final building inspection, the Project applicant shall seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute.

P60. MM 4.6-2 Prior to the issuance of grading and building permits, the Planning Division and the Land Development Division shall review grading plans and building plans to ensure that the following notes are specified:

"With the exception of equipment used for asphalt paving, trenching, and off-site improvements, all diesel-powered construction equipment shall use B20 biodiesel fuel (comprising a minimum of 20% biodiesel) for the duration of construction activities. Any construction equipment whose warranty would be voided upon the use of B20 biodiesel fuel shall be exempt from this requirement. The Building and Safety Division may exempt additional pieces of equipment from this requirement upon written request from the Project applicant documenting a valid technical, economic, or physical reason why the use of B20 biodiesel fuel cannot be used. This requirement shall only apply if B20 biodiesel fuel is available within 15 roadway miles from the Project site at the time construction activities commence."

"During Project construction, existing electrical power sources (e.g., power poles) shall be provided for electric construction tools including saws, drills and compressors, to minimize the need for diesel or gasoline powered electric generators."

P61. **MM 4.6-3 Prior to the approval of building permits, the Planning Division shall review landscaping plans to ensure that the following components are included:**

a) Landscaping palette emphasizing drought tolerant plants; and

b) Use of water-efficient irrigation techniques.

P62. **MM 4.6-4 The Project's mechanical/electrical /plumbing (MEP) plans shall specify U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads (if showers are proposed). Prior to the approval of building permits, the Building and Safety Division shall review the plans to ensure that these features are specified, as appropriate.**

P63. **MM 4.6-5 Prior to the issuance of building permits, the Project applicant shall submit energy usage calculations to the Planning Division showing that the Project is designed to achieve 8% efficiency beyond the 2008 California Building Code Title 24 requirements. Example of measures that reduce energy consumption include, but are not limited to, the following (it being understood that the items listed below are not all required and merely present examples; the list is not all-inclusive and other features that reduce energy consumption also are acceptable):**

P64. **a) Increase in insulation such that heat transfer and thermal bridging is minimized;**

b) Limit air leakage through the structure and/or within the heating and cooling distribution system;

c) Use of energy-efficient space heating and cooling equipment;

d) Installation of electrical hook-ups at loading dock areas;

e) Installation of dual-paned or other energy efficient windows;

f) Use of interior and exterior energy efficient lighting that exceeds the 2008 California Title 24 Energy Efficiency performance standards;

g) Installation of automatic devices to turn off lights where they are not needed;

h) To the extent they are compatible with Moreno Valley Municipal Code §9.17.030, Landscape and Irrigation Design Standards, the incorporation of shade-producing trees, particularly those that shade buildings and paved surfaces such as streets and parking lots;

i) Application of a paint and surface color palette that emphasizes light and off-white colors that reflect heat away from buildings;

j) Design of buildings with "cool roofs" using products certified by the Cool Roof Rating Council, and/or exposed roof surfaces using light and off-white colors;

k) Design of buildings to accommodate photo-voltaic solar electricity systems or the installation of photo-voltaic solar electricity systems;

l) Installation of ENERGY STAR-qualified energy-efficient appliances, heating and cooling systems, office equipment, and/or lighting products; and/or

m) Other measures incorporated as part of the LEED Certification process.

P65. MM 4.6-6 Prior to the approval of street improvement plans, the Transportation Engineering Division shall ensure that all traffic lights installed as part of the Project will utilize Light Emitting Diodes.

P66. MM 4.6-7 The Project shall comply with the following requirements to reduce the generation of solid waste during construction and under long-term operating conditions:

a) Prior to the issuance of grading permits, a Waste Management Plan (WMP) addressing construction activity wastes shall be prepared by the Project Applicant and submitted to the Public Works Department and Building and Safety Division for review and approval. The WRP must conform to City requirements specified in Municipal Code Section 8.80.030, which requires that at least 50 percent of all construction and

demolition debris be reused, recycled, or otherwise diverted from disposal in a landfill. During grading and construction, the Project Applicant shall recycle and reuse the required percentage of materials, and keep records of the tonnage or other measurements approved by the City that can be converted to tonnage amounts. Prior to issuance of an occupancy permit, the Project Applicant shall provide evidence (i.e., receipts, weight tags, or other type of acceptable verifications) to the Public Works Department to demonstrate Project compliance with the approved WRP. Evidence must clearly identify the amount of waste disposed and materials recycled.

b) Recycling shall occur during Project operational activities in accordance with all applicable solid waste and recycling requirements of the City of Moreno Valley Public Works Department. Prior to the issuance of building permits, the Building and Safety Division shall review building plans to ensure that the locations and dimensions of recyclable collection enclosures and loading areas are specified on the building plans in conformance with City requirements and City Municipal Code Chapter 6.02 "Refuse Collection, Transfer and Disposal." Prior to the issuance of occupancy permits, the Land Development Division shall conduct a field inspection to ensure that the recyclable collection enclosures and loading areas are in place and ready for use

P67. MM 4.6-8 Prior to the issuance of building permits, the Planning Division shall review building plans to ensure that a minimum of two (2) parking spaces for each building will be reserved for carpools and vanpools. Prior to the issuance of occupancy permits, the Planning Division shall conduct a field inspection to ensure that a minimum of two (2) parking spaces for each building are marked as reserved for carpools and vanpools.

P68. MM 4.6-9 Prior to the issuance of building permits for Parcel 1, the Planning Division and Building and Safety Division shall review building plans to ensure that a minimum of two (2) electric vehicle charging stations will be provided. Prior to the issuance of occupancy permits for Parcel 1, the Planning Division and Building and Safety Division shall conduct a field

inspection to verify that the electric vehicle charging stations are in place and operable.

P69. MM 4.6-10 Prior to the issuance of occupancy permit, the Project's property owner shall provide documentation to the Planning Division verifying that a provision is included in the building's lease agreement which stipulates that tenants of the building shall encourage carpooling and transit ridership by on-site employees.

P70. MM 4.7-1 Prior to grading permit issuance, the City shall verify that the Project's Grading Plan indicates: a) the location of all groundwater monitoring wells to be preserved in place; b) the method used to flag, stake, or otherwise identify the location of the groundwater monitoring wells in the field; and c) any required grading procedures or precautions to be taken in the vicinity of the monitoring well locations.

P71. MM 4.7-2 Prior to the issuance of grading permits, the City of Moreno Valley Land Development Division shall ensure that the Project's required Stormwater Pollution Prevention Plan (SWPPP) includes emergency procedures for accidental hazardous materials releases during construction. The procedures shall include necessary personal protective equipment, spill containment procedures, and training of workers to respond to accidental spills/releases.

P72. MM 4.10-1 Prior to the issuance of any building or grading permits, the City of Moreno Valley Land Development division and Building and Safety Division shall review building and grading plans to ensure that the following notes are included:

a) All construction activities, including but not limited to haul truck deliveries, shall be limited to between the hours of 7:00 a.m. and 8:00 p.m.

b) Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.

c) All stationary construction equipment shall be placed in such a manner so that emitted noise is directed away from the construction site's north and east property boundaries.

d) Equipment staging shall be located at a minimum distance of 1,105 feet from the northeastern corner of the Project site's property boundary, as measured from the Iris Avenue right-of-way.

e) All haul truck deliveries shall be limited to approved haul routes. Should alternate routes be necessary, haul trucks shall not use roadways that pass noise-sensitive land uses or residential dwellings unless approved by the City of Moreno Valley.

P73. MM 4.10-2 Prior to the issuance of any building or grading permits, the Project applicant shall prepare a Construction Haul Route exhibit identifying all public and private roadways that will be used for haul truck deliveries. The Construction Haul Route exhibit shall explicitly prohibit the use of Iris Avenue. The Construction Haul Route exhibit shall be subject to review and approval by the Building and Safety Division. Once approved, copies of the Construction Haul Route exhibit shall be provided to all construction contractors, and all construction contractors shall ensure that haul truck deliveries utilize only City-approved haul routes. Should alternate routes be necessary, haul trucks shall not use roadways that pass noise-sensitive land uses or residential dwellings unless prior approval is granted by the City of Moreno Valley.

P74. MM 4.11-1 Prior to issuance of the Project's first occupancy permit, a traffic signal (programmed under the City of Moreno Valley DIF) shall be installed at the intersection of Heacock Street/Gentian Avenue.

P75. MM 4.11-2 Prior to issuance of the first occupancy permit, the following improvements shall be in place at the intersection of Heacock Street/Iris Avenue:

a) Traffic signal

b) Northbound: two through lanes

c) Northbound: one right turn lane

P76. MM 4.11-3 In the event that the City of Moreno Valley and/or the City of Perris establish a fair-share funding program(s) for improvements to any of the following intersections or immediately adjacent roadway segments that contribute to the intersection's level of service, then prior to the issuance of

building permits, the Project shall contribute a fair-share payment to the funding program to address the Project's cumulative impacts to the following facilities:

a) Intersection of Heacock Street/Cactus Avenue (Project's fair-share contribution is 6.4%);

b) Intersection of Indian Street/San Michele Road (Project's traffic contribution is 5.8%);

c) Intersection of Indian Street/Nandina Avenue (Project's traffic contribution is 7.5%);

d) Intersection of Indian Street/Harley Knox Blvd (Project's traffic contribution is 5.4%).

P77. MM 4.11-4 In the event that the City of Moreno Valley establishes a fair-share funding program for improvements to Indian Street between Iris Avenue and Gentian Avenue prior to the issuance of building permits, the Project shall contribute a fair-share payment to the City-established funding program to address the Project's cumulative impacts at General Plan buildout.

Building and Safety Division

B1. The above project shall comply with the current California Codes (CBC, CEC, CMC and the CPC) as well as city ordinances. All new projects shall provide a soils report as well. Plans shall be submitted to the Building Department as a separate submittal. The 2010 edition of the California Codes became effective for all permits issued after January 1, 2011.

B2. Prior to final inspection, all plans will be placed on a CD Rom for reference and verification. Plans will include "as built" plans, revisions and changes. The CD will also include Title 24 energy calculations, structural calculations and all other pertinent information. It will be the responsibility of the developer and or the building or property owner(s) to bear all costs required for this process. The CD will be presented to the Building and Safety Division for review prior to final inspection and building occupancy. The CD will become the property of the Moreno Valley Building and Safety Division at that time. In addition, a site plan showing the path of travel from public right of way and building to building access with elevations will be required.

B3. (BP) Prior to the issuance of a building permit, the applicant shall submit a properly completed "Waste Management Plan" (WMP), as required, to the Compliance Official (Building Official) as a portion of the building or demolition permit process.

SCHOOL DISTRICT

S1. (BP) Prior to issuance of building permits, the developer shall provide to the Community Development Director a written certification by the affected school district that either: (1) the project has complied with the fee or other exaction levied on the project by the governing board of the district, pursuant to Government Code Section 65996; or (2) the fee or other requirement does not apply to the project.

UNITED STATES POSTAL SERVICE

PO1. (BP) Prior to the issuance of building permits, the developer shall contact the U.S. Postal Service to determine the appropriate type and location of mailboxes.

POLICE DEPARTMENT

Note: All Special conditions are in bold lettering. All other conditions are standard to all or most development projects

Standard Conditions

PD1. Prior to the start of any construction, temporary security fencing shall be erected. The fencing shall be a minimum of six (6) feet high with locking, gated access and shall remain through the duration of construction. Security fencing is required if there is: construction, unsecured structures, unenclosed storage of materials and/or equipment, and/or the condition of the site constitutes a public hazard as determined by the Public Works Department. If security fencing is required, it shall remain in place until the project is completed or the above conditions no longer exist. (DC 9.08.080)

PD2. (GP) Prior to the issuance of grading permits, a temporary project identification sign shall be erected on the site in a secure and visible manner. The sign shall be conspicuously posted at the site and remain in place until occupancy of the project. The sign shall include the following:

a. The name (if applicable) and address of the development.

b. The developer's name, address, and a 24-hour emergency telephone number. (DC 9.08.080)

PD3. (CO) Prior to the issuance of a Certificate of Occupancy, an Emergency Contact information Form for the project shall be completed at the permit counter of the Community and Economic Development Department - Building Division for routing to the Police Department. (DC 9.08.080)

PD4. Addresses needs to be in plain view visible from the street and visible at night. It needs to have a backlight, so the address will reflect at night or a lighted address will be sufficient.

PD5. All exterior doors in the rear and the front of the buildings need an address or suite number on them.

PD6. All rear exterior doors should have an overhead low sodium light or a light comparable to the same.

PD7. The exterior of the building should have high-pressure sodium lights and or Metal halide lights installed and strategically placed throughout the exterior of the building. The parking lots should have adequate lighting to insure a safe environment for customers and or employees.

PD8. All landscape cover should not exceed over 3' from the ground in the parking lot.

PD9. Bushes that are near the exterior of the building should not exceed 4' and should not be planted directly in front of the buildings or walkways.

PD10. Trees, which exceed 20', should have a 7' visibility from the ground to the bottom half of the tree. This is so that patrons or employees can view the whole parking lot while parking their vehicles in the parking lot.

PD11. Window coverings shall comply with the city ordinance.

PD12. No loitering signs shall be posted in plain view throughout the building.

PD13. A monument address is to be located in front of the main entrance.

PD14. Landscape screening is to be located no closer than six feet from the covered parking spaces.

PD15. Sufficient lighting is to be provided over all mailbox areas.

CITY OF MORENO VALLEY
CONDITIONS
Case No: PA11-0001 TO PA11-007, P11-004 AND 005
APN: 316-020-001, 006, 007, 028, 010
DATE: 10/08/12

FIRE PREVENTION BUREAU

1. **Still pending the completion of attached fire flow letter, the fire flow letter provided was not for the parcel fronting this project, but for the parcel adjacent to it. Fire flow shall be taken from the street that it fronts. Fire flow letter and improvements shall be completed prior to grading permit approval.**
2. **The following Standard Conditions shall apply.**

With respect to the conditions of approval, the following fire protection measures shall be provided in accordance with Moreno Valley City Ordinances and/or recognized fire protection standards:

F1. Final fire and life safety conditions will be addressed when the Fire Prevention Bureau reviews building plans. These conditions will be based on occupancy, use, California Building Code (CBC), California Fire Code (CFC), and related codes, which are in force at the time of building plan submittal.

F2. The Fire Prevention Bureau is required to set a minimum fire flow for the remodel or construction of all commercial buildings per CFC Appendix B and Table B105.1. The applicant/developer shall provide documentation to show there exists a water system capable of delivering ___4000_ GPM for__4_ hour(s) duration at 20-PSI residual operating pressure. The required fire flow may be adjusted during the approval process to reflect changes in design, construction type, or automatic fire protection measures as approved by the Fire Prevention Bureau. Specific requirements for the project will be determined at time of submittal. (CFC 508.3, Appendix B and MVMC 8.36.100 Section D) . **The 50% reduction in fire flow was granted for the use of fire sprinklers throughout the facility. The reduction shall only apply to fire flow, hydrant spacing shall be per the fire flow requirements listed in CFC Appendix B and C.**

F3. Industrial, Commercial, Multi-family, Apartment, Condominium, Townhouse or Mobile Home Parks. A combination of on-site and off-site super fire hydrants (6" x 4" x 2 ½" x 2 ½") and super enhanced fire hydrants (6" x 4" x 4" x 2 ½") shall not be closer than 40 feet and more than 150 feet from any portion of the building as measured along approved emergency vehicular travel ways. The required fire flow shall be available from any adjacent fire hydrant(s) in the system. Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, super or enhanced fire hydrants as determined by the fire code official shall be provided at spacing not to exceed 500 feet of frontage for transportation hazards. (CFC 508.5.7 & MVMC 8.36.050 Section O and 8.36.100 Section E)

F4. Maximum cul-de-sac or dead end road length shall not exceed 660 feet. The Fire Chief, based on City street standards, shall determine minimum turning radius for fire apparatus based upon fire apparatus manufacture specifications. (CFC 503.1)

F5. During phased construction, dead end roadways and streets which have not been completed shall have a turn-around capable of accommodating fire apparatus. (CFC 503.1 and 503.2.5)

F6. Prior to issuance of Building Permits, the applicant/developer shall provide the Fire Prevention Bureau with an approved site plan for Fire Lanes and signage. (MVMC 8.36.050 and CFC 501.3)

F7. Prior to construction and issuance of building permits, all locations where structures are to be built shall have an approved Fire Department emergency vehicular access road (all weather surface) capable of sustaining an imposed load of 80,000 lbs. GVW, based on street standards approved by the Public Works Director and the Fire Prevention Bureau. (CFC 501.4 and MVMC 8.36.050 Section A)

F8. Prior to construction and issuance of Building Permits, fire lanes and fire apparatus access roads shall have an unobstructed width of not less than twenty–four (24) or thirty (30) feet as approved by the Fire Prevention Bureau and an unobstructed vertical clearance of not less the thirteen (13) feet six (6) inches. (CFC 503.2.1.1 and MVMC 8.36.050)

F9. Prior to construction, all roads, driveways and private roads shall not exceed 12 percent grade. (CFC 503.2.7 and MVMC 8.36.050)

F10. If construction is phased, each phase shall provide an approved emergency vehicular access way for fire protection prior to any building construction. (CFC 501.4 and MVMC 8.36.050 Section A)

F11. Prior to construction, all locations where structures are to be built shall have an approved Fire Department access based on street standards approved by the Public Works Director and the Fire Prevention Bureau. (CFC 501.3 and MVMC 8.36.050)

F12. Prior to building construction, dead end roadways and streets which have not been completed shall have a turnaround capable of accommodating fire apparatus. (CFC 503.2.5 and MVMC 8.36.050)

F13. Prior to issuance of Building Permits, the applicant/developer shall participate in the Fire Impact Mitigation Program. (Fee Resolution as adopted by City Council)

F14. Prior to issuance of Building Permits, the applicant/developer shall furnish one copy of the water system plans to the Fire Prevention Bureau for review. Plans shall:

a) Be signed by a registered civil engineer or a certified fire protection engineer;

b) Contain a Fire Prevention Bureau approval signature block; and
c) Conform to hydrant type, location, spacing of new and existing hydrants and minimum fire flow required as determined by the Fire Prevention Bureau.

After the local water company signs the plans, the originals shall be presented to the Fire Prevention Bureau for signatures. The required water system, including fire hydrants, shall be installed, made serviceable, and be accepted by the Moreno Valley Fire Department prior to beginning construction. They shall be maintained accessible.

Existing fire hydrants on public streets are allowed to be considered available. Existing fire hydrants on adjacent properties shall not be considered available unless fire apparatus access roads extend between properties and easements are established to prevent obstruction of such roads. (CFC 508.1 and MVMC 8.36.100)

F15. Prior to issuance of Certificate of Occupancy or Building Final, "Blue Reflective Markers" shall be installed to identify fire hydrant locations in accordance with City specifications. (CFC 510.1)

F16. Prior to issuance of Certificate of Occupancy or Building Final, all commercial buildings shall display street numbers in a prominent location on the street side and rear access locations. The numerals shall be a minimum of twelve (12) inches in height for buildings and six (6) inches in height for suite identification on a contrasting background. Unobstructed lighting of the address(s) shall be by means approved by the Fire Prevention Bureau and Police Department. In multiple suite centers (strip malls), businesses shall post the name of the business on the rear door(s). (CFC 505.1)

F17. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire sprinkler system based on square footage and type of construction, occupancy or use. Fire sprinkler plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9)

F18. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire alarm system monitored by an approved Underwriters Laboratory listed central station based on a requirement for monitoring the sprinkler system, occupancy or use. Fire alarm panel shall be accessible from exterior of building in an approved location. Plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9 and MVMC 8.36.070)

F19. Prior to issuance of a Certificate of Occupancy or Building Final, a "Knox Box Rapid Entry System" shall be provided. The Knox-Box shall be installed in an accessible location approved by the Fire Chief. The Knox-Box shall be supervised by the alarm system and all exterior security emergency access gates shall be electronically operated and be provided with Knox key switches for access by emergency personnel. (CFC 506.1)

F20. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall be responsible for obtaining underground and/or above ground tank permits for the storage of combustible liquids, flammable liquids, or any other hazardous materials from both the County of Riverside Community Health Agency Department of Environmental Health and the Fire Prevention Bureau. (CFC 3401.4 and 2701.5)

F21. Prior to issuance of Certificate of Occupancy, approval shall be required from the County of Riverside Community Health Agency (Department of Environmental Health) and Moreno Valley Fire Prevention Bureau to maintain, store, use, handle materials, or conduct processes which produce conditions hazardous to life or property, and to install equipment used in connection with such activities. (CFC 2701.5)

F22. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer must submit a simple plot plan, a simple floor plan, and other plans as requested, each as an electronic file in .dwg format, to the Fire Prevention Bureau. Alternate file formats may be acceptable with approval by the Fire Chief.

F23. The angle of approach and departure for any means of Fire Department access shall not exceed 1 ft drop in 20 ft (0.3 m drop in 6 m), and the design limitations of the fire apparatus of the Fire Department shall be subject to approval by the AHJ. (CFC 503.2.7 and MVMC 8.36.050 Section I)

F24. Prior to issuance of the building permit for development, independent paved access to the nearest paved road, maintained by the City shall be designed and constructed by the developer within the public right of way in accordance with City Standards. (MVMC 8.36.050)

F25. Prior to construction, "private" driveways over 150 feet in length shall have a turn-around as determined by the Fire Prevention Bureau capable of accommodating fire apparatus. Driveway grades shall not exceed 12 percent. (CFC 503 and MVMC 8.36.050)

F26. Complete plans and specifications for fire alarm systems, fire-extinguishing systems (including automatic sprinklers or standpipe systems), clean agent systems (or other special types of automatic fire-extinguishing systems), as well as other fire-protection systems and appurtenances thereto shall be submitted to the Moreno Valley Fire Prevention Bureau for review and approval prior to system installation. Submittals shall be in accordance with CFC Chapter 9 and associated accepted national standards.

F27. A permit is required to maintain, store, use or handle materials, or to conduct processes which produce conditions hazardous to life or property, or to install equipment used in connection with such activities. Such permits shall not be construed as authority to violate, cancel or set aside any of the provisions of this code. Such permit shall not take the place of any license required by law. Applications for permits shall be made to the Fire Prevention Bureau in such form and detail as prescribed by the Bureau. Applications for permits shall be accompanied by such plans as required by the Bureau. Permits shall be kept on

the premises designated therein at all times and shall be posted in a conspicuous location on the premises or shall be kept on the premises in a location designated by the Fire Chief. Permits shall be subject to inspection at all times by an officer of the fire department or other persons authorized by the Fire Chief in accordance with Appendix Chapter 1 and MVMC 8.36.100.

F28. Approval of the safety precautions required for buildings being constructed, altered or demolished shall be required by the Fire Chief in addition to other approvals required for specific operations or processes associated with such construction, alteration or demolition. (CFC Chapter 14 & CBC Chapter 33)

F29. Prior to issuance of Certificate of Occupancy, permits are required to store, dispense, use or handle hazardous material. Each application for a permit shall include a hazardous materials management plan (HMMP). The location of the HMMP shall be posted adjacent to (other) permits when an HMMP is provided. The HMMP shall include a facility site plan designating the following:

a) Storage and use areas;
b) Maximum amount of each material stored or used in each area;
c) Range of container sizes;
d) Locations of emergency isolation and mitigation valves and devises;
e) Product conveying piping containing liquids or gases, other than utility-owned fuel gas lines and low-pressure fuel gas lines;
f) On and off positions of valves for valves which are of the self-indicating type;
g) Storage plan showing the intended storage arrangement, including the location and dimensions of aisles. The plans shall be legible and approximately to scale. Separate distribution systems are allowed to be shown on separate pages; and
h) Site plan showing all adjacent/neighboring structures and use.

NOTE: Each application for a permit shall include a hazardous materials inventory statement (HMIS).

F30. Before a Hazardous Materials permit is issued, the Fire Chief shall inspect and approve the receptacles, vehicles, buildings, devices, premises, storage spaces or areas to be used. In instances where laws or regulations are enforceable by departments other than the Fire Prevention Bureau, joint approval shall be obtained from all departments concerned. (CFC Appendix H)

F31. Construction or work for which the Fire Prevention Bureau's approval is required shall be subject to inspection by the Fire Chief and such construction or work shall remain accessible and exposed for inspection purposes until approved. (CFC Section 106)

F32. The Fire Prevention Bureau shall maintain the authority to inspect, as often as necessary, buildings and premises, including such other hazards or appliances designated by the Fire Chief for the purpose of ascertaining and causing to be corrected any conditions which would reasonably tend to cause fire or contribute to its spread, or any violation of the purpose or provisions of this code and of any other law or standard affecting fire safety. (CFC Section 106)

F33. Permit requirements issued, which designate specific occupancy requirements

for a particular dwelling, occupancy, or use, shall remain in effect until such time as amended by the Fire Chief. (CFC Section 104)

F34. In accordance with the California Fire Code Appendix Chapter 1, where no applicable standards or requirements are set forth in this code, or contained within other laws, codes, regulations, ordinances or bylaws adopted by the jurisdiction, compliance with applicable standards of the National Fire Protection Association or other nationally recognized fire safety standards as are approved shall be deemed as prima facie evidence of compliance with the intent of this code as approved by the Fire Chief. (CFC Section 102.7)

F35. Any alterations, demolitions, or change in design, occupancy and use of buildings or site will require plan submittal to the Fire Prevention Bureau with review and approval prior to installation. (CFC Appendix Chapter 1)

F36. Emergency and Fire Protection Plans shall be provided when required by the Fire Prevention Bureau. (CFC Section 105)

F37. Prior to Certificate of Occupancy all locations where medians are constructed and prohibit vehicular ingress/egress into or away from the site, provisions must be made to construct a median-crossover at all locations determined by the Fire Marshal and the City Engineer. Prior to the construction, design plans will be submitted for review and approval by the City Engineer and all applicable inspections conducted by Land Development Division.

F38. Prior to construction, all traffic calming designs/devices must be approved by the Fire Marshal and City Engineer.

Date:	10/08/12	**Address:**	
Case Number:	**PA11-0001 TO PA11-007, P11-004 AND 005**	**A.P.N.:**	**316-020-001, 006, 007, 028, 010**

This is certification the water system is capable of meeting the following required fire flows as determined by the California Fire Code Appendix B.

Based on the information provided on the above referenced case. The fire flow required for this project will be ___4000_ G.P.M. for duration of _4_-HOURS measured at 20-psi residual pressure.

The required fire flow may be adjusted during the approval process to reflect changes in design, construction type or automatic fire protection measures as approved by the Fire Prevention Bureau.

Applicant/ Developer: _____

By: _____ **Date:** _____

Title: _____

WATER AGENCY APPROVAL

Name of Agency: _____

Address: _____

Telephone: _____ **Date:** _____

By: _____ **Title:** _____

NOTE: **THE COMPLETION AND SUBMITTAL OF THIS LETTER TO THE FIRE PREVENTION BUREAU SHALL NOT BE CONSTRUED AS APPROVAL FOR THE INSTALLATION OF THE REQUIRED FIRE HYDRANT (S) AND/OR WATER SYSTEM.**

CITY OF MORENO VALLEY
COMMUNITY & ECONOMIC DEVELOPMENT - LAND DEVELOPMENT DIVISION
CONDITIONS OF APPROVAL
PA11-0007 / TPM 35879 – Four Parcel Industrial Warehouse Subdivision
APN 316-020-032, 316-020-033, 316-020-034, 316-020-035, 316-020-036

Note: All Special Conditions are in **Bold** lettering and follow the standard conditions.

COMMUNITY & ECONOMIC DEVELOPMENT – LAND DEVELOPMENT DIVISION

The following are the Community & Economic Development Department – Land Development Division Conditions of Approval for this project and shall be completed at no cost to any government agency. All questions regarding the intent of the following conditions shall be referred to the Community & Economic Development Department – Land Development Division.

General Conditions

LD1. (G) The developer shall comply with all applicable City ordinances and resolutions including the City's Municipal Code (MC) and if subdividing land, the Government Code (GC) of the State of California, specifically Sections 66410 through 66499.58, said sections also referred to as the Subdivision Map Act (SMA). (MC 9.14.010)

LD2. (G) If the project involves the subdivision of land, maps may be developed in phases with the approval of the City Engineer. Financial security shall be provided for all improvements associated with each phase of the map. The boundaries of any multiple map increment shall be subject to the approval of the City Engineer. The City Engineer may require the dedication and construction of necessary utilities, streets or other improvements outside the area of any particular map, if the improvements are needed for circulation, parking, access, or for the welfare or safety of the public. (MC 9.14.080, GC 66412 and 66462.5)

LD3. (G) It is understood that the tentative map correctly shows all existing easements, traveled ways, and drainage courses, and that their omission may require the map or plans associated with this application to be resubmitted for further consideration. (MC 9.14.040)

LD4. (G) In the event right-of-way or offsite easements are required to construct offsite improvements necessary for the orderly development of the surrounding area to meet the public health and safety needs, the developer shall make a good faith effort to acquire the needed right-of-way in accordance with the Land Development Division's administrative policy. In the event that the developer is unsuccessful, he shall enter into an agreement with the City to acquire the necessary right-of-way or offsite easements and complete the improvements at such time the City acquires the right-of-way or offsite easements which will permit the improvements to be made. The developer shall be responsible for all costs associated with the right-of-way or easement acquisition. (GC 66462.5)

LD5. (G) If improvements associated with this project are not initiated within two years of the date of approval of the Public Improvement Agreement, the City Engineer may require that the improvement cost estimate associated with the project be modified to reflect current City construction costs in effect at the time of request for an extension of time for the Public Improvement Agreement or issuance of a permit.

LD6. (G) The developer shall monitor, supervise and control all construction and construction supportive activities, so as to prevent these activities from causing a public nuisance, including but not limited to, insuring strict adherence to the following:

a. Removal of dirt, debris, or other construction material deposited on any public street no later than the end of each working day.

b. Observance of working hours as stipulated on permits issued by the Public Works Department.

c. The construction site shall accommodate the parking of all motor vehicles used by persons working at or providing deliveries to the site.

d. All dust control measures per South Coast Air Quality Management District (SCAQMD) requirements shall be adhered to during the grading operations.

Violation of any condition or restriction or prohibition set forth in these conditions shall subject the owner, applicant, developer or contractor(s) to remedies as noted in the City Municipal Code 8.14.090. In addition, the City Engineer or Building Official may suspend all construction related activities for violation of any condition, restriction or prohibition set forth in these conditions until such time as it has been determined that all operations and activities are in conformance with these conditions.

LD7. (G) The developer shall protect downstream properties from damage caused by alteration of drainage patterns, i.e., concentration or diversion of flow. Protection shall be provided by constructing adequate drainage facilities, including, but not limited to, modifying existing facilities or by securing a drainage easement. (MC 9.14.110)

LD8. (G) Public drainage easements, when required, shall be a minimum of 25 feet wide and shall be shown on the map and plan, and noted as follows: “Drainage Easement – no structures, obstructions, or encroachments by land fills are allowed.” In addition, the grade within the easement area shall not exceed a 3:1 (H:V) slope, unless approved by the City Engineer.

LD9. (G) A detailed drainage study shall be submitted to the City Engineer for review and approval at the time of any improvement or grading plan submittal. The study shall be prepared by a registered civil engineer and shall include existing and proposed hydrologic conditions. Hydraulic calculations are required for all drainage control devices and storm drain lines. (MC 9.14.110). Prior to approval of the related improvement or grading plans, the developer shall submit the

approved drainage study, on compact disk, in (.pdf) digital format to the Land Development Division of the Community and Economic Development Department.

LD10. (G) Prior to final map approval, commencing applicable street improvements, or obtaining the first building permit, the developer shall enter into a Development Impact Fee (DIF) Improvement Credit Agreement to secure credit and reimbursement for the construction of applicable arterial street, traffic signal, and/or interchange improvements. If the developer fails to complete this agreement prior to the timing as specified above, no credits or reimbursements will be given. The applicant shall pay Arterial Streets, Traffic Signals, and Interchange Improvements development impact fees adopted by the City Council by resolution. (Ord. 695 § 1.1 (part), 2005) (MC 3.38.030, .040, .050)

LD11. (G) Prior to final map approval, commencing applicable street improvements, or obtaining the first building permit, the developer shall enter into a Transportation Uniform Mitigation Fee (TUMF) Improvement Credit Agreement to secure credit and reimbursement for the construction of applicable improvements. If the developer fails to complete this agreement by the timing as specified above, no credits or reimbursements will be given for any work. Prior to approval of the TUMF Improvement Credit Agreement, an approved engineer's cost estimate and street improvement plan are required.

LD12. (G) The final conditions of approval issued by the Planning Division subsequent to Planning Commission approval shall be photographically or electronically placed on mylar sheets and included in the Grading and Street Improvement plan sets on twenty-four (24) inch by thirty-six (36) inch mylar and submitted with the plans for plan check. These conditions of approval shall become part of these plan sets and the approved plans shall be available in the field during grading and construction.

Prior to Grading Plan Approval or Grading Permit

LD13. (GPA) Prior to approval of the grading plans, plans shall be drawn on twenty-four (24) inch by thirty-six (36) inch mylar and signed by a registered civil engineer and other registered/licensed professional as required.

LD14. (GPA) Prior to approval of grading plans, the developer shall ensure compliance with the City Grading ordinance, these Conditions of Approval and the following criteria:

a. The project street and lot grading shall be designed in a manner that perpetuates the existing natural drainage patterns with respect to tributary drainage area and outlet points. Unless otherwise approved by the City Engineer, lot lines shall be located at the top of slopes.

b. Any grading that creates cut or fill slopes adjacent to the street shall provide erosion control, sight distance control, and slope easements as approved by the City Engineer.

c. A grading permit shall be obtained from the Community and Economic Development Department Land Development Division prior to commencement of any grading outside of the City maintained road right-of-way.

d. All improvement plans are substantially complete and appropriate clearance and at-risk letters are provided to the City. (MC 9.14.030)

e. The developer shall submit a soils and geologic report to the Community and Economic Development Department – Land Development Division. The report shall address the soil's stability and geological conditions of the site.

LD15. (GPA) Prior to grading plan approval, the developer shall select and implement treatment control best management practices (BMPs) that are medium to highly effective for treating Pollutants of Concern (POC) for the project. Projects where National Pollution Discharge Elimination System (NPDES) mandates water quality treatment control best management practices (BMPs) shall be designed per the City of Moreno Valley guidelines or as approved by the City Engineer.

LD16. (GPA) Prior to approval of the grading plans for projects that will result in discharges of storm water associated with construction with a soil disturbance of one or more acres of land, the developer shall submit a Notice of Intent (NOI) and obtain a Waste Discharger's Identification number (WDID#) from the State Water Quality Control Board (SWQCB). The WDID# shall be noted on the grading plans prior to issuance of the first grading permit.

LD17. (GPA) Prior to the grading plan approval, or issuance of a building permit, if a grading permit is not required, the Developer shall submit two (2) copies of the final project-specific Water Quality Management Plan (WQMP) for review by the City Engineer that :

a. Addresses Site Design Best Management Practices (BMPs) such as minimizing impervious areas, maximizing permeability, minimizes directly connected impervious areas to the City's street and storm drain systems, and conserves natural areas;

b. Incorporates Source Control BMPs and provides a detailed description of their implementation;

c. Incorporates Treatment Control BMPs and provides information regarding design considerations;

d. Describes the long-term operation and maintenance requirements for BMPs requiring maintenance; and

e. Describes the mechanism for funding the long-term operation and maintenance of the BMPs.

A copy of the final WQMP template can be obtained on the City's Website or by contacting the Land Development Division of the Community and Economic Development Department.

LD18. (GPA) Prior to the grading plan approval, or issuance of a building permit, if a grading permit is not required, the Developer shall record a "Stormwater Treatment Device and Control Measure Access and Maintenance Covenant," to provide public notice of the requirement to implement the approved final project-specific WQMP and the maintenance requirements associated with the WQMP.

A boilerplate copy of the "Stormwater Treatment Device and Control Measure Access and Maintenance Covenant," can be obtained by contacting the Land Development Division of the Community and Economic Development Department.

LD19. (GPA) Prior to the grading plan approval, or issuance of a building permit, if a grading permit is not required, the Developer shall secure approval of the final project-specific WQMP from the City Engineer. The final project-specific WQMP shall be submitted at the same time of grading plan submittal. The approved final WQMP shall be submitted to the Storm Water Program Manager on compact disk(s) in Microsoft Word format prior to grading plan approval.

LD20. (GPA) Prior to the grading plan approval, or issuance of a building permit as determined by the City Engineer, the approved final project-specific WQMP shall be incorporated by reference or attached to the project's Storm Water Pollution Prevention Plan as the Post-Construction Management Plan.

LD21. (GPA) Prior to grading plan approval, the developer shall prepare a Storm Water Pollution Prevention Plan (SWPPP) in conformance with the state's Construction Activities Storm Water General Permit. A copy of the current SWPPP shall be kept at the project site and be available for review upon request. The SWPPP shall be submitted to the Storm Water Program Manager on compact disk(s) in Microsoft Word format.

LD22. (GPA) Prior to the approval of a grading plan, the developer shall comply with the rules and regulations of FEMA and City Ordinance 8.12.190 for development within a flood hazard area (defined as Zones A, AE, AH, A0 and A99).

a. For developments less required to submit a CLOMR-F/LOMR-F, the City requires the following prepared by a licensed civil engineer or land surveyor:

i. Prior to issuance of a grading permit, a Floodplain Development Permit (available from the City).
ii. A CLOMR-F (residential structures) unless otherwise approved by the City Engineer.
iii. Determination of BFE. Machinery and equipment servicing the structures shall be designed to be located above the BFE. For habitable structures, the lowest floor must be certified to be a minimum of one foot above the BFE; non-residential structures must be additionally dry floodproofed; for qualified non-habitable structures, the lowest floor must be wet floodproofed to one foot minimum above BFE.
iv. Prior to issuance of individual building permits, an elevation certificate shall be approved by the City.

v. Prior to issuance of first building permit for residential structures, submittal of LOMR-F package with appropriate fees to FEMA, unless otherwise approved by the City Engineer.
vi. Prior to issuance of individual certificate of occupancy, a final elevation/floodproof certificate (dependent on type of structure(s)).
vii. Prior to ninety percent reduction of public improvement securities, a LOMR-F approved by FEMA shall be submitted to the City.

LD23. (GPA) Prior to the approval of the grading plans, the developer shall pay applicable remaining grading plan check fees.

LD24. (GPA/MA) Prior to the later of either grading plan or final map approval, resolution of all drainage issues shall be as approved by the City Engineer.

LD25. (GP) Prior to issuance of a grading permit, or building permit when a grading permit is not required, for projects that require a project-specific Water Quality Management Plan (WQMP), a project-specific final WQMP (F-WQMP) shall be approved. Upon approval, a WQMP Identification Number is issued by the Storm Water Management Section and shall be noted on the rough grading plans as confirmation that a project-specific F-WQMP approval has been obtained.

LD26. (GP) Prior to issuance of a grading permit, if the fee has not already been paid prior to map approval or prior to issuance of a building permit if a grading permit is not required, the developer shall pay Area Drainage Plan (ADP) fees. The developer shall provide a receipt to the City showing that ADP fees have been paid to Riverside County Flood Control and Water Conservation District. (MC 9.14.100)

LD27. (GP) Prior to issuance of a grading permit, security, in the form of a cash deposit (preferable), letter of credit, or performance bond shall be required to be submitted as a guarantee of the completion of the grading required as a condition of approval of the project.

LD28. (GP) Prior to issuance of a grading permit, the developer shall pay the applicable grading inspection fees.

Prior to Map Approval or Recordation

LD29. (MA) Prior to approval of the map, the developer shall submit a copy of the Covenants, Conditions and Restrictions (CC&Rs) to the Land Development Division for review and approval. The CC&Rs shall include, but not be limited to, access easements, reciprocal access, private and/or public utility easements as may be relevant to the project.

LD30. (MA) Prior to approval of the map, all street dedications shall be irrevocably offered to the public and shall continue in force until the City accepts or abandons such offers, unless otherwise approved by the City Engineer. All dedications shall be free of all encumbrances as approved by the City Engineer.

LD31. (MA) Prior to approval of the map, security shall be required to be submitted as a guarantee of the completion of the improvements required as a condition of approval of the project. A public improvement agreement will be required to be executed.

LD32. (MR) Prior to recordation of the map, if the developer chooses to construct the project in construction phases, a Construction Phasing Plan for the construction of on-site public and private improvements shall be reviewed and approved by the City Engineer.

LD33. (MR) Prior to recordation of the map, the developer shall submit the map, on compact disks, in (.dxf) digital format to the Land Development Division of the Community and Economic Development Department.

Prior to Improvement Plan Approval or Construction Permit

LD34. (IPA) Prior to approval of the improvement plans, the improvement plans shall be drawn on twenty-four (24) inch by thirty-six (36) inch mylar and signed by a registered civil engineer and other registered/licensed professional as required.

LD35. (IPA) Prior to approval of the improvement plans, the developer shall submit clearances from all applicable agencies, and pay all outstanding plan check fees. (MC 9.14.210)

LD36. (IPA) All public improvement plans prepared and signed by a registered civil engineer in accordance with City standards, policies and requirements shall be approved by the City Engineer in order for the Public Improvement Agreement and accompanying security to be executed.

LD37. (IPA) Prior to approval of the improvement plans, securities and a public improvement agreement shall be required to be submitted and executed as a guarantee of the completion of the improvements required as a condition of approval of the project.

LD38. (IPA) The street improvement plans shall comply with all applicable City standards and the following design standards throughout this project:

a. Corner cutbacks in conformance with City Standard 208 shall be shown on the final map or, if no map is to be recorded, offered for dedication by separate instrument.

b. Lot access to major thoroughfares shall be restricted except at intersections and approved entrances and shall be so noted on the final map. (MC 9.14.100)

c. The minimum centerline and flow line grades shall be one percent unless otherwise approved by the City Engineer. (MC 9.14.020)

d. All street intersections shall be at ninety (90) degrees plus or minus five (5) degrees per City Standard No. 706A, or as approved by the City Engineer. (MC 9.14.020)

LD39. (IPA) Prior to approval of the improvement plans, the plans shall be based upon a centerline profile, extending beyond the project boundaries a minimum distance of 300 feet at a grade and alignment approved by the City Engineer. Design plan and profile information shall include the minimum 300 feet beyond the project boundaries.

LD40. (IPA) Prior to approval of the improvement plans, the plans shall indicate any restrictions on trench repair pavement cuts to reflect the City's moratorium on disturbing newly-constructed pavement less than three years old and recently slurry sealed streets less than one year old. Pavement cuts for trench repairs may be allowed for emergency repairs or as specifically approved in writing by the City Engineer.

LD41. (IPA) Prior to approval of the improvement plans, the developer is required to bring any existing access ramps adjacent to and fronting the project to current ADA (Americans with Disabilities Act) requirements. However, when work is required in an intersection that involves or impacts existing access ramps, those access ramps in that intersection shall be retrofitted to comply with current ADA requirements, unless approved otherwise by the City Engineer.

LD42. (IPA) Prior to approval of the improvement plans, drainage facilities with sump conditions shall be designed to convey the tributary 100-year storm flows. Secondary emergency escape shall also be provided. (MC 9.14.110)

LD43. (IPA) Prior to the approval of the improvement plans, the hydrology study shall show that the 10-year storm flow will be contained within the curb and the 100-year storm flow shall be contained within the street right-of-way. In addition, one lane in each direction shall not be used to carry surface flows during any storm event for street sections equal to or larger than a minor arterial. When any of these criteria is exceeded, additional drainage facilities shall be installed. (MC 9.14.110 A.2)

LD44. (IPA) The project shall be designed to accept and properly convey all off-site drainage flowing onto or through the site. All storm drain design and improvements shall be subject to review and approval of the City Engineer. In the event that the City Engineer permits the use of streets for drainage purposes, the provisions of the Development Code will apply. Should the quantities exceed the street capacity or the use of streets be prohibited for drainage purposes, as in the case where one travel lane in each direction shall not be used for drainage conveyance for emergency vehicle access on streets classified as minor arterials and greater, the developer shall provide adequate facilities as approved by the Community and Economic Development Department – Land Development Division. (MC 9.14.110)

LD45. (CP) All work performed within the City right-of-way requires a construction permit. As determined by the City Engineer, security may be required for work within the right-of-way. Security shall be in the form of a cash deposit or other

approved means. The City Engineer may require the execution of a public improvement agreement as a condition of the issuance of the construction permit. All inspection fees shall be paid prior to issuance of construction permit. (MC 9.14.100)

LD46. (CP) Prior to issuance of a construction permit, all public improvement plans prepared and signed by a registered civil engineer in accordance with City standards, policies and requirements shall be approved by the City Engineer.

LD47. (CP) Prior to issuance of construction permits, the developer shall submit all improvement plans on compact disks, in (.dxf) digital format to the Land Development Division of the Community and Economic Development Department.

LD48. (CP) Prior to issuance of construction permits, the developer shall pay all applicable inspection fees.

Prior to Building Permit

LD49. (BP) Prior to issuance of building permits, the map shall be recorded. (MC 9.14.090)

LD50. (BP) Prior to issuance of a building permit (excluding model homes), an approval by the City Engineer is required of the water quality control basin(s). The developer shall provide certification to the line, grade, flow test and system invert elevations.

LD51. (BP) Prior to issuance of a building permit, all pads shall meet pad elevations per approved plans as noted by the setting of “Blue-top” markers installed by a registered land surveyor or licensed engineer.

Prior to Certificate of Occupancy

LD52. (CO) Prior to issuance of a certificate of occupancy, the parcel map shall be recorded.

LD53. (CO) Prior to issuance of the last certificate of occupancy or building final, the developer shall pay all outstanding fees.

LD54. (CO) Prior to issuance of a certificate of occupancy, this project is subject to requirements under the current permit for storm water activities required as part of the National Pollutant Discharge Elimination System **(NPDES)** as mandated by the Federal Clean Water Act. In compliance with Proposition 218, the developer shall agree to approve the City of Moreno Valley NPDES Regulatory Rate Schedule that is in place at the time of certificate of occupancy issuance. Following are the requirements:

a. Select one of the following options to meet the financial responsibility to provide storm water utilities services for the required continuous operation,

maintenance, monitoring system evaluations and enhancements, remediation and/or replacement, all in accordance with Resolution No. 2002-46.

i. Participate in the mail ballot proceeding in compliance with Proposition 218, for the Common Interest, Commercial, Industrial and Quasi-Public Use NPDES Regulatory Rate Schedule and pay all associated costs with the ballot process; or

ii. Establish an endowment to cover future City costs as specified in the Common Interest, Commercial, Industrial and Quasi-Public Use NPDES Regulatory Rate Schedule.

b. Notify the Special Districts Division of the intent to request building permits 90 days prior to their issuance and the financial option selected. The financial option selected shall be in place prior to the issuance of certificate of occupancy. (California Government Code & Municipal Code)

LD55. (CO) The City of Moreno Valley has an adopted Development Impact Fee (DIF) nexus study. All projects unless otherwise exempted shall be subject to the payment of the DIF prior to issuance of occupancy. The fees are subject to the provisions of the enabling ordinance and the fee schedule in effect at the time of occupancy.

LD56. (CO) The City of Moreno Valley has an adopted area wide Transportation Uniform Mitigation Fee (TUMF). All projects unless otherwise exempted shall be subject to the payment of the TUMF prior to issuance of occupancy. The fees are subject to the provisions of the enabling ordinance and the fee schedule in effect at the time of occupancy.

LD57. (CO) Prior to issuance of a certificate of occupancy or building final, the developer shall construct all public improvements in conformance with applicable City standards, except as noted in the Special Conditions, including but not limited to the following applicable improvements:

a. Street improvements including, but not limited to: pavement, base, curb, gutter, cross gutter, spandrel, sidewalk, drive approaches, pedestrian ramps, bus turn outs, street lights, signing, striping, landscaping and irrigation, medians, pavement tapers/transitions and traffic control devices as appropriate.

b. Storm drain facilities including, but not limited to: storm drain pipe, storm drain laterals, catch basins and local depressions.

c. Sewer and water systems including, but not limited to: sanitary sewer, potable water and recycled water.

d. Under grounding of existing and proposed utility lines less than 115,000 volts. **All overhead utilities less than 115,000 volts within and along the project boundary will be required to be placed underground and all power poles removed.**

LD58. (CO) Prior to issuance of a certificate of occupancy or building final, all existing and new utilities adjacent to and on-site shall be placed underground in accordance with City of Moreno Valley ordinances. (MC 9.14.130)

LD59. (CO) Prior to issuance of a certificate of occupancy or building final, in order to treat for water quality the sub-area tributary to the basin, the Developer must comply with the following:

a. The water quality basin and all associated treatment control BMPs and all hardware per the approved civil drawing must be constructed, certified and approved by the City Engineer including, but not limited to, piping, forebay, aftbay, trash rack, etc.) Landscape and irrigation plans are not approved for installation at this time.

b. Provide the City with an Engineer's Line and Grade Certification.

c. Perform and pass a flow test per City test procedures.

LD60. (CO) Prior to issuance of a certificate of occupancy or building final for any Commercial/Industrial facility, whichever occurs first, the owner may have to secure coverage under the State's General Industrial Activities Storm Water Permit as issued by the State Water Resources Control Board.

LD61. (CO) Prior to issuance of a certificate of occupancy or building final, the applicant shall ensure the following, pursuant to Section XII. I. of the 2010 NPDES Permit:

a. Field verification that structural Site Design, Source Control and Treatment Control BMPs are designed, constructed and functional in accordance with the approved Final Water Quality Management Plan (WQMP)

b. Certification of best management practices (BMPs) from a state licensed civil engineer. An original WQMP BMP Certification shall be submitted to the City for review and approval.

<u>Prior to Acceptance of Streets into the City Maintained Road System</u>

LD62. (AOS) Aggregate slurry, as defined in Section 203-5 of Standard Specifications for Public Works Construction, may be required just prior to the end of the one-year warranty period of the public streets at the discretion of the City Engineer. If slurry is required, the developer/contractor must provide a slurry mix design submittal for City Engineer approval. The latex additive shall be Ultra Pave 70 (for anionic – per project geotechnical report) or Ultra Pave 65 K (for cationic – per project geotechnical report) or an approved equal. The latex shall be added at the emulsion plant after weighing the asphalt and before the addition of mixing water. The latex shall be added at a rate of two to two-and-one-half (2 to 2½) parts to one-hundred (100) parts of emulsion by volume. Any existing striping shall be removed prior to slurry application and replaced per City standards.

SPECIAL CONDITIONS

LD63. After obtaining entitlements, this project will be required to submit design plans for plan review (Rough Grading Plans, Precise Grading Plans Street Improvement Plans, Signing and Striping Plans, Traffic Control Plans, Traffic Signal Plans, Storm Drain Plans, Sewer and Water Plans, Final Parcel Map, and other plans to the Land Development Division. All engineering (Land Development) type plans shall be drawn on 24"x36" sheet size and use title block per City Standard 708.

LD64. (GPA) Prior to rough grading plan approval, this project shall demonstrate, via a final drainage study, that either the downstream facilities are capable of handling this development's increased runoff or that the increased runoff resulting from the development of this site is mitigated. Unless the downstream facilities are adequate, during no storm event shall the flow leaving the site in the developed condition be larger than that of the pre-developed condition. The drainage study shall analyze the following events: 1, 3, 6 and 24-hour duration events for the 2, 5, 10 and 100-year storm events. The applicant understands that additional detention measures, beyond those shown on the tentative map and preliminary drainage study, may be required.

LD65. (GPA) Prior to precise grading plan approval, this project shall meet all FEMA (Federal Emergency Management Agency) and City requirements for building in a 100 year flood zone (Zone A and Zone AO). This project shall submit for review and approval to FEMA a CLOMR-F (conditional letter of map revision based on fill). All requirements, as set forth by FEMA shall be adhered to, particularly the completion and submittal of FEMA application form MT-1, as well as all City Ordinance 8.12.130 requirements. The CLOMR-F shall be approved by FEMA prior to precise grading plan. The LOMR-F shall be acquired by FEMA after construction. The developer shall contact FEMA for CLOMR-F / LOMR-F requirements. As an alternative to the submittal of a CLOMR-F / LOMR-F, the developer may opt to flood proof the building per all City department requirements and City Ordinance 8.12.170 and as approved by FEMA. See FEMA Technical Bulletins TB 1-93, TB 3-93, and TB 7-93. Website: http://www.fema.gov/ Ph: 1-877-336-2627

LD66. (GPA) Prior to precise grading plan approval, the developer shall submit for review and approval a final soils report including site grading recommendations, especially pertaining to any import/fill relating to the CLOMR-F / LOMR-F requirement.

LD67. (GPA) Prior to precise grading plan approval, the grading plans shall clearly demonstrate that drainage is properly collected and conveyed. The plans shall show all necessary on-site and off-site drainage improvements to properly collect and convey drainage entering, within and leaving the project. This may include, but not be limited to on-site and perimeter drainage improvements to properly convey drainage within and along the project site, and downstream off-site improvements. The developer will be required to obtain the necessary permission for offsite construction including easements, including an encroachment permit for the

connection(s) to the Riverside County Flood Control and Water Conservation District (RCFC&WCD) channel.

LD68. (GPA) Prior to precise grading plan approval, emergency overflow areas shall be shown at all applicable drainage improvement locations in the event that the drainage improvement fails or exceeds full capacity. This may include, but not be limited to, an emergency spillway in the basins and an emergency overflow at any sump catch basin location. Alternatively, the engineer may submit for review and approval oversized catch basin inlets, or other acceptable design, as approved by the City Engineer.

LD69. (GPA) Prior to precise grading plan approval, the plans shall clearly demonstrate that all applicable recommendations from the geotechnical investigation prepared by NorCal Engineering on January 3, 2007 (NorCal Project Number 13461-06), and/or any subsequent report, have been adhered to including, but not limited to, grading operation procedures, structural section design, slab design, wall design, etc.

LD70. (GPA) Prior to precise grading plan approval, the grading plans shall show any proposed trash enclosure as dual bin trash enclosures, one bin for trash and one bin for recyclables. The trash enclosure shall be per City Standard Plan 627, modified to include a fully covered, solid roof.

LD71. (GPA) Prior to precise grading plan approval, the grading plans shall clearly show that the parking lot conforms to City standards. The parking lot shall be 5% maximum, 1% minimum for AC pavement, 0.50% for PCC, 2% maximum at or near any disabled parking stall and travel way. Ramps, curb openings and travel paths shall all conform to current ADA standards as outlined in Department of Justice's "ADA Standards for Accessible Design", Excerpt from 28 CFR Part 36. (www.usdoj.gov).

LD72. (GPA) Prior to precise grading plan or improvement plan approval, as applicable, the plans shall show all driveway approaches where truck movements are anticipated to be constructed City Standard Plan 118C, modified. The driveways shall transition from an 8" curb height to a 0" curb height at the conventional right-of-way 12' behind the curb line, or as approved by the City Engineer. There shall be 4' wide pedestrian sidewalk area at 2% maximum behind the conventional right-of-way. A 4-foot pedestrian right-of-way dedication shall be made on the final parcel map PM 35879.

LD73. (GPA) Prior to precise grading plan approval, the plans shall show roof drains directed to a landscaped area rather than being routed directly to the parking lot. Alternatively, roof drain flows can be directed to private storm drains which will connect to the treatment control best management practice.

LD74. (IPA) Prior to improvement plan approval, this developer shall acquire the required clearances and permits from all applicable agencies, particularly RCFC&WCD.

LD75. (IPA) Prior to improvement plan approval, additional catch basins may be required by the City Engineer along project perimeter streets where street grades are less than 1%. Spacing, sizing and location shall be determined per the final drainage study as approved by the City Engineer.

LD76. (MA) Prior to parcel map approval, the map shall show the following:

a. A 20' street right-of-way dedication on the south side of Iris Avenue along this project's north frontage to ensure a centerline to south right-of-way distance of 50' for an Arterial, City Standard 104A, except where right-of-way has already been dedicated per Instrument No. 2009-0228079 on May 7, 2009.

b. A 78' street right-of-way dedication, 39' north and south of proposed future Krameria Avenue centerline between Cosmos Street and Heacock Street, south of Parcel 1, to ensure a right-of-way distance of 78' for an Industrial Collector Street, City Standard 106.

c. A 39' west-half, street right-of-way dedication and half-width cul-de-sac at the northern terminus of Cosmos Street along this project's east frontage to ensure a centerline to west right-of-way distance of 39' for an Industrial Collector Street, City Standard 106 and City Standard 123.

d. Additional right-of-way for the east half of the Cosmos Street cul-de-sac bulb shall be secured from the adjacent property owner by separate instrument, unless the parcel map for the easterly, adjacent project records first.

e. An additional 10' of right-of-way on the east side of Heacock Street and the south side of Iris Avenue necessary for proposed bus turnouts, as required by the City's Transportation Department, per City Standard 121.

f. A 4' pedestrian right-of-way dedication behind all driveway approaches per City Standard 118C.

g. Corner cutbacks per City Standard 208 to accommodate 50-foot required curb returns at the intersections of Heacock Street and Krameria Avenue and Heacock Street and Iris Avenue.

h. A 1.5' sidewalk easement behind the right-of-way on the east side of Heacock Street where the sidewalk is to be curb-separated

i. A 2' sidewalk easement behind the right-of-way on the south side of Iris Avenue where the sidewalk is to be curb-separated.

j. Two 25' easements for storm drain purposes, shown as Proposed Easement Note "B" on the tentative parcel map, one coinciding with the southerly drive aisle and the other along the westerly drive aisle within Parcel 2. All public storm drain easements shall be a minimum of 25' in width.

k. A 15' easement for sanitary sewer purposes, shown as Proposed Easement Note "A" on the tentative parcel map, coinciding with the westerly drive aisle within Parcel 2.

l. The vacation of existing Krameria Avenue 44' of right-of-way along the south property line of Parcels 2 and 4.

m. The vacation of an unnamed cul-de-sac street 60-foot right-of-way traversing proposed Parcels 2 and 3 as shown on the tentative parcel map.

LD77. (MA) Prior to parcel map approval, the Developer shall guarantee the construction of the following improvements by entering into a public improvement agreement and posting security. The improvements shall be completed prior to occupancy of the first building or as otherwise determined by the City Engineer.

a. Heacock Street, Arterial, City Standard 104A modified (100' RW / 76' CC) shall be constructed to full-width along the entire project's west frontage. Improvements shall consist of, but not be limited to, pavement, base, curb, gutter, sidewalk (modified to be curb-separated with the back of walk 1.5' behind the traditional right-of-way) (east side only), raised median at the south leg of its intersection with Iris Avenue, a guardrail on the west side of Heacock Street as required by the City Engineer, driveway approaches, bus turnout, drainage structures, any necessary offsite improvement transition/joins to existing, streetlights, pedestrian ramps, and dry and wet utilities. This project shall coordinate closely with the City's current CIP (Capital Improvement Project) Heacock Street Improvement Project for the design and construction of Heacock Street. The Capital Project Division's main line is (951) 413-3130.

b. Iris Avenue, Arterial, City Standard 104A (100' RW / 76' CC) shall be constructed to half-width plus an additional 18' north of the construction/proposed centerline, along the entire project's north frontage. A 20' right-of-way dedication on the south side of the street, along the project's north property line except where right-of-way has been previously dedicated per Instrument No. 2009-0228079 on May 7, 2009, shall be shown on the parcel map. Improvements shall consist of, but not be limited to, pavement, base, curb, gutter, sidewalk (modified to be curb-separated with the back of walk 2' behind the traditional right-of-way), bus turnout, raised median on the east leg of its intersection with Heacock Street, driveway approaches, drainage structures, any necessary offsite improvement transition/joins to existing, streetlights, pedestrian ramps, and dry and wet utilities.

c. Cosmos Street, Industrial Collector, City Standard 106 (78' RW / 56' CC) shall be constructed to half-width plus an additional 18' east of the centerline, along the entire project's east frontage. A 39' right-of-way dedication on the west side of the street and additional right-of-way

required for the proposed cul-de-sac at the street's northerly end, along the project's east property line, shall be shown on the parcel map. The 18' of right-of-way on the east side of the centerline including additional right-of-way for the cul-de-sac bulb shall be acquired if not already dedicated by the adjacent property. Improvements shall consist of, but not be limited to, pavement, base, curb, gutter, sidewalk, driveway approaches, drainage structures, any necessary offsite improvement transition/joins to existing, streetlights, pedestrian ramps, and dry and wet utilities. The cul-de-sac at the north end of the Cosmos Street terminus shall be constructed per City Standard 123.

d. Krameria Avenue, Industrial Collector, City Standard 106 (78' RW / 56' CC) shall be constructed to full-width, along the entire project's southerly property line of Parcel 1. A 78' right-of-way dedication shall be shown on the parcel map. Improvements shall consist of, but not be limited to, pavement, base, curb, gutter, sidewalk, driveway approaches, drainage structures, streetlights, pedestrian ramps, and dry and wet utilities.

e. Driveway approaches shall be constructed per City Standard No. 118C, modified. The parcel map shall show an additional 4-foot right-of-way dedication behind driveway approaches. No decorative pavers shall be placed within the public right-of-way.

f. Pavement core samples of existing pavement may be taken and findings submitted to the City for review and consideration of a lesser width of pavement improvements. The City will determine the adequacy of the existing pavement structural section. If the existing pavement section is found to be adequate, then a lesser width than that specified above for street pavement improvements may be allowed, as approved by the City Engineer. If the existing pavement section is found to be inadequate, the Developer shall construct the streets to the limits as listed above.

g. All curb returns and driveway aprons where truck movements are expected shall have a radius of 50' minimum. This shall include the curb return at the southeast corner of Heacock Street and Iris Avenue, both curb returns at the "T" intersection of Heacock Street and proposed Krameria Avenue and all driveways along Heacock Street, Krameria Avenue, and Cosmos Street, or as otherwise directed by the City's Transportation Division.

LD78. (MA) Prior to parcel map approval, written permission must be obtained from off-site property owner(s) for all off-site grading and easements. All on-site and off-site easements shall be shown on the final map. This shall include, but not be limited to, the proposed driveway which straddles this project's southeast corner of APN 316-020-028 and the off-site property to the south, APN 316-100-036.

LD79. (MA) Prior to parcel map approval, this project shall submit for review a reciprocal access agreement between Parcel 2 and the off-site property

south of Parcel 2, APN 316-100-036, if the intention is for reciprocal access amongst parcels, else this project shall submit for review and approval an access easement from off-site APN 316-100-036 in favor of this project's Parcel 2, via separate instrument.

LD80. (BP) Prior to issuance of a building permit, the final parcel map shall record including easement and right-of-way dedications and street vacations proposed therein.

LD81. (OC) Prior to occupancy permit issuance, all overhead utility lines less than 115,000 volts fronting or within the entire project site boundary shall be placed underground per Section 9.14.130C of the City Municipal Code.

LD82. In accordance with the City of Moreno Valley standards, the Double Ring Infiltrometer field testing method shall be utilized to perform in-situ percolation testing in the location of proposed infiltration area treatment control Best Management Practice (BMP) and the results included in the Final WQMP.

LD83. The Preparer shall provide complete and documented calculations for the proposed treatment control BMPs.

LD84. The Applicant shall prepare and submit for approval a Project Specific Final Water Quality Management Plan (F-WQMP) for PA11-0007 formerly PA07-0151 -March Business Center. The F-WQMP shall be consistent with the approved P-WQMP and in full conformance with the document; "Riverside County Water Quality Management Plan for Urban Runoff" dated July 24, 2006. The F-WQMP shall be submitted and approved prior to application for and issuance of grading or building permits. At a minimum, the F-WQMP shall include the following: Site Design BMPs; Source Control BMPs; Treatment Control BMPs; Operation and Maintenance requirements for BMPs; and sources of funding for BMP implementation.

LD85. The Applicant shall select and implement treatment control BMPs that are medium to highly effective for treating Pollutants of Concern (POC) for the project. POC include project pollutants associated with a 303(d) listing or a Total Maximum Daily Load (TMDL) for receiving waters. Project pollutants of concern include: sediment/turbidity, nutrients, organic compounds, oxygen demanding substances, and pathogens (bacteria and viruses). Exhibit C of the document, "Riverside County Water Quality Management Plan for Urban Runoff" dated July 24, 2006 shall be consulted for determining the effectiveness of proposed treatment BMPs.

LD86. The Applicant has proposed to incorporate the use of catch basin 'filter inserts and infiltration basins with underdrain systems. Final design details of these filtration and infiltration systems must be provided in the first submittal of the F-WQMP. The size of the treatment control BMP is to be determined using the procedures set forth in Exhibit C of the Riverside County Guidance Document. The Applicant acknowledges that more area than currently shown on the plans may be required to treat site runoff as required by the WQMP Guidance.

LD87. The Applicant shall substantiate the applicable Hydrologic Condition of Concern (HCOC) (WQMP Section IV) in the F-WQMP. The HCOC designates that the project will comply with Condition A; therefore, the condition must be addressed in the F-WQMP.

LD88. The Applicant shall, prior to building or grading permit closeout or the issuance of a certificate of occupancy, demonstrate:

a. That all structural BMPs have been constructed and installed in conformance with the approved plans and specifications;

b. That all structural BMPs described in the F-WQMP have been implemented in accordance with approved plans and specifications;

c. That the Applicant is prepared to implement all non-structural BMPs included in the F-WQMP, conditions of approval, and building/grading permit conditions; and

d. That an adequate number of copies of the approved F-WQMP are available for the future owners/occupants of the project.

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
Case No: PA11-0002 (Master Plot Plan), PA11-0003 (Plot Plan for Parcel 1), PA11-0004 (Plot Plan for Parcel 2), PA11-0005 (Plot Plan for Parcel 3), and PA11-0006 (Plot Plan for Parcel 4)
APNs: 316-020-032, -033, -034, -035, and -036
10.08.12 Revised

PUBLIC WORKS DEPARTMENT

Special Districts Division

Note: All Special Conditions, Modified Conditions, or Clarification of Conditions are in bold lettering. All other conditions are standard to all or most development projects.

Acknowledgement of Conditions

The following items are Special Districts' Conditions of Approval for projects **PA11-0002 through PA11-0006**; these projects shall be completed at no cost to any Government Agency. All questions regarding Special Districts' Conditions including but not limited to, intent, requests for change/modification, variance and/or request for extension of time shall be sought from the Special Districts Division of the Public Works Department 951.413.3480 or by emailing specialdistricts@moval.org.

General Conditions

SD-1 The parcel(s) associated with this project have been incorporated into the Moreno Valley Community Services Districts Zones A (Parks & Community Services) and C (Arterial Street Lighting). All assessable parcels therein shall be subject to annual Zone A and Zone C charges for operations and capital improvements.

SD-2 Plans for parkway, median, slope, and/or open space landscape areas designated on the tentative map or in these Conditions of Approval for incorporation into Moreno Valley Community Services District **Zone M**, shall be prepared and submitted in accordance with the *City of Moreno Valley Public Works Department Landscape Design Guidelines*. Contact the Special Districts Division of the Public Works Department to obtain copies of this document.

SD-3 The developer, or the developer's successors or assignees shall be responsible for all parkway and/ or median landscape maintenance for a period of one (1) year as per the *City of Moreno Valley Public Works Department Landscape Design Guidelines,* or until such time as the District accepts maintenance responsibilities.

SD-4 Any damage to existing landscape areas maintained by the Moreno Valley Community Services District due to project construction shall be repaired/replaced by the developer, or developer's successors in interest, at no cost to the Moreno Valley Community Services District.

SD-5 Plan check fees for review of parkway/median landscape plans for improvements that shall be maintained by the Moreno Valley Community Services District are due upon the first plan submittal. (MC 3.32.040)

SD-6 Inspection fees for the monitoring of landscape installation associated with Moreno Valley Community Services District maintained parkways/medians are due prior to the required pre-construction meeting. (MC 3.32.040)

SD-7 Streetlight Authorization forms, for all streetlights that are conditioned to be installed as part of this project, must be submitted to the Special Districts Division for approval, prior to streetlight installation. The Streetlight Authorization form can be obtained from the utility company providing electric service to the project, either Moreno Valley Utility or Southern California Edison.

Prior to Building Permit Issuance

SD-8 (BP) This project has been identified to be included in the formation of a Community Facilities District (Mello-Roos) for **Public Safety** services, including but not limited to Police, Fire Protection, Paramedic Services, Park Rangers, and Animal Control services. The property owner(s) shall not protest the formation; however, they retain the right to object to the rate and method of maximum special tax. In compliance with Proposition 218, the developer shall agree to approve the mail ballot proceeding (special election) for either formation of the CFD or annexation into an existing district that may already be established. The Developer must notify Special Districts of intent to request building permits 90 days prior to their issuance. (California Government Code)

SD-9 (BP) This project is conditioned to provide a funding source for the capital improvements and/or maintenance for the **Heacock St. and Iris Ave.** median landscape. In order for the Developer to meet the financial responsibility to maintain the defined service, one of the options as outlined below shall be selected. The Developer must notify Special Districts of intent to request building permits 90 days prior to their issuance and the financial option selected to fund the continued maintenance.

a. Participate in a ballot proceeding for **improved median maintenance** and pay all associated costs with the ballot process and formation costs, if any. Financing may be structured through a Community Services District zone, Community Facilities District, Landscape and Lighting Maintenance District, or other financing structure as determined by the city; or
b. Establish an endowment to cover the future maintenance costs of the landscaped area.

The financial option selected shall be in place prior to the issuance of certificate of occupancy.

SD-10 *Commercial* (BP) If Land Development, a Division of the Community and Economic Development Department, requires this project to supply a funding source necessary to provide, but not limited to, stormwater utilities services for the monitoring of on site facilities and performing annual inspections of the affected areas to ensure compliance with state mandated stormwater regulations, the developer must notify Special Districts 90 days prior to the City's issuance of a building permit and the financial option selected to fund the continued maintenance. (California Government Code)

SD-11 (BP) Prior to the issuance of the first building permit for this project, the developer shall pay Advanced Energy fees for all applicable Zone B (Residential Street Lighting) and/or Zone C (Arterial Street Lighting and Intersection Lighting) streetlights required for this development. Payment shall be made to the City of Moreno Valley, as collected by the Land Development Division, based upon the Advanced Energy fee rate in place at the time of payment, as set forth in the current Listing of City Fees, Charges and Rates, as adopted by City Council.

The developer shall provide a receipt to the Special Districts Division showing that the Advanced Energy fees have been paid in full for the number of streetlights to be accepted into the CSD Zone B and/or Zone C programs. Any change in the project which may increase the number of streetlights to be installed will require payment of additional Advanced Energy fees at the then current fee.

SD-12 (BP) Prior to release of building permit, the developer, or the developer's successors or assignees, shall record with the County Recorder's Office a **Covenant of Assessments** for each assessable parcel therein, whereby the developer covenants the existence of the Moreno Valley Community Services District, its established benefit zones, and that said parcel(s) is

(are) liable for payment of annual benefit zone charges and the appropriate National Pollutant Discharge Elimination System (NPDES) maximum regulatory rate schedule when due. A copy of the recorded Covenant of Assessments shall be submitted to the Special Districts Division. For a copy of the Covenant of Assessments form, please contact Special Districts, phone 951.413.3480.

SD-13 (BP) Final median, parkway, slope, and/or open space landscape/irrigation plans for those areas designated on the tentative map or in these Conditions of Approval for inclusion into Community Services District shall be reviewed and approved by the Community and Economic Development Department–Planning Division, and the Public Works Department–Special Districts and Transportation Divisions prior to the issuance of the first Building Permit.

Prior to Certificate of Occupancy

SD-14 (CO) All parkway and/or median landscaping specified in the tentative map or in these Conditions of Approval shall be constructed prior to the issuance of the Certificate of Occupancy/Building Final for the **1st building** for this project.

SD-15 (CO) Landscape and irrigation plans for parkway, median, slope, and/or open space landscape areas designated for incorporation into Moreno Valley Community Services District shall be placed on compact disk (CD) in pdf format. The CD shall include “As Built” plans, revisions, and changes. The CD will become the property of the City of Moreno Valley and the Moreno Valley Community Services District.

CITY OF MORENO VALLEY

CONDITIONS OF APPROVAL
PA11-0001 through 0007
Proposal for four industrial buildings totaling approximately 1.5 million square feet located on the southeast corner of Heacock Street and Iris Avenue.

Note: All Special conditions are in bold lettering. All other conditions are standard to all or most development projects.

Transportation Engineering Division – Conditions of Approval

Based on the information contained in our standard review process we recommend the following conditions of approval be placed on this project:

GENERAL CONDITIONS

TE1. Conditions of approval may be modified if project is phased or altered from any approved plans.

TE2. Cul-de-sacs shall be designed and constructed per City Standard Plan No. 123 and/or 124.

TE3. Iris Avenue is classified as an Arterial (100'RW/76'CC) per City Standard Plan No. 104A. Design/construction shall include the following:

- **A Class III Bikeway shall be provided along Iris Avenue.**
- **Traffic Signal Interconnect shall be installed along Iris Avenue per City Standard Plan No. 421.**
- **A raised median shall be constructed from Heacock Street to approximately 50 feet east of the westernmost driveway.**

TE4. Heacock Street is classified as an Arterial (100' RW/76' CC) per City Standard Plan No. 104A, modified as necessary due to the MARB perimeter. Design/construction shall include the following:

- **A Class III Bikeway shall be provided along Heacock Street.**
- **Traffic Signal Interconnect shall be installed along Heacock Street per City Standard Plan No. 421.**
- **A raised landscape median shall be constructed on the south leg of the Heacock Street/Iris Avenue intersection (approximately 50 to 100 feet in length).**
- **A northbound right turn lane at the Heacock Street/Iris Avenue intersection.**
- **Metal Beam Guardrail shall be installed as required by the City Engineer.**

TE5. Krameria Avenue is reclassified as an Industrial Collector (78'RW/56'CC) per City Standard Plan No. 106.

TE6. "A" Street is designated as an Industrial Collector (78'RW/56'CC) per City Standard Plan No. 106.

PRIOR TO GRADING PERMIT

TE7. (GP) Prior to issuance of a grading permit, the project applicant shall submit an engineer's cost estimate for a raised landscape median along Iris Avenue (from 50' east of the westernmost driveway to the eastern property boundary) for the City Engineer's approval.

TE8. (GP) Prior to issuance of a grading permit, the project applicant shall submit conceptual striping plans for improvements identified in conditions TE13 and TE14 for the City Traffic Engineer's approval.

PRIOR TO IMPROVEMENT PLAN APPROVAL OR CONSTRUCTION PERMIT

TE9. Driveways shall conform to Section 9.11.080, and Table 9.11.080-14 of the City's Development Code – Design Guidelines and City of Moreno Valley Standard No. 118C for commercial driveway approach. Driveways wider than City standards (maximum of 40 feet) shall be constructed as an intersection with access ramps per City Standard 214A, including any necessary signing and markings, as determined by the City Traffic Engineer.

TE10. Prior to the final approval of the street improvement plans, a signing and striping plan shall be prepared per City of Moreno Valley Standard Plans - Section 4 for all streets with a cross section of 66'/44' and wider.

TE11. Prior to issuance of a construction permit, construction traffic control plans prepared by a qualified, Registered Civil or Traffic engineer may be required.

TE12. Sight distance at driveways and on streets shall conform to City of Moreno Valley Standard No. 125 A, B, and C at the time of preparation of final grading, landscape, and street improvements.

TE13. Prior to the final approval of the street improvement plans, the project applicant shall design the intersection of Heacock Street and Krameria Avenue to provide the following geometrics:

Northbound: One through lane, one shared through/right turn lane
Southbound: One left turn lane, two through lanes
Eastbound: NA
Westbound: One left turn lane, one right turn lane

NOTE: All curb return radii shall be 50 feet.

TE14. Prior to the final approval of the street improvement plans, the project applicant shall design the intersection of Heacock Street and Iris Avenue to provide the following geometrics:

Northbound: Two through lanes, one right turn lane
Southbound: Two left turn lanes, one through lane
Eastbound: NA
Westbound: Two left turn lanes, one right turn lane

NOTE: All curb return radii shall be 50 feet. Design shall include a raised landscape median on the south leg of the intersection. The median shall be approximately 50 to 100 feet in length. A raised landscape median shall also be required on the east leg of the intersection to a point approximately 50 feet east of the westernmost driveway.

TE15. Prior to final approval of the street improvement plans, the project applicant shall design a bus bay per City Standard Plan No. 121 for eastbound Iris Avenue, east of Heacock Street as well as northbound Heacock Street, north of Krameria Avenue.

PRIOR TO BUILDING PERMIT

TE16. (BP) Prior to issuance of a building permit, traffic signal plans shall be prepared by a registered civil or electrical engineer and shall be submitted to the City Traffic Engineer for the following intersections:

- **Heacock Street at Iris Avenue,**
- **Heacock Street at Krameria Street,**
- **Heacock Street at Gentian Avenue (roadway transitions on the south leg may be necessary to align lanes through intersection).**

TE17. (BP) Prior to issuance of a Building Permit, the project applicant shall pay all fair-share contributions per the FEIR Mitigation Measures 4.11-3 and 4.11-4.

TE18. (BP) Prior to issuance of a building permit, the project applicant shall make a fair-share contribution in the amount of $42,805 to the City of Moreno Valley for the construction of a traffic signal at Perris Boulevard and Suburban Lane. As this traffic signal is not in any existing fee program, payment of DIF and/or TUMF are not considered satisfaction of this obligation.

TE19. (BP) Prior to issuance of a building permit, the project applicant shall pay to the City of Moreno Valley 50 percent of the estimated cost for a raised median along Iris Avenue (from 50' east of the westernmost driveway to the eastern property boundary) as established by condition TE7. As this raised median is not in any existing fee program, payment of DIF and/or TUMF are not

considered satisfaction of this obligation. The raised median will be constructed at a future date when warranted.

PRIOR TO CERTIFICATE OF OCCUPANCY OR BUILDING FINAL

TE20. (CO) Prior to issuance of a certificate of occupancy, all approved signing and striping shall be installed per current City Standards and the approved plans.

TE21. (CO) Each gated entrance shall be provided with the following, or as approved by the City Traffic Engineer:

a) A storage lane with a minimum of 75 feet queuing length for entering traffic.
b) Appropriate signing and striping.

All of these features must be kept in working order.

TE22. (CO) Prior to the issuance of a certificate of occupancy, the project applicant shall construct the traffic signals identified in TE16. Construction shall be completed per the approved plans and coordinated with the street improvements.

TE23. (CO) Prior to issuance of a certificate of occupancy, the project applicant shall construct the intersection/roadway improvements identified in TE13, TE14, and TE15 per the approved plans.

TE24. (CO) Prior to the issuance of a certificate of occupancy for the project, driveway access at the following locations will be installed as follows:

- **Westernmost Iris Avenue driveway: Right-in, right-out access restricted by means of a raised median.**
- **Center and Easternmost Iris Avenue driveways: Full access, restricted to right-in, right-out access in the future when a raised median is warranted.**
- **Heacock Street Driveways: Full Access.**
- **Krameria Avenue Driveways: Full access.**
- **"A" Street Driveways: Full Access.**

NOTE: All truck driveways shall have curb return radii of 50 feet.

PRIOR TO ACCEPTANCE OF STREETS INTO THE CITY-MAINTAINED ROAD SYSTEM

TE25. Prior to the acceptance of streets into the City-maintained road system, all approved traffic control and signing and striping shall be installed per current City Standards and the approved plans.

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
Case No: PA11- 0001 through PA11 – 0007, P11- 004, and P11-005
APN: 316-020-032 through 036

PUBLIC WORKS DEPARTMENT

Moreno Valley Utility

Note: All Special Conditions, Modified Conditions, or Clarification of Conditions are in bold lettering. All other conditions are standard to all or most development projects.

Acknowledgement of Conditions

The following items are Moreno Valley Utility's Conditions of Approval for project(s) PA11-0001 through PA11–0007, P11-004, and P11-005; this project shall be completed at no cost to any Government Agency. All questions regarding Moreno Valley Utility's Conditions including but not limited to, intent, requests for change/modification, variance and/or request for extension of time shall be sought from Moreno Valley Utility (the Electric Utility Division) of the Public Works Department 951.413.3500. The applicant is fully responsible for communicating with Moreno Valley Utility staff regarding their conditions.

PRIOR TO RECORDATION OF FINAL MAP

MVU-1 (R) For single family subdivisions, a three foot easement along each side yard property line shall be shown on the final map and offered for dedication to the City of Moreno Valley for public utility purposes, unless otherwise approved by the City Engineer. If the project is a multi-family development, townhome, condominium, apartment, commercial or industrial project, and it requires the installation of electric distribution facilities within common areas, a non-exclusive easement shall be provided to Moreno Valley Utility to include all such common areas. All easements shall include the rights of ingress and egress for the purpose of operation, maintenance, facility repair, and meter reading.

PRIOR TO ISSUANCE OF BUILDING PERMIT

MVU-2 (BP) **City of Moreno Valley Municipal Utility Service – Electrical Distribution**: Prior to issuance of building permit, the developer shall submit a detailed engineering plan showing design, location and schematics for the utility system to be approved by the City Engineer. In accordance with Government Code Section 66462, the Developer **shall** execute an agreement with the City providing for the installation, construction, improvement and dedication of the utility system following recordation of final map and concurrent with trenching operations and other subdivision improvements so

long as said agreement incorporates the approved engineering plan and provides financial security to guarantee completion and dedication of the utility system.

The Developer **shall** coordinate and receive approval from the City Engineer to install, construct, improve, and dedicate to the City, or the City's designee, all utility infrastructure (including but not limited to conduit, equipment, vaults, ducts, wires, switches, conductors, transformers, resistors, amplifiers, and "bring-up" facilities including electrical capacity to serve the identified development and other adjoining/abutting/ or benefiting projects as determined by Moreno Valley Utility) – collectively referred to as "utility system" (to and through the development), along with any appurtenant real property easements, as determined by the City Engineer to be necessary for the distribution and /or delivery of any and all "utility services" to each lot and unit within the Tentative Map. For purposes of this condition, "utility services" shall mean electric, cable television, telecommunication (including video, voice, and data) and other similar services designated by the City Engineer. "Utility services" shall not include sewer, water, and natural gas services, which are addressed by other conditions of approval. Properties within development will be subject to an electrical system capacity charge and that contribution will be collected prior to issuance of building permits.

The City, or the City's designee, shall utilize dedicated utility facilities to ensure safe, reliable, sustainable and cost effective delivery of utility services and maintain the integrity of streets and other public infrastructure. Developer shall, at developer's sole expense, install or cause the installation of such interconnection facilities as may be necessary to connect the electrical distribution infrastructure within the project to the Moreno Valley Utility owned and controlled electric distribution system. Alternatively, developer may cause the project to be included in or annexed to a community facilities district established or to be established by the City for the purpose of financing the installation of such interconnection and distribution facilities. The project shall be deemed to have been included in or annexed to such a community facilities district upon the expiration of the statute of limitations to any legal challenges to the levy of special taxes by such community facilities district within the property. The statute of limitations referred to above will expire 30 days after the date of the election by the qualified electors within the project to authorize the levy of special taxes and the issuance of bonds.

MVU-3 This project may be subject to a Reimbursement Agreement. The project may be responsible for a proportionate share of costs associated with electrical distribution infrastructure previously installed that directly benefits the project. The project may be subject to a system wide capacity charge in addition to the referenced reimbursement agreement. Payment(s) shall be required prior to issuance of building permit(s).

PLANNING COMMISSION RESOLUTION NO. 2012-36

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY RECOMMENDING APPROVAL OF PA11-0007 (TENTATIVE PARCEL MAP NO. 35879) FOR FOUR SEPARATE BUILDABLE PARCELS CONSISTING OF A PROPOSED INDUSTRIAL WARHOUSE AND MANUFACTURING DEVELOPMENT COMPLEX (1,484,407 SQUARE FEET) ON AN APPROXIMATE 75.05 GROSS ACRE (66.93 NET ACRE) SITE LOCATED ON THE SOUTHEAST CORNER OF IRIS AVENUE AND HEACOCK STREET

WHEREAS, the applicant, Hogle-Ireland Inc. and representative Western Realco LLC., has filed an application for Tentative Parcel Map No. 35879 consisting of the subdivision of an approximate 75.05 acre site to include four separate industrial buildings including Parcel 1- 47.42 acres and a 1,103,003 square feet building, Parcel 2 – 11.77 acres and a 277,243 square foot building, Parcel 3 – 5.95 acre parcel and a 87,429 square foot building and Parcel 4 – 1.54 acre parcel and a 16,732 square foot building.

WHEREAS, The project also includes applications for an Environmental Impact Report (EIR) under P11-005, a Specific Plan Amendment (P11-004), General Plan Amendment (PA11-0001), and individual plot plans (PA11-0002 through PA11-0006). All are related but will be included in separate resolutions with individual findings.

WHEREAS, on December 13, 2012, the Planning Commission of the City of Moreno Valley held a meeting to consider and provide a recommendation on the application.

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred.

WHEREAS, there is hereby imposed on the subject development project certain fees, dedications, reservations and other exactions pursuant to state law and City ordinances.

WHEREAS, pursuant to Government Code Section 66020(d)(1), **NOTICE IS HEREBY GIVEN** that this project is subject to certain fees, dedications, reservations and other exactions as provided herein.

ATTACHMENT 5

NOW, THEREFORE, BE IT FOUND, DETERMINED AND RESOLVED by the Planning Commission of the City of Moreno Valley as follows:

A. This Planning Commission hereby specifically finds that all of the facts set forth above in this Resolution are true and correct.

B. Based upon substantial evidence presented to this Planning Commission during the above-referenced meeting on December 13, 2012, including written and oral staff reports, and the record from the public hearing, this Planning Commission hereby specifically finds as follows:

1. **Conformance with General Plan Policies –** The proposed use is consistent with the General Plan, and its goals, objectives, policies and programs.

FACT: The applicant has proposed Tentative Parcel Map No. 35879 to subdivide an approximate 75 acre site into four (4) separate buildable parcels for various industrial related uses. The map would be consistent with a proposed General Pan amendment and amendment to Specific Plan No. 208 to modify the design and classification of an undeveloped segment of Krameria Avenue to accommodate the development and to downgrade the roadway classification of Krameria Avenue between Indian Avenue and Heacock Street from a minor arterial (88 foot right of way) to an Industrial Collector (78 foot right of way). The proposed industrial land use is consistent with the BP (Business Park) land use district in the General Plan, while the proposed General Plan amendment for the proposed development would not cause an inconsistency of land use.

2. The site of the proposed land division is physically suitable for the type of development and proposed density of development.

FACT: The proposed subdivision has been designed in accordance with the City Zoning Ordinance and the State Subdivision Map Act. The proposed subdivision of vacant land complies with the Specific Plan and Map Act in that all lots meet the minimum buildable size, all lots upon which development will take place will provide access to and from dedicated public streets and all lots conform to development standards within the Municipal Code.

3. Health, Safety and Welfare **–** The proposed use will not be detrimental to the public health, safety or welfare or materially injurious to properties or improvements in the vicinity.

FACT: An Environmental Impact report (EIR) has been prepared for the overall project, including the proposed Tentative Parcel Map, Change of Zone, Specific Plan Amendment and Plot Plans. Findings and a Statement of Overriding Considerations has been prepared for said project to deal with impacts that cannot be reduced to less than significant levels**.** Said EIR is required to be certified and approved as a part of the proposed project. Said EIR is also accompanied by a Mitigation Monitoring Program, which will ensure the completion of required mitigation measures for the project. The project site is surrounded by Iris Avenue and Heacock Street, and primarily vacant industrial land to the north, east and south, a residential subdivision northeast of the project site and the March Air Reserve Base to the west.

The project would include conditions and mitigation measures for the lessening of proposed environmental impacts. Mitigation measures have been provided to minimize any potential environmental impacts, including air quality, biological resources, cultural resources, greenhouse gas emissions, hazardous materials, noise, and transportation/traffic. Mitigation measures for air quality, noise and transportation/traffic would not be reduced to less than significant levels in some cases based on the analysis and recommendations contained in the Final Environmental Impact Report (EIR) and corresponding Statement of Overriding Considerations. Said conditions of approval and mitigation measures have been included to address specific requirements and assist in providing compatibility of land uses, including, but not limited to site improvements and aesthetic enhancements. Said mitigation measures included with the project will lessen environmental impacts on any existing or future properties within the general vicinity of the proposed development and project and reduce impacts to public health, safety and welfare.

4. The design of the proposed land division or type of improvements will not conflict with easements, acquired by the public at large, for access through, or use of, property within the proposed land division.

FACT: There are no conflicts with easements on the subject site. The City Engineer has appropriately placed conditions of approval for Tentative Parcel Map No. 35879 regarding various project improvements.

5. The design of the proposed land division or the type of improvements is not likely to cause substantial environmental damage or substantially and unavoidably injure fish or wildlife or their habitat or cause serious health problems.

FACT: Pursuant to the California Environmental Quality Act (CEQA) guidelines, An Environmental Impact Report (EIR) has been prepared for the overall project, including the proposed General Plan amendment, Specific Plan Amendment, Tentative Parcel Map and various plot plans. Findings and a Statement of Overriding Considerations have been prepared for said project to deal with impacts related to air quality, noise and traffic/transportation. Said EIR is required to be certified and approved as a part of the proposed project. The EIR document is also accompanied by a Mitigation Monitoring Program, which will ensure the completion of required mitigation measures for the project. The project site is surrounded by Iris Avenue and Heacock Street, and primarily vacant industrial land to the north, east and south, a residential subdivision northeast of the project site and the March Air Reserve Base to the west.

With mitigation measures imposed for air quality, biological resources, cultural resources, greenhouse gas emissions, hazardous materials, noise, and transportation/traffic, said impacts from the proposed project and use will be significantly reduced but still considered as significant and unavoidable, thereby requiring a statement of overriding considerations and not mitigated to less than significant levels. Said mitigation measures included with the project will lessen environmental impacts on any existing or future properties within the general vicinity of the proposed development and project and reduce impacts to public health, safety and welfare.

6. The effect of the proposed housing needs of the region were considered and balanced against the public service needs of the residents of Moreno Valley and available fiscal and environmental resources.

FACT: The proposed map meets the intent of the General Plan if the proposed general plan amendment (PA11-0001) is approved. The map will provide for a variety of industrial and land use opportunities, supporting the economic base of the City. Proximity to existing residential and commercial land use allows for contiguous development and infrastructure. The project does not exceed the planned density or the associated public service demand as envisioned by the

Moreno Valley General Plan. The project does not exceed a threshold, which would create potential significant impacts to fiscal resources. The project will supplement the City's fiscal resources by paying applicable impact fees for public facilities Additionally, future development within the four buildable parcels will pay Community Services District fees, property tax, sales tax, utility tax and other taxes and fees that will be used to provide landscape maintenance as well as police, fire and other public services.

7. The design of the land division provides, to the extent feasible, for future passive or natural heating and cooling opportunities in the subdivision.

FACT: The size, configuration and orientation of the lots in this land division allow solar access for passive heating and opportunities for placement of shade trees and other vegetation for cooling.

C. FEES, DEDICATIONS, RESERVATIONS, AND OTHER EXACTIONS

1. FEES

Impact, mitigation and other fees are due and payable under currently applicable ordinances and resolutions. These fees may include but are not limited to: Development impact fee, Stephens Kangaroo Habitat Conservation fee, Underground Utilities in lieu Fee, Area Drainage Plan fee, Bridge and Thoroughfare Mitigation fee (Future) and Traffic Signal Mitigation fee. The final amount of fees payable is dependent upon information provided by the applicant and will be determined at the time the fees become due and payable.

Unless otherwise provided for by this resolution, all impact fees shall be calculated and collected at the time and in the manner provided in Chapter 3.32 of the City of Moreno Valley Municipal Code or as so provided in the applicable ordinances and resolutions. The City expressly reserves the right to amend the fees and the fee calculations consistent with applicable law.

2. DEDICATIONS, RESERVATIONS, AND OTHER EXACTIONS

The adopted Conditions of Approval for PA11-0007 incorporated herein by reference, may include dedications, reservations, and exactions pursuant to Government Code Section 66020 (d) (1).

3. The City expressly reserves the right to establish, modify or adjust any fee, dedication, reservation or other exaction to the extent permitted and as authorized by law.

Pursuant to Government Code Section 66020(d)(1), NOTICE IS FURTHER GIVEN that the 90 day period to protest the imposition of any impact fee, dedication, reservation, or other exaction described in this resolution begins on the effective date of this resolution and any such protest must be in a manner that complies with Section 66020(a) and failure to timely follow this procedure will bar any subsequent legal action to attack, review, set aside, void or annul imposition.

Your right to protest the fees, dedications, reservations, or other exactions does not apply to planning, zoning, grading, or other similar application processing fees or service fees in connection with this project and it does not apply to any fees, dedication, reservations, or other exactions of which you have been given a notice similar to this nor does it revive challenges to any fees for which the Statute of Limitations has previously expired.

BE IT FURTHER RESOLVED that the Planning Commission **HEREBY APPROVES** Resolution No. 2012-36, **RECOMMENDING APPROVAL TO CITY COUNCIL** of PA11-0007 (Tentative Tract Map No. 35879) for the subdivision of approximately 75.05 gross acres of land into four (4) separate buildable parcels for various warehouse and manufacturing based on the affirmative recommendation of the Adoption and Certification of the Environmental Impact Report Mitigation Monitoring Program and Statement of Overriding Considerations, subject to the attached conditions of approval included as Exhibit A.

APPROVED this ____ day of _____, 2012.

_____
Meli Van Natta
Chair, Planning Commission

ATTEST:

_____
John C. Terell, Planning Official
Secretary to the Planning Commission

APPROVED AS TO FORM:

_____
City Attorney

Attached: Conditions of Approval

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
FOR
TENTATIVE PARCEL MAP No. 35879
Case No: PA011-0007
A.P.N.: 316-020-032 through 036

Approval Date: _____
Expiration Date: _____

The following conditions are attached for the following departments:

_x_ **Planning (P), including School District (S), Post Office (PO), Building (B)**
_x_ **Fire Prevention Bureau (F)**
_x_ **Public Works, Land Development (LD)**
_x_ **Public Works, Special Districts (SD)**
_x_ **Public Works – Transportation (TE)**
___ **Parks & Community Services (PCS)**
_x_ **Police (PD)**
_x_ **Moreno Valley Utilities**
___ **Other (Specify or Delete)**

Note: All Special conditions are in bold lettering. All other conditions are standard to all or most development projects. (Include only those that apply)

COMMUNITY & ECONOMIC DEVELOPMENT DEPARTMENT

Planning Division

GENERAL CONDITIONS

P1. This approval shall comply with all applicable requirements of the City of Moreno Valley Municipal Code.

EXHIBIT A

Timing Mechanisms for Conditions (see abbreviation at beginning of affected condition):

R - Map Recordation	GP - Grading Permits	CO - Certificate of Occupancy or building final
WP - Water Improvement Plans	BP - Building Permits	P - Any permit

Governing Document (see abbreviation at the end of the affected condition):

GP - General Plan	MC - Municipal Code	CEQA - California Environmental Quality Act
Ord - Ordinance	DG - Design Guidelines	Ldscp - Landscape Development Guidelines and Specs
Res - Resolution	UFC - Uniform Fire Code	UBC - Uniform Building Code
	SBM - Subdivision Map Act	

P2. This tentative map shall expire three years after the approval date of this tentative map unless extended as provided by the City of Moreno Valley Municipal Code; otherwise it shall become null and void and of no effect whatsoever in the event the applicant or any successor in interest fails to properly file a final map before the date of expiration. (MC 9.02.230, 9.14.050, 080)

P3. The site shall be developed in accordance with the approved tentative map on file in the Community Development Department -Planning Division, the Municipal Code regulations, General Plan, and the conditions contained herein. (MC 9.14.020)

P4. A drought tolerant, low water using landscape palette shall be utilized throughout the tract to the extent feasible.

P5. All undeveloped portions of the site shall be maintained in a manner that provides for the control of weeds, erosion and dust. (MC 9.02.030)

P6. All landscaped areas shall be maintained in a healthy and thriving condition, free from weeds, trash and debris. (MC 9.02.030)

P7. (BP) Enhanced architectural treatments shall be included on the approved plans for all homes having side and/or reverse frontages to public streets or open space areas.

P8. All site plans, grading plans, landscape and irrigation plans, and street improvement plans shall be coordinated for consistency with this approval.

PRIOR TO GRADING

P9. (GP) Prior to approval of any grading permit, the developer shall submit a tree plan to the Planning Division for review and approval. The plan shall identify all mature trees (4 inch trunk diameter or larger) on the subject property and City right-of-way. Using the grading plan as a base, the plan shall indicate trees to be relocated, retained, and removed. Replacement trees shall be: shown on the plan; be a minimum size of 24 inch box; and meet a ratio of three replacement trees for each mature tree removed or as approved by the Community Development Director or designee. (GP Objective 4.4, 4.5, DG)

P10. (GP) Prior to issuance of grading permits, the developer shall pay the applicable Stephen's' Kangaroo Rat (SKR) Habitat Conservation Plan mitigation fee. (Ord)

P11. (GP) Prior to the issuance of grading permits, final erosion control landscape and irrigation plans for all cut or fill slopes over 3 feet in height shall be submitted to the Planning Division for review and approval for the phase in process. The plans shall be designed in accordance with the slope erosion plan as required by the City Engineer for that phase. Man-made slopes greater than 10 feet in height shall be "land formed" to conform to the natural terrain and shall be landscaped and stabilized to minimize visual scarring. (GP Objective 1.5, MC 9.08.080, DG)

P12. (GP) If potential historic, archaeological, or paleontological resources are uncovered during excavation or construction activities at the project site, work in the affected area will cease immediately and a qualified person (meeting the Secretary of the Interior's standards (36CFR61)) shall be consulted by the applicant to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, prehistoric, or paleontological resource. Determinations and recommendations by the consultant shall be implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all affected Native American Tribes before any further work commences in the affected area.

If human remains are discovered, work in the affected area shall cease immediately and the County Coroner shall be notified. If it is determined that the remains are potentially Native American, the California Native American Heritage Commission and any and all affected Native American Indians tribes such as the Morongo Band of Mission Indians or the Pechanga Band of Luiseno Indians shall be notified and appropriate measures provided by State law shall be implemented.
(GP Objective 23.3, DG, CEQA).

P13. (GP) Prior to the issuance of grading permits, a pre-construction Burrowing Owl survey shall be completed with written documentation provided to the Planning Division. The survey shall be completed in accordance with the Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Area.

P14. **(GP) Prior to issuance of grading permits, plans for any security gate system shall be submitted to the Planning Division for review and approval.**

P15. **A qualified archaeologist and or tribal monitors from any affected Native American Indian tribes shall be present during grading to evaluate and recommend appropriate actions for any archaeological deposits exposed by construction activity. The monitoring archaeologist shall be empowered to halt grading in the vicinity of an exposed archaeological deposit until that deposit can be fully evaluated. The consultant (i.e. archaeologist) shall consult with any and all affected Native American Indian tribes in the area on any Treatment Plan prepared for the project.**

P16. **(GP) Prior to the issuance of grading permits, mitigation measures contained in the Mitigation Monitoring Program approved with this project shall be implemented as provided therein. A mitigation monitoring fee, as provided by City ordinance, shall be paid by the applicant within 30 days of project or tentative map approval. No City permit or approval shall be issued until such fee is paid. (CEQA)**

P17. **(GP) Prior to issuance of grading permits for individual parcels, the developer shall submit wall/fence plans to the Planning Division for review and approval for fourteen (14) foot high solid decorative perimeter wall with pilasters and a cap or other decorative embelishments along the eastern and western boundaries adjacent to right of way areas to screen all truck loading activities. (MC 9.08.070*)***

P18**. (GP) Prior to issuance of grading permits, landscape plans (trees, shrubs and groundcover) for basins maintained by an HOA or other private entity shall be submitted to the Planning Division for review and approval for the sides and/or slopes. A hydroseed mix w/irrigation is acceptable for the bottom of all the basin areas. All detention basins shall include trees, shrubs and groundcover up to the concreted portion of the basin. A solid decorative wall with pilasters, tubular steel fence with pilasters or other fence or wall approved by the Community and Economic Development Director is required to secure all water quality and detention basins more than 18 inches in depth.**

PRIOR TO RECORDATION OF FINAL MAP

P19. (R) Prior to final map recordation, subdivision phasing (including any proposed common open space or improvement phasing, if applicable), shall be subject to the Planning Division approval. Any proposed phasing shall provide for adequate vehicular access to all lots in each phase as determined by the City Transportation Engineer or designee and shall substantially conform to all intent and purpose of the subdivision approval. (MC 9.14.080)

P20. (R) Prior to recordation of the final map, any required final median enhancement/landscape/irrigation plans shall be reviewed and approved by the Planning Division, and Public Works Department - Special Districts Administration for review and approval by each division. (GP - Circulation Master Plan)

P21. (R) Prior to recordation of the final subdivision map, the developer shall submit for review and approval the following documents to the Planning Division which shall demonstrate that the project will be developed and maintained in accordance with the intent and purpose of the approval:

a. The document to convey title
b. Deed restrictions, easements, or Covenants, Conditions and Restrictions to be recorded

The approved documents shall be recorded at the same time that the subdivision map is recorded. The documents shall contain provisions for general maintenance of the site, joint access to proposed parcels, open space use restrictions, water quality basins, lighting, landscaping and common area use items such as general building maintenance and public seating areas. The approved documents shall also contain a provision, which provides that they may not be terminated and/or substantially amended without the consent of the City and the developer's successor-in-interest. (MC 9.14.090)

In addition, the following deed restrictions and disclosures shall be included within the document and grant deed of the properties:

- **The developer and association shall promote the use of native plants and trees and drought tolerant species to the extent feasible.**

- **(R) All lots designated for open space and or detention basins, shall be included as an easement to, and maintained by a Homeowners Association (HOA) or other private maintenance entity. All reverse frontage landscape areas shall also be maintained by the onsite HOA. Language to this effect shall be included and reviewed within the required Covenant Conditions and Restrictions (CC&Rs) prior to the approval of the final map.**

- **Maintenance of any and all common facilities.**

PRIOR TO BUILDING PERMIT

P22. (BP) Prior to issuance of building permits, the developer or developer's successor-in-interest shall pay all applicable impact fees, including but not limited to Transportation Uniform Mitigation fees (TUMF), Multi-species Habitat Conservation Plan (MSHCP) mitigation fees, and the City's adopted Development Impact Fees. (Ord)

P23. (BP) Prior to issuance of building permits **for individual parcels**, final front and street side yard landscape and irrigation plans, point by point lighting plans, slope landscape plans and basin landscape plans, shall be approved.

P24. (BP) Prior to issuance of building permits, landscape plans (trees, shrubs and groundcover) for basins maintained by an HOA, or other private entity, shall be approved for the sides and or slopes of all water quality basins and drainage areas. A solid decorative wall with pilasters, tubular steel fence with pilasters or other fence or wall approved by the Planning Official is required to secure all water quality and detention basins more than 18 inches in depth.

PRIOR TO CERTIFICATE OF OCCUPANCY

P25. (CO) Prior to the issuance of Certificates of Occupancy or building final, slope landscape and irrigation shall be installed. Landscaping on lots not yet having development shall be maintained by the developer weed and disease free. (MC 9.03.040)

P26. (CO) Prior to the issuance of Certificates of Occupancy or building final, all required and proposed fences and walls shall be constructed per the approved plans on file in the Planning Division. (MC 9.080.070)

P27. (CO) For a basin maintained by an HOA or other private entity, landscape (trees, shrubs and groundcover) and irrigation shall be installed, and maintained by the HOA or other private entity.

Building and Safety Division

B-1 The above project shall comply with the current California Codes (CBC, CEC, CMC and the CPC) as well as all other city ordinances. All new projects shall provide a soils report. Plans shall be submitted to the Building Department as a separate submittal.

B-2 Prior to final inspection, all plans will be placed on a CD Rom for reference and verification. Plans will include "as built" plans, revisions and changes. The CD will also include Title 24 energy calculations, structural calculations and all other pertinent information. It will be the responsibility of the developer and or the building or property owner(s) to bear all costs required for this process. The CD will be presented to the Building Department for review prior to final inspection and building occupancy. The CD will become the property of the Moreno Valley Building Department at that time *(applies only to commercial, industrial, and multi-family projects).*

B-3 All projects that will be serviced by a private sewage disposal system shall obtain approval from the Riverside County Environmental Health Department prior to submitting plans to the Building Department.

B-4 (BP) Prior to the issuance of a building permit, the applicant shall submit a properly completed "Waste Management Plan" (WMP), as required, to the Compliance Official (Building Official) as a portion of the building or demolition permit process.

SCHOOL DISTRICT

S-1. (BP) Prior to issuance of building permits, the developer shall provide to the Community Development Director a written certification by the affected school district that either: (1) the project has complied with the fee or other exaction levied on the project by the governing board of the district, pursuant to Government Code Section 65996; or (2) the fee or other requirement does not apply to the project.

UNITED STATES POSTAL SERVICE

PO-1. (BP) Prior to the issuance of building permits, the developer shall contact the U.S. Postal Service to determine the appropriate type and location of mailboxes.

POLICE DEPARTMENT

Note: All Special conditions are in bold lettering. All other conditions are standard to all or most development projects

Standard Conditions

PD1. Prior to the start of any construction, temporary security fencing shall be erected. The fencing shall be a minimum of six (6) feet high with locking, gated access and shall remain through the duration of construction. Security fencing is required if there is: construction, unsecured structures, unenclosed storage of materials and/or equipment, and/or the condition of the site constitutes a public hazard as determined by the Public Works Department. If security fencing is required, it shall remain in place until the project is completed or the above conditions no longer exist. (DC 9.08.080)

PD2. (GP) Prior to the issuance of grading permits, a temporary project identification sign shall be erected on the site in a secure and visible manner. The sign shall be conspicuously posted at the site and remain in place until occupancy of the project. The sign shall include the following:

a. The name (if applicable) and address of the development.

b. The developer's name, address, and a 24-hour emergency telephone number. (DC 9.08.080)

PD3. (CO) Prior to the issuance of a Certificate of Occupancy, an Emergency Contact information Form for the project shall be completed at the permit counter of the Community Development Department - Building Division for routing to the Police Department. (DC 9.08.080)

CITY OF MORENO VALLEY
CONDITIONS
Case No: PA11-0001 TO PA11-007, P11-004 AND 005
APN: 316-020-001, 006, 007, 028, 010
DATE: 10/08/12

FIRE PREVENTION BUREAU

1. **Still pending the completion of attached fire flow letter, the fire flow letter provided was not for the parcel fronting this project, but for the parcel adjacent to it. Fire flow shall be taken from the street that it fronts. Fire flow letter and improvements shall be completed prior to grading permit approval.**
2. **The following Standard Conditions shall apply.**

With respect to the conditions of approval, the following fire protection measures shall be provided in accordance with Moreno Valley City Ordinances and/or recognized fire protection standards:

F1. Final fire and life safety conditions will be addressed when the Fire Prevention Bureau reviews building plans. These conditions will be based on occupancy, use, California Building Code (CBC), California Fire Code (CFC), and related codes, which are in force at the time of building plan submittal.

F2. The Fire Prevention Bureau is required to set a minimum fire flow for the remodel or construction of all commercial buildings per CFC Appendix B and Table B105.1. The applicant/developer shall provide documentation to show there exists a water system capable of delivering ___4000_ GPM for__4_ hour(s) duration at 20-PSI residual operating pressure. The required fire flow may be adjusted during the approval process to reflect changes in design, construction type, or automatic fire protection measures as approved by the Fire Prevention Bureau. Specific requirements for the project will be determined at time of submittal. (CFC 508.3, Appendix B and MVMC 8.36.100 Section D) . **The 50% reduction in fire flow was granted for the use of fire sprinklers throughout the facility. The reduction shall only apply to fire flow, hydrant spacing shall be per the fire flow requirements listed in CFC Appendix B and C.**

F3. Industrial, Commercial, Multi-family, Apartment, Condominium, Townhouse or Mobile Home Parks. A combination of on-site and off-site super fire hydrants (6" x 4" x 2 ½" x 2 ½") and super enhanced fire hydrants (6" x 4" x 4" x 2 ½") shall not be closer than 40 feet and more than 150 feet from any portion of the building as measured along approved emergency vehicular travel ways. The required fire flow shall be available from any adjacent fire hydrant(s) in the system. Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, super or enhanced fire hydrants as determined by the fire code official shall be provided at spacing not to exceed 500 feet of frontage for transportation hazards. (CFC 508.5.7 & MVMC 8.36.050 Section O and 8.36.100 Section E)

F4. Maximum cul-de-sac or dead end road length shall not exceed 660 feet. The Fire Chief, based on City street standards, shall determine minimum turning radius for fire apparatus based upon fire apparatus manufacture specifications. (CFC 503.1)

F5. During phased construction, dead end roadways and streets which have not been completed shall have a turn-around capable of accommodating fire apparatus. (CFC 503.1 and 503.2.5)

F6. Prior to issuance of Building Permits, the applicant/developer shall provide the Fire Prevention Bureau with an approved site plan for Fire Lanes and signage. (MVMC 8.36.050 and CFC 501.3)

F7. Prior to construction and issuance of building permits, all locations where structures are to be built shall have an approved Fire Department emergency vehicular access road (all weather surface) capable of sustaining an imposed load of 80,000 lbs. GVW, based on street standards approved by the Public Works Director and the Fire Prevention Bureau. (CFC 501.4 and MVMC 8.36.050 Section A)

F8. Prior to construction and issuance of Building Permits, fire lanes and fire apparatus access roads shall have an unobstructed width of not less than twenty–four (24) or thirty (30) feet as approved by the Fire Prevention Bureau and an unobstructed vertical clearance of not less the thirteen (13) feet six (6) inches. (CFC 503.2.1.1 and MVMC 8.36.050)

F9. Prior to construction, all roads, driveways and private roads shall not exceed 12 percent grade. (CFC 503.2.7 and MVMC 8.36.050)

F10. If construction is phased, each phase shall provide an approved emergency vehicular access way for fire protection prior to any building construction. (CFC 501.4 and MVMC 8.36.050 Section A)

F11. Prior to construction, all locations where structures are to be built shall have an approved Fire Department access based on street standards approved by the Public Works Director and the Fire Prevention Bureau. (CFC 501.3 and MVMC 8.36.050)

F12. Prior to building construction, dead end roadways and streets which have not been completed shall have a turnaround capable of accommodating fire apparatus. (CFC 503.2.5 and MVMC 8.36.050)

F13. Prior to issuance of Building Permits, the applicant/developer shall participate in the Fire Impact Mitigation Program. (Fee Resolution as adopted by City Council)

F14. Prior to issuance of Building Permits, the applicant/developer shall furnish one copy of the water system plans to the Fire Prevention Bureau for review. Plans shall:

a) Be signed by a registered civil engineer or a certified fire protection engineer;

b) Contain a Fire Prevention Bureau approval signature block; and
c) Conform to hydrant type, location, spacing of new and existing hydrants and minimum fire flow required as determined by the Fire Prevention Bureau.

After the local water company signs the plans, the originals shall be presented to the Fire Prevention Bureau for signatures. The required water system, including fire hydrants, shall be installed, made serviceable, and be accepted by the Moreno Valley Fire Department prior to beginning construction. They shall be maintained accessible.

Existing fire hydrants on public streets are allowed to be considered available. Existing fire hydrants on adjacent properties shall not be considered available unless fire apparatus access roads extend between properties and easements are established to prevent obstruction of such roads. (CFC 508.1 and MVMC 8.36.100)

F15. Prior to issuance of Certificate of Occupancy or Building Final, "Blue Reflective Markers" shall be installed to identify fire hydrant locations in accordance with City specifications. (CFC 510.1)

F16. Prior to issuance of Certificate of Occupancy or Building Final, all commercial buildings shall display street numbers in a prominent location on the street side and rear access locations. The numerals shall be a minimum of twelve (12) inches in height for buildings and six (6) inches in height for suite identification on a contrasting background. Unobstructed lighting of the address(s) shall be by means approved by the Fire Prevention Bureau and Police Department. In multiple suite centers (strip malls), businesses shall post the name of the business on the rear door(s). (CFC 505.1)

F17. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire sprinkler system based on square footage and type of construction, occupancy or use. Fire sprinkler plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9)

F18. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire alarm system monitored by an approved Underwriters Laboratory listed central station based on a requirement for monitoring the sprinkler system, occupancy or use. Fire alarm panel shall be accessible from exterior of building in an approved location. Plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9 and MVMC 8.36.070)

F19. Prior to issuance of a Certificate of Occupancy or Building Final, a "Knox Box Rapid Entry System" shall be provided. The Knox-Box shall be installed in an accessible location approved by the Fire Chief. The Knox-Box shall be supervised by the alarm system and all exterior security emergency access gates shall be electronically operated and be provided with Knox key switches for access by emergency personnel. (CFC 506.1)

F20. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall be responsible for obtaining underground and/or above ground tank permits for the storage of combustible liquids, flammable liquids, or any other hazardous materials from both the County of Riverside Community Health Agency Department of Environmental Health and the Fire Prevention Bureau. (CFC 3401.4 and 2701.5)

F21. Prior to issuance of Certificate of Occupancy, approval shall be required from the County of Riverside Community Health Agency (Department of Environmental Health) and Moreno Valley Fire Prevention Bureau to maintain, store, use, handle materials, or conduct processes which produce conditions hazardous to life or property, and to install equipment used in connection with such activities. (CFC 2701.5)

F22. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer must submit a simple plot plan, a simple floor plan, and other plans as requested, each as an electronic file in .dwg format, to the Fire Prevention Bureau. Alternate file formats may be acceptable with approval by the Fire Chief.

F23. The angle of approach and departure for any means of Fire Department access shall not exceed 1 ft drop in 20 ft (0.3 m drop in 6 m), and the design limitations of the fire apparatus of the Fire Department shall be subject to approval by the AHJ. (CFC 503.2.7 and MVMC 8.36.050 Section I)

F24. Prior to issuance of the building permit for development, independent paved access to the nearest paved road, maintained by the City shall be designed and constructed by the developer within the public right of way in accordance with City Standards. (MVMC 8.36.050)

F25. Prior to construction, "private" driveways over 150 feet in length shall have a turn-around as determined by the Fire Prevention Bureau capable of accommodating fire apparatus. Driveway grades shall not exceed 12 percent. (CFC 503 and MVMC 8.36.050)

F26. Complete plans and specifications for fire alarm systems, fire-extinguishing systems (including automatic sprinklers or standpipe systems), clean agent systems (or other special types of automatic fire-extinguishing systems), as well as other fire-protection systems and appurtenances thereto shall be submitted to the Moreno Valley Fire Prevention Bureau for review and approval prior to system installation. Submittals shall be in accordance with CFC Chapter 9 and associated accepted national standards.

F27. A permit is required to maintain, store, use or handle materials, or to conduct processes which produce conditions hazardous to life or property, or to install equipment used in connection with such activities. Such permits shall not be construed as authority to violate, cancel or set aside any of the provisions of this code. Such permit shall not take the place of any license required by law. Applications for permits shall be made to the Fire Prevention Bureau in such form and detail as prescribed by the Bureau. Applications for permits shall be accompanied by such plans as required by the Bureau. Permits shall be kept on

the premises designated therein at all times and shall be posted in a conspicuous location on the premises or shall be kept on the premises in a location designated by the Fire Chief. Permits shall be subject to inspection at all times by an officer of the fire department or other persons authorized by the Fire Chief in accordance with Appendix Chapter 1 and MVMC 8.36.100.

F28. Approval of the safety precautions required for buildings being constructed, altered or demolished shall be required by the Fire Chief in addition to other approvals required for specific operations or processes associated with such construction, alteration or demolition. (CFC Chapter 14 & CBC Chapter 33)

F29. Prior to issuance of Certificate of Occupancy, permits are required to store, dispense, use or handle hazardous material. Each application for a permit shall include a hazardous materials management plan (HMMP). The location of the HMMP shall be posted adjacent to (other) permits when an HMMP is provided. The HMMP shall include a facility site plan designating the following:

a) Storage and use areas;
b) Maximum amount of each material stored or used in each area;
c) Range of container sizes;
d) Locations of emergency isolation and mitigation valves and devises;
e) Product conveying piping containing liquids or gases, other than utility-owned fuel gas lines and low-pressure fuel gas lines;
f) On and off positions of valves for valves which are of the self-indicating type;
g) Storage plan showing the intended storage arrangement, including the location and dimensions of aisles. The plans shall be legible and approximately to scale. Separate distribution systems are allowed to be shown on separate pages; and
h) Site plan showing all adjacent/neighboring structures and use.

NOTE: Each application for a permit shall include a hazardous materials inventory statement (HMIS).

F30. Before a Hazardous Materials permit is issued, the Fire Chief shall inspect and approve the receptacles, vehicles, buildings, devices, premises, storage spaces or areas to be used. In instances where laws or regulations are enforceable by departments other than the Fire Prevention Bureau, joint approval shall be obtained from all departments concerned. (CFC Appendix H)

F31. Construction or work for which the Fire Prevention Bureau's approval is required shall be subject to inspection by the Fire Chief and such construction or work shall remain accessible and exposed for inspection purposes until approved. (CFC Section 106)

F32. The Fire Prevention Bureau shall maintain the authority to inspect, as often as necessary, buildings and premises, including such other hazards or appliances designated by the Fire Chief for the purpose of ascertaining and causing to be corrected any conditions which would reasonably tend to cause fire or contribute to its spread, or any violation of the purpose or provisions of this code and of any other law or standard affecting fire safety. (CFC Section 106)

F33. Permit requirements issued, which designate specific occupancy requirements

for a particular dwelling, occupancy, or use, shall remain in effect until such time as amended by the Fire Chief. (CFC Section 104)

F34. In accordance with the California Fire Code Appendix Chapter 1, where no applicable standards or requirements are set forth in this code, or contained within other laws, codes, regulations, ordinances or bylaws adopted by the jurisdiction, compliance with applicable standards of the National Fire Protection Association or other nationally recognized fire safety standards as are approved shall be deemed as prima facie evidence of compliance with the intent of this code as approved by the Fire Chief. (CFC Section 102.7)

F35. Any alterations, demolitions, or change in design, occupancy and use of buildings or site will require plan submittal to the Fire Prevention Bureau with review and approval prior to installation. (CFC Appendix Chapter 1)

F36. Emergency and Fire Protection Plans shall be provided when required by the Fire Prevention Bureau. (CFC Section 105)

F37. Prior to Certificate of Occupancy all locations where medians are constructed and prohibit vehicular ingress/egress into or away from the site, provisions must be made to construct a median-crossover at all locations determined by the Fire Marshal and the City Engineer. Prior to the construction, design plans will be submitted for review and approval by the City Engineer and all applicable inspections conducted by Land Development Division.

F38. Prior to construction, all traffic calming designs/devices must be approved by the Fire Marshal and City Engineer.

Date:	10/08/12	**Address:**	
Case Number:	**PA11-0001 TO PA11-007, P11-004 AND 005**	**A.P.N.:**	**316-020-001, 006, 007, 028, 010**

This is certification the water system is capable of meeting the following required fire flows as determined by the California Fire Code Appendix B.

Based on the information provided on the above referenced case. The fire flow required for this project will be ___4000_ G.P.M. for duration of _4_-HOURS measured at 20-psi residual pressure.

The required fire flow may be adjusted during the approval process to reflect changes in design, construction type or automatic fire protection measures as approved by the Fire Prevention Bureau.

Applicant/ Developer: _____

By: _____ **Date:** _____

Title: _____

WATER AGENCY APPROVAL

Name of Agency: _____

Address: _____

Telephone: _____ **Date:** _____

By: _____ **Title:** _____

NOTE: **THE COMPLETION AND SUBMITTAL OF THIS LETTER TO THE FIRE PREVENTION BUREAU SHALL NOT BE CONSTRUED AS APPROVAL FOR THE INSTALLATION OF THE REQUIRED FIRE HYDRANT (S) AND/OR WATER SYSTEM.**

File: Fire Flow Letter City of Moreno Valley

CITY OF MORENO VALLEY
COMMUNITY & ECONOMIC DEVELOPMENT - LAND DEVELOPMENT DIVISION
CONDITIONS OF APPROVAL
PA11-0007 / TPM 35879 – Four Parcel Industrial Warehouse Subdivision
APN 316-020-032, 316-020-033, 316-020-034, 316-020-035, 316-020-036

Note: All Special Conditions are in **Bold** lettering and follow the standard conditions.

COMMUNITY & ECONOMIC DEVELOPMENT – LAND DEVELOPMENT DIVISION

The following are the Community & Economic Development Department – Land Development Division Conditions of Approval for this project and shall be completed at no cost to any government agency. All questions regarding the intent of the following conditions shall be referred to the Community & Economic Development Department – Land Development Division.

General Conditions

LD1. (G) The developer shall comply with all applicable City ordinances and resolutions including the City's Municipal Code (MC) and if subdividing land, the Government Code (GC) of the State of California, specifically Sections 66410 through 66499.58, said sections also referred to as the Subdivision Map Act (SMA). (MC 9.14.010)

LD2. (G) If the project involves the subdivision of land, maps may be developed in phases with the approval of the City Engineer. Financial security shall be provided for all improvements associated with each phase of the map. The boundaries of any multiple map increment shall be subject to the approval of the City Engineer. The City Engineer may require the dedication and construction of necessary utilities, streets or other improvements outside the area of any particular map, if the improvements are needed for circulation, parking, access, or for the welfare or safety of the public. (MC 9.14.080, GC 66412 and 66462.5)

LD3. (G) It is understood that the tentative map correctly shows all existing easements, traveled ways, and drainage courses, and that their omission may require the map or plans associated with this application to be resubmitted for further consideration. (MC 9.14.040)

LD4. (G) In the event right-of-way or offsite easements are required to construct offsite improvements necessary for the orderly development of the surrounding area to meet the public health and safety needs, the developer shall make a good faith effort to acquire the needed right-of-way in accordance with the Land Development Division's administrative policy. In the event that the developer is unsuccessful, he shall enter into an agreement with the City to acquire the necessary right-of-way or offsite easements and complete the improvements at such time the City acquires the right-of-way or offsite easements which will permit the improvements to be made. The developer shall be responsible for all costs associated with the right-of-way or easement acquisition. (GC 66462.5)

LD5. (G) If improvements associated with this project are not initiated within two years of the date of approval of the Public Improvement Agreement, the City Engineer may require that the improvement cost estimate associated with the project be modified to reflect current City construction costs in effect at the time of request for an extension of time for the Public Improvement Agreement or issuance of a permit.

LD6. (G) The developer shall monitor, supervise and control all construction and construction supportive activities, so as to prevent these activities from causing a public nuisance, including but not limited to, insuring strict adherence to the following:

a. Removal of dirt, debris, or other construction material deposited on any public street no later than the end of each working day.

b. Observance of working hours as stipulated on permits issued by the Public Works Department.

c. The construction site shall accommodate the parking of all motor vehicles used by persons working at or providing deliveries to the site.

d. All dust control measures per South Coast Air Quality Management District (SCAQMD) requirements shall be adhered to during the grading operations.

Violation of any condition or restriction or prohibition set forth in these conditions shall subject the owner, applicant, developer or contractor(s) to remedies as noted in the City Municipal Code 8.14.090. In addition, the City Engineer or Building Official may suspend all construction related activities for violation of any condition, restriction or prohibition set forth in these conditions until such time as it has been determined that all operations and activities are in conformance with these conditions.

LD7. (G) The developer shall protect downstream properties from damage caused by alteration of drainage patterns, i.e., concentration or diversion of flow. Protection shall be provided by constructing adequate drainage facilities, including, but not limited to, modifying existing facilities or by securing a drainage easement. (MC 9.14.110)

LD8. (G) Public drainage easements, when required, shall be a minimum of 25 feet wide and shall be shown on the map and plan, and noted as follows: “Drainage Easement – no structures, obstructions, or encroachments by land fills are allowed.” In addition, the grade within the easement area shall not exceed a 3:1 (H:V) slope, unless approved by the City Engineer.

LD9. (G) A detailed drainage study shall be submitted to the City Engineer for review and approval at the time of any improvement or grading plan submittal. The study shall be prepared by a registered civil engineer and shall include existing and proposed hydrologic conditions. Hydraulic calculations are required for all drainage control devices and storm drain lines. (MC 9.14.110). Prior to approval of the related improvement or grading plans, the developer shall submit the

approved drainage study, on compact disk, in (.pdf) digital format to the Land Development Division of the Community and Economic Development Department.

LD10. (G) Prior to final map approval, commencing applicable street improvements, or obtaining the first building permit, the developer shall enter into a Development Impact Fee (DIF) Improvement Credit Agreement to secure credit and reimbursement for the construction of applicable arterial street, traffic signal, and/or interchange improvements. If the developer fails to complete this agreement prior to the timing as specified above, no credits or reimbursements will be given. The applicant shall pay Arterial Streets, Traffic Signals, and Interchange Improvements development impact fees adopted by the City Council by resolution. (Ord. 695 § 1.1 (part), 2005) (MC 3.38.030, .040, .050)

LD11. (G) Prior to final map approval, commencing applicable street improvements, or obtaining the first building permit, the developer shall enter into a Transportation Uniform Mitigation Fee (TUMF) Improvement Credit Agreement to secure credit and reimbursement for the construction of applicable improvements. If the developer fails to complete this agreement by the timing as specified above, no credits or reimbursements will be given for any work. Prior to approval of the TUMF Improvement Credit Agreement, an approved engineer's cost estimate and street improvement plan are required.

LD12. (G) The final conditions of approval issued by the Planning Division subsequent to Planning Commission approval shall be photographically or electronically placed on mylar sheets and included in the Grading and Street Improvement plan sets on twenty-four (24) inch by thirty-six (36) inch mylar and submitted with the plans for plan check. These conditions of approval shall become part of these plan sets and the approved plans shall be available in the field during grading and construction.

Prior to Grading Plan Approval or Grading Permit

LD13. (GPA) Prior to approval of the grading plans, plans shall be drawn on twenty-four (24) inch by thirty-six (36) inch mylar and signed by a registered civil engineer and other registered/licensed professional as required.

LD14. (GPA) Prior to approval of grading plans, the developer shall ensure compliance with the City Grading ordinance, these Conditions of Approval and the following criteria:

a. The project street and lot grading shall be designed in a manner that perpetuates the existing natural drainage patterns with respect to tributary drainage area and outlet points. Unless otherwise approved by the City Engineer, lot lines shall be located at the top of slopes.

b. Any grading that creates cut or fill slopes adjacent to the street shall provide erosion control, sight distance control, and slope easements as approved by the City Engineer.

c. A grading permit shall be obtained from the Community and Economic Development Department Land Development Division prior to commencement of any grading outside of the City maintained road right-of-way.

d. All improvement plans are substantially complete and appropriate clearance and at-risk letters are provided to the City. (MC 9.14.030)

e. The developer shall submit a soils and geologic report to the Community and Economic Development Department – Land Development Division. The report shall address the soil's stability and geological conditions of the site.

LD15. (GPA) Prior to grading plan approval, the developer shall select and implement treatment control best management practices (BMPs) that are medium to highly effective for treating Pollutants of Concern (POC) for the project. Projects where National Pollution Discharge Elimination System (NPDES) mandates water quality treatment control best management practices (BMPs) shall be designed per the City of Moreno Valley guidelines or as approved by the City Engineer.

LD16. (GPA) Prior to approval of the grading plans for projects that will result in discharges of storm water associated with construction with a soil disturbance of one or more acres of land, the developer shall submit a Notice of Intent (NOI) and obtain a Waste Discharger's Identification number (WDID#) from the State Water Quality Control Board (SWQCB). The WDID# shall be noted on the grading plans prior to issuance of the first grading permit.

LD17. (GPA) Prior to the grading plan approval, or issuance of a building permit, if a grading permit is not required, the Developer shall submit two (2) copies of the final project-specific Water Quality Management Plan (WQMP) for review by the City Engineer that :

a. Addresses Site Design Best Management Practices (BMPs) such as minimizing impervious areas, maximizing permeability, minimizes directly connected impervious areas to the City's street and storm drain systems, and conserves natural areas;

b. Incorporates Source Control BMPs and provides a detailed description of their implementation;

c. Incorporates Treatment Control BMPs and provides information regarding design considerations;

d. Describes the long-term operation and maintenance requirements for BMPs requiring maintenance; and

e. Describes the mechanism for funding the long-term operation and maintenance of the BMPs.

A copy of the final WQMP template can be obtained on the City's Website or by contacting the Land Development Division of the Community and Economic Development Department.

LD18. (GPA) Prior to the grading plan approval, or issuance of a building permit, if a grading permit is not required, the Developer shall record a "Stormwater Treatment Device and Control Measure Access and Maintenance Covenant," to provide public notice of the requirement to implement the approved final project-specific WQMP and the maintenance requirements associated with the WQMP.

A boilerplate copy of the "Stormwater Treatment Device and Control Measure Access and Maintenance Covenant," can be obtained by contacting the Land Development Division of the Community and Economic Development Department.

LD19. (GPA) Prior to the grading plan approval, or issuance of a building permit, if a grading permit is not required, the Developer shall secure approval of the final project-specific WQMP from the City Engineer. The final project-specific WQMP shall be submitted at the same time of grading plan submittal. The approved final WQMP shall be submitted to the Storm Water Program Manager on compact disk(s) in Microsoft Word format prior to grading plan approval.

LD20. (GPA) Prior to the grading plan approval, or issuance of a building permit as determined by the City Engineer, the approved final project-specific WQMP shall be incorporated by reference or attached to the project's Storm Water Pollution Prevention Plan as the Post-Construction Management Plan.

LD21. (GPA) Prior to grading plan approval, the developer shall prepare a Storm Water Pollution Prevention Plan (SWPPP) in conformance with the state's Construction Activities Storm Water General Permit. A copy of the current SWPPP shall be kept at the project site and be available for review upon request. The SWPPP shall be submitted to the Storm Water Program Manager on compact disk(s) in Microsoft Word format.

LD22. (GPA) Prior to the approval of a grading plan, the developer shall comply with the rules and regulations of FEMA and City Ordinance 8.12.190 for development within a flood hazard area (defined as Zones A, AE, AH, A0 and A99).

a. For developments less required to submit a CLOMR-F/LOMR-F, the City requires the following prepared by a licensed civil engineer or land surveyor:

i. Prior to issuance of a grading permit, a Floodplain Development Permit (available from the City).
ii. A CLOMR-F (residential structures) unless otherwise approved by the City Engineer.
iii. Determination of BFE. Machinery and equipment servicing the structures shall be designed to be located above the BFE. For habitable structures, the lowest floor must be certified to be a minimum of one foot above the BFE; non-residential structures must be additionally dry floodproofed; for qualified non-habitable structures, the lowest floor must be wet floodproofed to one foot minimum above BFE.
iv. Prior to issuance of individual building permits, an elevation certificate shall be approved by the City.

v. Prior to issuance of first building permit for residential structures, submittal of LOMR-F package with appropriate fees to FEMA, unless otherwise approved by the City Engineer.
vi. Prior to issuance of individual certificate of occupancy, a final elevation/floodproof certificate (dependent on type of structure(s)).
vii. Prior to ninety percent reduction of public improvement securities, a LOMR-F approved by FEMA shall be submitted to the City.

LD23. (GPA) Prior to the approval of the grading plans, the developer shall pay applicable remaining grading plan check fees.

LD24. (GPA/MA) Prior to the later of either grading plan or final map approval, resolution of all drainage issues shall be as approved by the City Engineer.

LD25. (GP) Prior to issuance of a grading permit, or building permit when a grading permit is not required, for projects that require a project-specific Water Quality Management Plan (WQMP), a project-specific final WQMP (F-WQMP) shall be approved. Upon approval, a WQMP Identification Number is issued by the Storm Water Management Section and shall be noted on the rough grading plans as confirmation that a project-specific F-WQMP approval has been obtained.

LD26. (GP) Prior to issuance of a grading permit, if the fee has not already been paid prior to map approval or prior to issuance of a building permit if a grading permit is not required, the developer shall pay Area Drainage Plan (ADP) fees. The developer shall provide a receipt to the City showing that ADP fees have been paid to Riverside County Flood Control and Water Conservation District. (MC 9.14.100)

LD27. (GP) Prior to issuance of a grading permit, security, in the form of a cash deposit (preferable), letter of credit, or performance bond shall be required to be submitted as a guarantee of the completion of the grading required as a condition of approval of the project.

LD28. (GP) Prior to issuance of a grading permit, the developer shall pay the applicable grading inspection fees.

Prior to Map Approval or Recordation

LD29. (MA) Prior to approval of the map, the developer shall submit a copy of the Covenants, Conditions and Restrictions (CC&Rs) to the Land Development Division for review and approval. The CC&Rs shall include, but not be limited to, access easements, reciprocal access, private and/or public utility easements as may be relevant to the project.

LD30. (MA) Prior to approval of the map, all street dedications shall be irrevocably offered to the public and shall continue in force until the City accepts or abandons such offers, unless otherwise approved by the City Engineer. All dedications shall be free of all encumbrances as approved by the City Engineer.

LD31. (MA) Prior to approval of the map, security shall be required to be submitted as a guarantee of the completion of the improvements required as a condition of approval of the project. A public improvement agreement will be required to be executed.

LD32. (MR) Prior to recordation of the map, if the developer chooses to construct the project in construction phases, a Construction Phasing Plan for the construction of on-site public and private improvements shall be reviewed and approved by the City Engineer.

LD33. (MR) Prior to recordation of the map, the developer shall submit the map, on compact disks, in (.dxf) digital format to the Land Development Division of the Community and Economic Development Department.

Prior to Improvement Plan Approval or Construction Permit

LD34. (IPA) Prior to approval of the improvement plans, the improvement plans shall be drawn on twenty-four (24) inch by thirty-six (36) inch mylar and signed by a registered civil engineer and other registered/licensed professional as required.

LD35. (IPA) Prior to approval of the improvement plans, the developer shall submit clearances from all applicable agencies, and pay all outstanding plan check fees. (MC 9.14.210)

LD36. (IPA) All public improvement plans prepared and signed by a registered civil engineer in accordance with City standards, policies and requirements shall be approved by the City Engineer in order for the Public Improvement Agreement and accompanying security to be executed.

LD37. (IPA) Prior to approval of the improvement plans, securities and a public improvement agreement shall be required to be submitted and executed as a guarantee of the completion of the improvements required as a condition of approval of the project.

LD38. (IPA) The street improvement plans shall comply with all applicable City standards and the following design standards throughout this project:

a. Corner cutbacks in conformance with City Standard 208 shall be shown on the final map or, if no map is to be recorded, offered for dedication by separate instrument.

b. Lot access to major thoroughfares shall be restricted except at intersections and approved entrances and shall be so noted on the final map. (MC 9.14.100)

c. The minimum centerline and flow line grades shall be one percent unless otherwise approved by the City Engineer. (MC 9.14.020)

d. All street intersections shall be at ninety (90) degrees plus or minus five (5) degrees per City Standard No. 706A, or as approved by the City Engineer. (MC 9.14.020)

LD39. (IPA) Prior to approval of the improvement plans, the plans shall be based upon a centerline profile, extending beyond the project boundaries a minimum distance of 300 feet at a grade and alignment approved by the City Engineer. Design plan and profile information shall include the minimum 300 feet beyond the project boundaries.

LD40. (IPA) Prior to approval of the improvement plans, the plans shall indicate any restrictions on trench repair pavement cuts to reflect the City's moratorium on disturbing newly-constructed pavement less than three years old and recently slurry sealed streets less than one year old. Pavement cuts for trench repairs may be allowed for emergency repairs or as specifically approved in writing by the City Engineer.

LD41. (IPA) Prior to approval of the improvement plans, the developer is required to bring any existing access ramps adjacent to and fronting the project to current ADA (Americans with Disabilities Act) requirements. However, when work is required in an intersection that involves or impacts existing access ramps, those access ramps in that intersection shall be retrofitted to comply with current ADA requirements, unless approved otherwise by the City Engineer.

LD42. (IPA) Prior to approval of the improvement plans, drainage facilities with sump conditions shall be designed to convey the tributary 100-year storm flows. Secondary emergency escape shall also be provided. (MC 9.14.110)

LD43. (IPA) Prior to the approval of the improvement plans, the hydrology study shall show that the 10-year storm flow will be contained within the curb and the 100-year storm flow shall be contained within the street right-of-way. In addition, one lane in each direction shall not be used to carry surface flows during any storm event for street sections equal to or larger than a minor arterial. When any of these criteria is exceeded, additional drainage facilities shall be installed. (MC 9.14.110 A.2)

LD44. (IPA) The project shall be designed to accept and properly convey all off-site drainage flowing onto or through the site. All storm drain design and improvements shall be subject to review and approval of the City Engineer. In the event that the City Engineer permits the use of streets for drainage purposes, the provisions of the Development Code will apply. Should the quantities exceed the street capacity or the use of streets be prohibited for drainage purposes, as in the case where one travel lane in each direction shall not be used for drainage conveyance for emergency vehicle access on streets classified as minor arterials and greater, the developer shall provide adequate facilities as approved by the Community and Economic Development Department – Land Development Division. (MC 9.14.110)

LD45. (CP) All work performed within the City right-of-way requires a construction permit. As determined by the City Engineer, security may be required for work within the right-of-way. Security shall be in the form of a cash deposit or other

approved means. The City Engineer may require the execution of a public improvement agreement as a condition of the issuance of the construction permit. All inspection fees shall be paid prior to issuance of construction permit. (MC 9.14.100)

LD46. (CP) Prior to issuance of a construction permit, all public improvement plans prepared and signed by a registered civil engineer in accordance with City standards, policies and requirements shall be approved by the City Engineer.

LD47. (CP) Prior to issuance of construction permits, the developer shall submit all improvement plans on compact disks, in (.dxf) digital format to the Land Development Division of the Community and Economic Development Department.

LD48. (CP) Prior to issuance of construction permits, the developer shall pay all applicable inspection fees.

Prior to Building Permit

LD49. (BP) Prior to issuance of building permits, the map shall be recorded. (MC 9.14.090)

LD50. (BP) Prior to issuance of a building permit (excluding model homes), an approval by the City Engineer is required of the water quality control basin(s). The developer shall provide certification to the line, grade, flow test and system invert elevations.

LD51. (BP) Prior to issuance of a building permit, all pads shall meet pad elevations per approved plans as noted by the setting of “Blue-top” markers installed by a registered land surveyor or licensed engineer.

Prior to Certificate of Occupancy

LD52. (CO) Prior to issuance of a certificate of occupancy, the parcel map shall be recorded.

LD53. (CO) Prior to issuance of the last certificate of occupancy or building final, the developer shall pay all outstanding fees.

LD54. (CO) Prior to issuance of a certificate of occupancy, this project is subject to requirements under the current permit for storm water activities required as part of the National Pollutant Discharge Elimination System **(NPDES)** as mandated by the Federal Clean Water Act. In compliance with Proposition 218, the developer shall agree to approve the City of Moreno Valley NPDES Regulatory Rate Schedule that is in place at the time of certificate of occupancy issuance. Following are the requirements:

a. Select one of the following options to meet the financial responsibility to provide storm water utilities services for the required continuous operation,

maintenance, monitoring system evaluations and enhancements, remediation and/or replacement, all in accordance with Resolution No. 2002-46.

i. Participate in the mail ballot proceeding in compliance with Proposition 218, for the Common Interest, Commercial, Industrial and Quasi-Public Use NPDES Regulatory Rate Schedule and pay all associated costs with the ballot process; or

ii. Establish an endowment to cover future City costs as specified in the Common Interest, Commercial, Industrial and Quasi-Public Use NPDES Regulatory Rate Schedule.

b. Notify the Special Districts Division of the intent to request building permits 90 days prior to their issuance and the financial option selected. The financial option selected shall be in place prior to the issuance of certificate of occupancy. (California Government Code & Municipal Code)

LD55. (CO) The City of Moreno Valley has an adopted Development Impact Fee (DIF) nexus study. All projects unless otherwise exempted shall be subject to the payment of the DIF prior to issuance of occupancy. The fees are subject to the provisions of the enabling ordinance and the fee schedule in effect at the time of occupancy.

LD56. (CO) The City of Moreno Valley has an adopted area wide Transportation Uniform Mitigation Fee (TUMF). All projects unless otherwise exempted shall be subject to the payment of the TUMF prior to issuance of occupancy. The fees are subject to the provisions of the enabling ordinance and the fee schedule in effect at the time of occupancy.

LD57. (CO) Prior to issuance of a certificate of occupancy or building final, the developer shall construct all public improvements in conformance with applicable City standards, except as noted in the Special Conditions, including but not limited to the following applicable improvements:

a. Street improvements including, but not limited to: pavement, base, curb, gutter, cross gutter, spandrel, sidewalk, drive approaches, pedestrian ramps, bus turn outs, street lights, signing, striping, landscaping and irrigation, medians, pavement tapers/transitions and traffic control devices as appropriate.

b. Storm drain facilities including, but not limited to: storm drain pipe, storm drain laterals, catch basins and local depressions.

c. Sewer and water systems including, but not limited to: sanitary sewer, potable water and recycled water.

d. Under grounding of existing and proposed utility lines less than 115,000 volts. **All overhead utilities less than 115,000 volts within and along the project boundary will be required to be placed underground and all power poles removed.**

LD58. (CO) Prior to issuance of a certificate of occupancy or building final, all existing and new utilities adjacent to and on-site shall be placed underground in accordance with City of Moreno Valley ordinances. (MC 9.14.130)

LD59. (CO) Prior to issuance of a certificate of occupancy or building final, in order to treat for water quality the sub-area tributary to the basin, the Developer must comply with the following:

a. The water quality basin and all associated treatment control BMPs and all hardware per the approved civil drawing must be constructed, certified and approved by the City Engineer including, but not limited to, piping, forebay, aftbay, trash rack, etc.) Landscape and irrigation plans are not approved for installation at this time.

b. Provide the City with an Engineer's Line and Grade Certification.

c. Perform and pass a flow test per City test procedures.

LD60. (CO) Prior to issuance of a certificate of occupancy or building final for any Commercial/Industrial facility, whichever occurs first, the owner may have to secure coverage under the State's General Industrial Activities Storm Water Permit as issued by the State Water Resources Control Board.

LD61. (CO) Prior to issuance of a certificate of occupancy or building final, the applicant shall ensure the following, pursuant to Section XII. I. of the 2010 NPDES Permit:

a. Field verification that structural Site Design, Source Control and Treatment Control BMPs are designed, constructed and functional in accordance with the approved Final Water Quality Management Plan (WQMP)

b. Certification of best management practices (BMPs) from a state licensed civil engineer. An original WQMP BMP Certification shall be submitted to the City for review and approval.

<u>Prior to Acceptance of Streets into the City Maintained Road System</u>

LD62. (AOS) Aggregate slurry, as defined in Section 203-5 of Standard Specifications for Public Works Construction, may be required just prior to the end of the one-year warranty period of the public streets at the discretion of the City Engineer. If slurry is required, the developer/contractor must provide a slurry mix design submittal for City Engineer approval. The latex additive shall be Ultra Pave 70 (for anionic – per project geotechnical report) or Ultra Pave 65 K (for cationic – per project geotechnical report) or an approved equal. The latex shall be added at the emulsion plant after weighing the asphalt and before the addition of mixing water. The latex shall be added at a rate of two to two-and-one-half (2 to 2½) parts to one-hundred (100) parts of emulsion by volume. Any existing striping shall be removed prior to slurry application and replaced per City standards.

SPECIAL CONDITIONS

LD63. After obtaining entitlements, this project will be required to submit design plans for plan review (Rough Grading Plans, Precise Grading Plans Street Improvement Plans, Signing and Striping Plans, Traffic Control Plans, Traffic Signal Plans, Storm Drain Plans, Sewer and Water Plans, Final Parcel Map, and other plans to the Land Development Division. All engineering (Land Development) type plans shall be drawn on 24"x36" sheet size and use title block per City Standard 708.

LD64. (GPA) Prior to rough grading plan approval, this project shall demonstrate, via a final drainage study, that either the downstream facilities are capable of handling this development's increased runoff or that the increased runoff resulting from the development of this site is mitigated. Unless the downstream facilities are adequate, during no storm event shall the flow leaving the site in the developed condition be larger than that of the pre-developed condition. The drainage study shall analyze the following events: 1, 3, 6 and 24-hour duration events for the 2, 5, 10 and 100-year storm events. The applicant understands that additional detention measures, beyond those shown on the tentative map and preliminary drainage study, may be required.

LD65. (GPA) Prior to precise grading plan approval, this project shall meet all FEMA (Federal Emergency Management Agency) and City requirements for building in a 100 year flood zone (Zone A and Zone AO). This project shall submit for review and approval to FEMA a CLOMR-F (conditional letter of map revision based on fill). All requirements, as set forth by FEMA shall be adhered to, particularly the completion and submittal of FEMA application form MT-1, as well as all City Ordinance 8.12.130 requirements. The CLOMR-F shall be approved by FEMA prior to precise grading plan. The LOMR-F shall be acquired by FEMA after construction. The developer shall contact FEMA for CLOMR-F / LOMR-F requirements. As an alternative to the submittal of a CLOMR-F / LOMR-F, the developer may opt to flood proof the building per all City department requirements and City Ordinance 8.12.170 and as approved by FEMA. See FEMA Technical Bulletins TB 1-93, TB 3-93, and TB 7-93. Website: http://www.fema.gov/ Ph: 1-877-336-2627

LD66. (GPA) Prior to precise grading plan approval, the developer shall submit for review and approval a final soils report including site grading recommendations, especially pertaining to any import/fill relating to the CLOMR-F / LOMR-F requirement.

LD67. (GPA) Prior to precise grading plan approval, the grading plans shall clearly demonstrate that drainage is properly collected and conveyed. The plans shall show all necessary on-site and off-site drainage improvements to properly collect and convey drainage entering, within and leaving the project. This may include, but not be limited to on-site and perimeter drainage improvements to properly convey drainage within and along the project site, and downstream off-site improvements. The developer will be required to obtain the necessary permission for offsite construction including easements, including an encroachment permit for the

connection(s) to the Riverside County Flood Control and Water Conservation District (RCFC&WCD) channel.

LD68. (GPA) Prior to precise grading plan approval, emergency overflow areas shall be shown at all applicable drainage improvement locations in the event that the drainage improvement fails or exceeds full capacity. This may include, but not be limited to, an emergency spillway in the basins and an emergency overflow at any sump catch basin location. Alternatively, the engineer may submit for review and approval oversized catch basin inlets, or other acceptable design, as approved by the City Engineer.

LD69. (GPA) Prior to precise grading plan approval, the plans shall clearly demonstrate that all applicable recommendations from the geotechnical investigation prepared by NorCal Engineering on January 3, 2007 (NorCal Project Number 13461-06), and/or any subsequent report, have been adhered to including, but not limited to, grading operation procedures, structural section design, slab design, wall design, etc.

LD70. (GPA) Prior to precise grading plan approval, the grading plans shall show any proposed trash enclosure as dual bin trash enclosures, one bin for trash and one bin for recyclables. The trash enclosure shall be per City Standard Plan 627, modified to include a fully covered, solid roof.

LD71. (GPA) Prior to precise grading plan approval, the grading plans shall clearly show that the parking lot conforms to City standards. The parking lot shall be 5% maximum, 1% minimum for AC pavement, 0.50% for PCC, 2% maximum at or near any disabled parking stall and travel way. Ramps, curb openings and travel paths shall all conform to current ADA standards as outlined in Department of Justice's "ADA Standards for Accessible Design", Excerpt from 28 CFR Part 36. (www.usdoj.gov).

LD72. (GPA) Prior to precise grading plan or improvement plan approval, as applicable, the plans shall show all driveway approaches where truck movements are anticipated to be constructed City Standard Plan 118C, modified. The driveways shall transition from an 8" curb height to a 0" curb height at the conventional right-of-way 12' behind the curb line, or as approved by the City Engineer. There shall be 4' wide pedestrian sidewalk area at 2% maximum behind the conventional right-of-way. A 4-foot pedestrian right-of-way dedication shall be made on the final parcel map PM 35879.

LD73. (GPA) Prior to precise grading plan approval, the plans shall show roof drains directed to a landscaped area rather than being routed directly to the parking lot. Alternatively, roof drain flows can be directed to private storm drains which will connect to the treatment control best management practice.

LD74. (IPA) Prior to improvement plan approval, this developer shall acquire the required clearances and permits from all applicable agencies, particularly RCFC&WCD.

LD75. (IPA) Prior to improvement plan approval, additional catch basins may be required by the City Engineer along project perimeter streets where street grades are less than 1%. Spacing, sizing and location shall be determined per the final drainage study as approved by the City Engineer.

LD76. (MA) Prior to parcel map approval, the map shall show the following:

a. A 20' street right-of-way dedication on the south side of Iris Avenue along this project's north frontage to ensure a centerline to south right-of-way distance of 50' for an Arterial, City Standard 104A, except where right-of-way has already been dedicated per Instrument No. 2009-0228079 on May 7, 2009.

b. A 78' street right-of-way dedication, 39' north and south of proposed future Krameria Avenue centerline between Cosmos Street and Heacock Street, south of Parcel 1, to ensure a right-of-way distance of 78' for an Industrial Collector Street, City Standard 106.

c. A 39' west-half, street right-of-way dedication and half-width cul-de-sac at the northern terminus of Cosmos Street along this project's east frontage to ensure a centerline to west right-of-way distance of 39' for an Industrial Collector Street, City Standard 106 and City Standard 123.

d. Additional right-of-way for the east half of the Cosmos Street cul-de-sac bulb shall be secured from the adjacent property owner by separate instrument, unless the parcel map for the easterly, adjacent project records first.

e. An additional 10' of right-of-way on the east side of Heacock Street and the south side of Iris Avenue necessary for proposed bus turnouts, as required by the City's Transportation Department, per City Standard 121.

f. A 4' pedestrian right-of-way dedication behind all driveway approaches per City Standard 118C.

g. Corner cutbacks per City Standard 208 to accommodate 50-foot required curb returns at the intersections of Heacock Street and Krameria Avenue and Heacock Street and Iris Avenue.

h. A 1.5' sidewalk easement behind the right-of-way on the east side of Heacock Street where the sidewalk is to be curb-separated

i. A 2' sidewalk easement behind the right-of-way on the south side of Iris Avenue where the sidewalk is to be curb-separated.

j. Two 25' easements for storm drain purposes, shown as Proposed Easement Note "B" on the tentative parcel map, one coinciding with the southerly drive aisle and the other along the westerly drive aisle within Parcel 2. All public storm drain easements shall be a minimum of 25' in width.

k. A 15' easement for sanitary sewer purposes, shown as Proposed Easement Note "A" on the tentative parcel map, coinciding with the westerly drive aisle within Parcel 2.

l. The vacation of existing Krameria Avenue 44' of right-of-way along the south property line of Parcels 2 and 4.

m. The vacation of an unnamed cul-de-sac street 60-foot right-of-way traversing proposed Parcels 2 and 3 as shown on the tentative parcel map.

LD77. (MA) Prior to parcel map approval, the Developer shall guarantee the construction of the following improvements by entering into a public improvement agreement and posting security. The improvements shall be completed prior to occupancy of the first building or as otherwise determined by the City Engineer.

a. Heacock Street, Arterial, City Standard 104A modified (100' RW / 76' CC) shall be constructed to full-width along the entire project's west frontage. Improvements shall consist of, but not be limited to, pavement, base, curb, gutter, sidewalk (modified to be curb-separated with the back of walk 1.5' behind the traditional right-of-way) (east side only), raised median at the south leg of its intersection with Iris Avenue, a guardrail on the west side of Heacock Street as required by the City Engineer, driveway approaches, bus turnout, drainage structures, any necessary offsite improvement transition/joins to existing, streetlights, pedestrian ramps, and dry and wet utilities. This project shall coordinate closely with the City's current CIP (Capital Improvement Project) Heacock Street Improvement Project for the design and construction of Heacock Street. The Capital Project Division's main line is (951) 413-3130.

b. Iris Avenue, Arterial, City Standard 104A (100' RW / 76' CC) shall be constructed to half-width plus an additional 18' north of the construction/proposed centerline, along the entire project's north frontage. A 20' right-of-way dedication on the south side of the street, along the project's north property line except where right-of-way has been previously dedicated per Instrument No. 2009-0228079 on May 7, 2009, shall be shown on the parcel map. Improvements shall consist of, but not be limited to, pavement, base, curb, gutter, sidewalk (modified to be curb-separated with the back of walk 2' behind the traditional right-of-way), bus turnout, raised median on the east leg of its intersection with Heacock Street, driveway approaches, drainage structures, any necessary offsite improvement transition/joins to existing, streetlights, pedestrian ramps, and dry and wet utilities.

c. Cosmos Street, Industrial Collector, City Standard 106 (78' RW / 56' CC) shall be constructed to half-width plus an additional 18' east of the centerline, along the entire project's east frontage. A 39' right-of-way dedication on the west side of the street and additional right-of-way

required for the proposed cul-de-sac at the street's northerly end, along the project's east property line, shall be shown on the parcel map. The 18' of right-of-way on the east side of the centerline including additional right-of-way for the cul-de-sac bulb shall be acquired if not already dedicated by the adjacent property. Improvements shall consist of, but not be limited to, pavement, base, curb, gutter, sidewalk, driveway approaches, drainage structures, any necessary offsite improvement transition/joins to existing, streetlights, pedestrian ramps, and dry and wet utilities. The cul-de-sac at the north end of the Cosmos Street terminus shall be constructed per City Standard 123.

d. Krameria Avenue, Industrial Collector, City Standard 106 (78' RW / 56' CC) shall be constructed to full-width, along the entire project's southerly property line of Parcel 1. A 78' right-of-way dedication shall be shown on the parcel map. Improvements shall consist of, but not be limited to, pavement, base, curb, gutter, sidewalk, driveway approaches, drainage structures, streetlights, pedestrian ramps, and dry and wet utilities.

e. Driveway approaches shall be constructed per City Standard No. 118C, modified. The parcel map shall show an additional 4-foot right-of-way dedication behind driveway approaches. No decorative pavers shall be placed within the public right-of-way.

f. Pavement core samples of existing pavement may be taken and findings submitted to the City for review and consideration of a lesser width of pavement improvements. The City will determine the adequacy of the existing pavement structural section. If the existing pavement section is found to be adequate, then a lesser width than that specified above for street pavement improvements may be allowed, as approved by the City Engineer. If the existing pavement section is found to be inadequate, the Developer shall construct the streets to the limits as listed above.

g. All curb returns and driveway aprons where truck movements are expected shall have a radius of 50' minimum. This shall include the curb return at the southeast corner of Heacock Street and Iris Avenue, both curb returns at the "T" intersection of Heacock Street and proposed Krameria Avenue and all driveways along Heacock Street, Krameria Avenue, and Cosmos Street, or as otherwise directed by the City's Transportation Division.

LD78. (MA) Prior to parcel map approval, written permission must be obtained from off-site property owner(s) for all off-site grading and easements. All on-site and off-site easements shall be shown on the final map. This shall include, but not be limited to, the proposed driveway which straddles this project's southeast corner of APN 316-020-028 and the off-site property to the south, APN 316-100-036.

LD79. (MA) Prior to parcel map approval, this project shall submit for review a reciprocal access agreement between Parcel 2 and the off-site property

south of Parcel 2, APN 316-100-036, if the intention is for reciprocal access amongst parcels, else this project shall submit for review and approval an access easement from off-site APN 316-100-036 in favor of this project's Parcel 2, via separate instrument.

LD80. (BP) Prior to issuance of a building permit, the final parcel map shall record including easement and right-of-way dedications and street vacations proposed therein.

LD81. (OC) Prior to occupancy permit issuance, all overhead utility lines less than 115,000 volts fronting or within the entire project site boundary shall be placed underground per Section 9.14.130C of the City Municipal Code.

LD82. In accordance with the City of Moreno Valley standards, the Double Ring Infiltrometer field testing method shall be utilized to perform in-situ percolation testing in the location of proposed infiltration area treatment control Best Management Practice (BMP) and the results included in the Final WQMP.

LD83. The Preparer shall provide complete and documented calculations for the proposed treatment control BMPs.

LD84. The Applicant shall prepare and submit for approval a Project Specific Final Water Quality Management Plan (F-WQMP) for PA11-0007 formerly PA07-0151 -March Business Center. The F-WQMP shall be consistent with the approved P-WQMP and in full conformance with the document; "Riverside County Water Quality Management Plan for Urban Runoff" dated July 24, 2006. The F-WQMP shall be submitted and approved prior to application for and issuance of grading or building permits. At a minimum, the F-WQMP shall include the following: Site Design BMPs; Source Control BMPs; Treatment Control BMPs; Operation and Maintenance requirements for BMPs; and sources of funding for BMP implementation.

LD85. The Applicant shall select and implement treatment control BMPs that are medium to highly effective for treating Pollutants of Concern (POC) for the project. POC include project pollutants associated with a 303(d) listing or a Total Maximum Daily Load (TMDL) for receiving waters. Project pollutants of concern include: sediment/turbidity, nutrients, organic compounds, oxygen demanding substances, and pathogens (bacteria and viruses). Exhibit C of the document, "Riverside County Water Quality Management Plan for Urban Runoff" dated July 24, 2006 shall be consulted for determining the effectiveness of proposed treatment BMPs.

LD86. The Applicant has proposed to incorporate the use of catch basin 'filter inserts and infiltration basins with underdrain systems. Final design details of these filtration and infiltration systems must be provided in the first submittal of the F-WQMP. The size of the treatment control BMP is to be determined using the procedures set forth in Exhibit C of the Riverside County Guidance Document. The Applicant acknowledges that more area than currently shown on the plans may be required to treat site runoff as required by the WQMP Guidance.

LD87. The Applicant shall substantiate the applicable Hydrologic Condition of Concern (HCOC) (WQMP Section IV) in the F-WQMP. The HCOC designates that the project will comply with Condition A; therefore, the condition must be addressed in the F-WQMP.

LD88. The Applicant shall, prior to building or grading permit closeout or the issuance of a certificate of occupancy, demonstrate:

a. That all structural BMPs have been constructed and installed in conformance with the approved plans and specifications;

b. That all structural BMPs described in the F-WQMP have been implemented in accordance with approved plans and specifications;

c. That the Applicant is prepared to implement all non-structural BMPs included in the F-WQMP, conditions of approval, and building/grading permit conditions; and

d. That an adequate number of copies of the approved F-WQMP are available for the future owners/occupants of the project.

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
Case No: PA11-0007 (TPM 35879)
APNs: 316-020-032, -033, -034, -035, and -035
10.08.12 Revised

PUBLIC WORKS DEPARTMENT

Special Districts Division

Note: All Special Conditions, Modified Conditions, or Clarification of Conditions are in bold lettering. All other conditions are standard to all or most development projects.

Acknowledgement of Conditions

The following items are Special Districts' Conditions of Approval for project **PA11-0007**; this project shall be completed at no cost to any Government Agency. All questions regarding Special Districts' Conditions including but not limited to, intent, requests for change/modification, variance and/or request for extension of time shall be sought from the Special Districts Division of the Public Works Department 951.413.3480 or by emailing specialdistricts@moval.org.

General Conditions

SD-1 The parcel(s) associated with this project have been incorporated into the Moreno Valley Community Services Districts Zones A (Parks & Community Services) and C (Arterial Street Lighting). All assessable parcels therein shall be subject to annual Zone A and Zone C charges for operations and capital improvements.

SD-2 Plans for parkway, median, slope, and/or open space landscape areas designated on the tentative map or in these Conditions of Approval for incorporation into Moreno Valley Community Services District **Zone M**, shall be prepared and submitted in accordance with the *City of Moreno Valley Public Works Department Landscape Design Guidelines*. Contact the Special Districts Division of the Public Works Department to obtain copies of this document.

SD-3 The developer, or the developer's successors or assignees shall be responsible for all parkway and/ or median landscape maintenance for a period of one (1) year as per the *City of Moreno Valley Public Works Department Landscape Design Guidelines,* or until such time as the District accepts maintenance responsibilities.

SD-4 Any damage to existing landscape areas maintained by the Moreno Valley Community Services District due to project construction shall be

repaired/replaced by the developer, or developer's successors in interest, at no cost to the Moreno Valley Community Services District.

SD-5 Plan check fees for review of parkway/median landscape plans for improvements that shall be maintained by the Moreno Valley Community Services District are due upon the first plan submittal. (MC 3.32.040)

SD-6 Inspection fees for the monitoring of landscape installation associated with Moreno Valley Community Services District maintained parkways/medians are due prior to the required pre-construction meeting. (MC 3.32.040)

SD-7 Streetlight Authorization forms, for all streetlights that are conditioned to be installed as part of this project, must be submitted to the Special Districts Division for approval, prior to streetlight installation. The Streetlight Authorization form can be obtained from the utility company providing electric service to the project, either Moreno Valley Utility or Southern California Edison.

Prior to Recordation of Final Map

SD-8 (R) This project has been identified to be included in the formation of a Community Facilities District (Mello-Roos) for **Public Safety** services, including but not limited to Police, Fire Protection, Paramedic Services, Park Rangers, and Animal Control services. The property owner(s) shall not protest the formation; however, they retain the right to object to the rate and method of maximum special tax. In compliance with Proposition 218, the developer shall agree to approve the mail ballot proceeding (special election) for either formation of the CFD or annexation into an existing district that may already be established. The Developer must notify Special Districts of intent to record final map 90 days prior to City Council action authorizing recordation of the map. (California Government Code)

SD-9 (R) This project is conditioned to provide a funding source for the capital improvements and/or maintenance for the **Heacock St. and Iris Ave.** median landscape. In order for the Developer to meet the financial responsibility to maintain the defined service, one of the options as outlined below shall be selected. The Developer must notify Special Districts of intent to record final map 90 days prior to City Council action authorizing recordation of the map and the financial option selected to fund the continued maintenance.

a. Participate in a ballot proceeding for **improved median maintenance** and pay all associated costs with the ballot process and formation costs, if any. Financing may be

structured through a Community Services District zone, Community Facilities District, Landscape and Lighting Maintenance District, or other financing structure as determined by the city; or

b. Establish an endowment to cover the future maintenance costs of the landscaped area.

The financial option selected shall be in place prior to the issuance of certificate of occupancy.

SD-10 *Commercial* (R) If Land Development, a Division of the Community and Economic Development Department, requires this project to supply a funding source necessary to provide, but not limited to, stormwater utilities services for the monitoring of on site facilities and performing annual inspections of the affected areas to ensure compliance with state mandated stormwater regulations, the developer must notify Special Districts of intent to record final map 90 days prior to City Council action authorizing recordation of the map and the financial option selected to fund the continued maintenance. (California Government Code)

SD-11 (R) Prior to recordation of the final map, the developer, or the developer's successors or assignees, shall record with the County Recorder's Office a **Covenant of Assessments** for each assessable parcel therein, whereby the developer covenants the existence of the Moreno Valley Community Services District, its established benefit zones, and that said parcel(s) is (are) liable for payment of annual benefit zone charges and the appropriate National Pollutant Discharge Elimination System (NPDES) maximum regulatory rate schedule when due. A copy of the recorded Covenant of Assessments shall be submitted to the Special Districts Division. For a copy of the Covenant of Assessments form, please contact Special Districts, phone 951.413.3480.

Prior to Building Permit Issuance

SD-12 (BP) Prior to the issuance of the first building permit for this project, the developer shall pay Advanced Energy fees for all applicable Zone B (Residential Street Lighting) and/or Zone C (Arterial Street Lighting and Intersection Lighting) streetlights required for this development. Payment shall be made to the City of Moreno Valley, as collected by the Land Development Division, based upon the Advanced Energy fee rate in place at the time of payment, as set forth in the current Listing of City Fees, Charges and Rates, as adopted by City Council.

The developer shall provide a receipt to the Special Districts Division showing that the Advanced Energy fees have been paid in full for the

number of streetlights to be accepted into the CSD Zone B and/or Zone C programs. Any change in the project which may increase the number of streetlights to be installed will require payment of additional Advanced Energy fees at the then current fee.

SD-13 (BP) Final median, parkway, slope, and/or open space landscape/irrigation plans for those areas designated on the tentative map or in these Conditions of Approval for inclusion into Community Services District shall be reviewed and approved by the Community and Economic Development Department–Planning Division, and the Public Works Department–Special Districts and Transportation Divisions prior to the issuance of the first Building Permit.

Prior to Certificate of Occupancy

SD-14 (CO) All parkway and/or median landscaping specified in the tentative map or in these Conditions of Approval shall be constructed prior to the issuance of the Certificate of Occupancy/Building Final for the **1st building** for this project.

SD-15 (CO) Landscape and irrigation plans for parkway, median, slope, and/or open space landscape areas designated for incorporation into Moreno Valley Community Services District shall be placed on compact disk (CD) in pdf format. The CD shall include "As Built" plans, revisions, and changes. The CD will become the property of the City of Moreno Valley and the Moreno Valley Community Services District.

CITY OF MORENO VALLEY

CONDITIONS OF APPROVAL
PA11-0001 through 0007
Proposal for four industrial buildings totaling approximately 1.5 million square feet located on the southeast corner of Heacock Street and Iris Avenue.

Note: All Special conditions are in bold lettering. All other conditions are standard to all or most development projects.

Transportation Engineering Division – Conditions of Approval

Based on the information contained in our standard review process we recommend the following conditions of approval be placed on this project:

GENERAL CONDITIONS

TE1. Conditions of approval may be modified if project is phased or altered from any approved plans.

TE2. Cul-de-sacs shall be designed and constructed per City Standard Plan No. 123 and/or 124.

TE3. Iris Avenue is classified as an Arterial (100'RW/76'CC) per City Standard Plan No. 104A. Design/construction shall include the following:

- **A Class III Bikeway shall be provided along Iris Avenue.**
- **Traffic Signal Interconnect shall be installed along Iris Avenue per City Standard Plan No. 421.**
- **A raised median shall be constructed from Heacock Street to approximately 50 feet east of the westernmost driveway.**

TE4. Heacock Street is classified as an Arterial (100' RW/76' CC) per City Standard Plan No. 104A, modified as necessary due to the MARB perimeter. Design/construction shall include the following:

- **A Class III Bikeway shall be provided along Heacock Street.**
- **Traffic Signal Interconnect shall be installed along Heacock Street per City Standard Plan No. 421.**
- **A raised landscape median shall be constructed on the south leg of the Heacock Street/Iris Avenue intersection (approximately 50 to 100 feet in length).**
- **A northbound right turn lane at the Heacock Street/Iris Avenue intersection.**
- **Metal Beam Guardrail shall be installed as required by the City Engineer.**

TE5. Krameria Avenue is reclassified as an Industrial Collector (78'RW/56'CC) per City Standard Plan No. 106.

TE6. "A" Street is designated as an Industrial Collector (78'RW/56'CC) per City Standard Plan No. 106.

PRIOR TO GRADING PERMIT

TE7. (GP) Prior to issuance of a grading permit, the project applicant shall submit an engineer's cost estimate for a raised landscape median along Iris Avenue (from 50' east of the westernmost driveway to the eastern property boundary) for the City Engineer's approval.

TE8. (GP) Prior to issuance of a grading permit, the project applicant shall submit conceptual striping plans for improvements identified in conditions TE13 and TE14 for the City Traffic Engineer's approval.

PRIOR TO IMPROVEMENT PLAN APPROVAL OR CONSTRUCTION PERMIT

TE9. Driveways shall conform to Section 9.11.080, and Table 9.11.080-14 of the City's Development Code – Design Guidelines and City of Moreno Valley Standard No. 118C for commercial driveway approach. Driveways wider than City standards (maximum of 40 feet) shall be constructed as an intersection with access ramps per City Standard 214A, including any necessary signing and markings, as determined by the City Traffic Engineer.

TE10. Prior to the final approval of the street improvement plans, a signing and striping plan shall be prepared per City of Moreno Valley Standard Plans - Section 4 for all streets with a cross section of 66'/44' and wider.

TE11. Prior to issuance of a construction permit, construction traffic control plans prepared by a qualified, Registered Civil or Traffic engineer may be required.

TE12. Sight distance at driveways and on streets shall conform to City of Moreno Valley Standard No. 125 A, B, and C at the time of preparation of final grading, landscape, and street improvements.

TE13. Prior to the final approval of the street improvement plans, the project applicant shall design the intersection of Heacock Street and Krameria Avenue to provide the following geometrics:

Northbound: One through lane, one shared through/right turn lane
Southbound: One left turn lane, two through lanes
Eastbound: NA
Westbound: One left turn lane, one right turn lane

NOTE: All curb return radii shall be 50 feet.

TE14. Prior to the final approval of the street improvement plans, the project applicant shall design the intersection of Heacock Street and Iris Avenue to provide the following geometrics:

Northbound: Two through lanes, one right turn lane
Southbound: Two left turn lanes, one through lane
Eastbound: NA
Westbound: Two left turn lanes, one right turn lane

NOTE: All curb return radii shall be 50 feet. Design shall include a raised landscape median on the south leg of the intersection. The median shall be approximately 50 to 100 feet in length. A raised landscape median shall also be required on the east leg of the intersection to a point approximately 50 feet east of the westernmost driveway.

TE15. Prior to final approval of the street improvement plans, the project applicant shall design a bus bay per City Standard Plan No. 121 for eastbound Iris Avenue, east of Heacock Street as well as northbound Heacock Street, north of Krameria Avenue.

PRIOR TO BUILDING PERMIT

TE16. (BP) Prior to issuance of a building permit, traffic signal plans shall be prepared by a registered civil or electrical engineer and shall be submitted to the City Traffic Engineer for the following intersections:

- **Heacock Street at Iris Avenue,**
- **Heacock Street at Krameria Street,**
- **Heacock Street at Gentian Avenue (roadway transitions on the south leg may be necessary to align lanes through intersection).**

TE17. (BP) Prior to issuance of a Building Permit, the project applicant shall pay all fair-share contributions per the FEIR Mitigation Measures 4.11-3 and 4.11-4.

TE18. (BP) Prior to issuance of a building permit, the project applicant shall make a fair-share contribution in the amount of $42,805 to the City of Moreno Valley for the construction of a traffic signal at Perris Boulevard and Suburban Lane. As this traffic signal is not in any existing fee program, payment of DIF and/or TUMF are not considered satisfaction of this obligation.

TE19. (BP) Prior to issuance of a building permit, the project applicant shall pay to the City of Moreno Valley 50 percent of the estimated cost for a raised median along Iris Avenue (from 50' east of the westernmost driveway to the eastern property boundary) as established by condition TE7. As this raised median is not in any existing fee program, payment of DIF and/or TUMF are not

considered satisfaction of this obligation. The raised median will be constructed at a future date when warranted.

PRIOR TO CERTIFICATE OF OCCUPANCY OR BUILDING FINAL

TE20. (CO) Prior to issuance of a certificate of occupancy, all approved signing and striping shall be installed per current City Standards and the approved plans.

TE21. (CO) Each gated entrance shall be provided with the following, or as approved by the City Traffic Engineer:

a) A storage lane with a minimum of 75 feet queuing length for entering traffic.
b) Appropriate signing and striping.

All of these features must be kept in working order.

TE22. (CO) Prior to the issuance of a certificate of occupancy, the project applicant shall construct the traffic signals identified in TE16. Construction shall be completed per the approved plans and coordinated with the street improvements.

TE23. (CO) Prior to issuance of a certificate of occupancy, the project applicant shall construct the intersection/roadway improvements identified in TE13, TE14, and TE15 per the approved plans.

TE24. (CO) Prior to the issuance of a certificate of occupancy for the project, driveway access at the following locations will be installed as follows:

- **Westernmost Iris Avenue driveway: Right-in, right-out access restricted by means of a raised median.**
- **Center and Easternmost Iris Avenue driveways: Full access, restricted to right-in, right-out access in the future when a raised median is warranted.**
- **Heacock Street Driveways: Full Access.**
- **Krameria Avenue Driveways: Full access.**
- **"A" Street Driveways: Full Access.**

NOTE: All truck driveways shall have curb return radii of 50 feet.

PRIOR TO ACCEPTANCE OF STREETS INTO THE CITY-MAINTAINED ROAD SYSTEM

TE25. Prior to the acceptance of streets into the City-maintained road system, all approved traffic control and signing and striping shall be installed per current City Standards and the approved plans.

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
Case No: PA11- 0001 through PA11 – 0007, P11- 004, and P11-005
APN: 316-020-032 through 036

PUBLIC WORKS DEPARTMENT

Moreno Valley Utility

Note: All Special Conditions, Modified Conditions, or Clarification of Conditions are in bold lettering. All other conditions are standard to all or most development projects.

Acknowledgement of Conditions

The following items are Moreno Valley Utility's Conditions of Approval for project(s) PA11-0001 through PA11–0007, P11-004, and P11-005; this project shall be completed at no cost to any Government Agency. All questions regarding Moreno Valley Utility's Conditions including but not limited to, intent, requests for change/modification, variance and/or request for extension of time shall be sought from Moreno Valley Utility (the Electric Utility Division) of the Public Works Department 951.413.3500. The applicant is fully responsible for communicating with Moreno Valley Utility staff regarding their conditions.

PRIOR TO RECORDATION OF FINAL MAP

MVU-1 (R) For single family subdivisions, a three foot easement along each side yard property line shall be shown on the final map and offered for dedication to the City of Moreno Valley for public utility purposes, unless otherwise approved by the City Engineer. If the project is a multi-family development, townhome, condominium, apartment, commercial or industrial project, and it requires the installation of electric distribution facilities within common areas, a non-exclusive easement shall be provided to Moreno Valley Utility to include all such common areas. All easements shall include the rights of ingress and egress for the purpose of operation, maintenance, facility repair, and meter reading.

PRIOR TO ISSUANCE OF BUILDING PERMIT

MVU-2 (BP) **City of Moreno Valley Municipal Utility Service – Electrical Distribution**: Prior to issuance of building permit, the developer shall submit a detailed engineering plan showing design, location and schematics for the utility system to be approved by the City Engineer. In accordance with Government Code Section 66462, the Developer **shall** execute an agreement with the City providing for the installation, construction, improvement and dedication of the utility system following recordation of final map and concurrent with trenching operations and other subdivision improvements so

long as said agreement incorporates the approved engineering plan and provides financial security to guarantee completion and dedication of the utility system.

The Developer **shall** coordinate and receive approval from the City Engineer to install, construct, improve, and dedicate to the City, or the City's designee, all utility infrastructure (including but not limited to conduit, equipment, vaults, ducts, wires, switches, conductors, transformers, resistors, amplifiers, and "bring-up" facilities including electrical capacity to serve the identified development and other adjoining/abutting/ or benefiting projects as determined by Moreno Valley Utility) – collectively referred to as "utility system" (to and through the development), along with any appurtenant real property easements, as determined by the City Engineer to be necessary for the distribution and /or delivery of any and all "utility services" to each lot and unit within the Tentative Map. For purposes of this condition, "utility services" shall mean electric, cable television, telecommunication (including video, voice, and data) and other similar services designated by the City Engineer. "Utility services" shall not include sewer, water, and natural gas services, which are addressed by other conditions of approval. Properties within development will be subject to an electrical system capacity charge and that contribution will be collected prior to issuance of building permits.

The City, or the City's designee, shall utilize dedicated utility facilities to ensure safe, reliable, sustainable and cost effective delivery of utility services and maintain the integrity of streets and other public infrastructure. Developer shall, at developer's sole expense, install or cause the installation of such interconnection facilities as may be necessary to connect the electrical distribution infrastructure within the project to the Moreno Valley Utility owned and controlled electric distribution system. Alternatively, developer may cause the project to be included in or annexed to a community facilities district established or to be established by the City for the purpose of financing the installation of such interconnection and distribution facilities. The project shall be deemed to have been included in or annexed to such a community facilities district upon the expiration of the statute of limitations to any legal challenges to the levy of special taxes by such community facilities district within the property. The statute of limitations referred to above will expire 30 days after the date of the election by the qualified electors within the project to authorize the levy of special taxes and the issuance of bonds.

MVU-3 This project may be subject to a Reimbursement Agreement. The project may be responsible for a proportionate share of costs associated with electrical distribution infrastructure previously installed that directly benefits the project. The project may be subject to a system wide capacity charge in addition to the referenced reimbursement agreement. Payment(s) shall be required prior to issuance of building permit(s).

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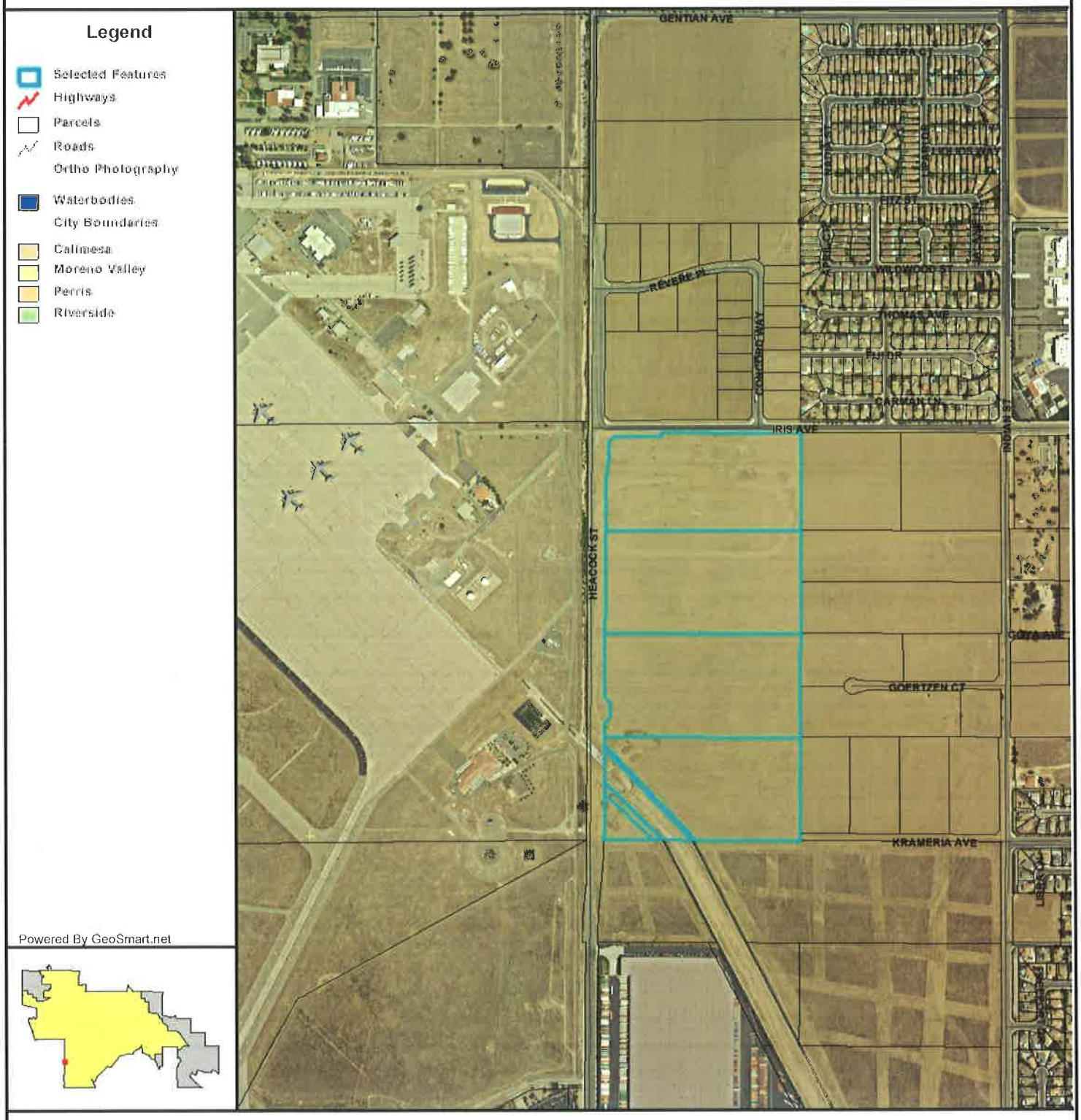
Ortho Map

March Business Center



City of Moreno Valley
14177 Frederick St
Moreno Valley, CA 92553

DISCLAIMER: The information shown on this map was compiled from the Riverside County GIS and the City of Moreno Valley GIS. The land base and facility information on this map is for display purposes only and should not be relied upon without independent verification as to its accuracy. Riverside County and City of Moreno Valley will not be held responsible for any claims, losses, or damages resulting from the use of this map.

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Zoning Map

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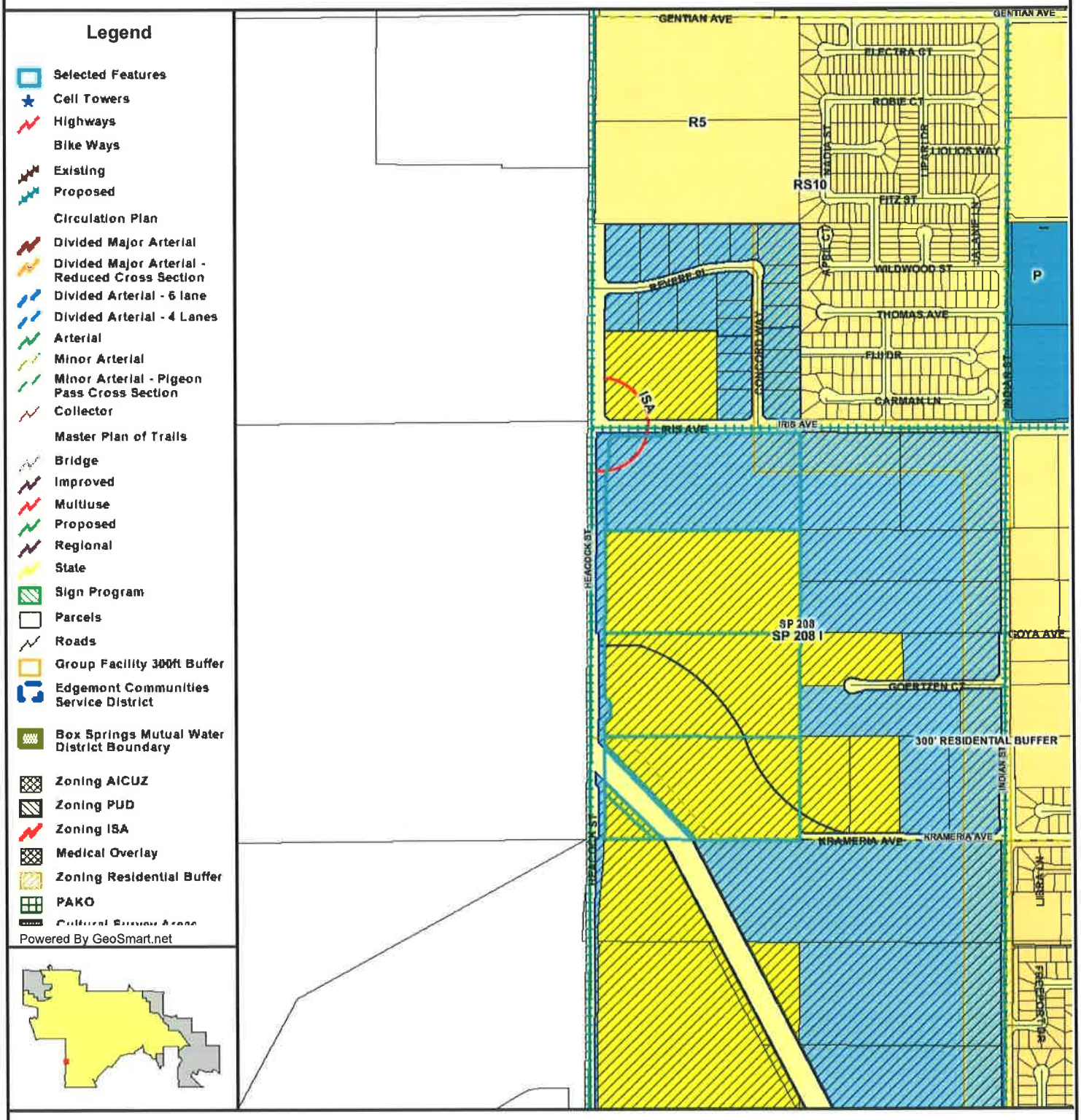

City of Moreno Valley
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WHERE DREAMS SOAR

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DRAFT Environmental Impact Report
SCH No. 2011061033

March Business Center

Moreno Valley, California
EIR Case P11-005

Lead Agency
The City of Moreno Valley
14177 Frederick Street
PO Box 88005
Moreno Valley, CA 92552

Date: April 26, 2012

DRAFT Environmental Impact Report
SCH No. 2011061033

March Business Center
Moreno Valley, California
EIR Case P11-005

Lead Agency
The City of Moreno Valley
14177 Frederick Street
PO Box 88005
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CEQA Consultant
T&B Planning, Inc.
17542 East 17th Street, Suite 100
Tustin, CA 92780

Lead Agency Discretionary Permits
General Plan Amendment (PA11-0001)
Specific Plan Amendment (P11-004)
Tentative Parcel Map No. 35879 (PA11-0007)
Master Plot Plan (PA11-0002)
Building Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006)

Date: April 26, 2012

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B2: Mobile Source Health Risk Assessment
C: Biological Resources Report
D: Cultural Resources Report
E: Geotechnical Investigation
F: Greenhouse Gas Analysis
G1: Phase I Environmental Assessment
G2 Addendum to Phase I Environmental Assessment
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I1: Noise Report
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ACRONYMS

Acronym	Definition
§	Section
µg/m^3	micrograms (one-millionth of a gram) per cubic meter
AB	Assembly Bill
ACOE	Army Corps of Engineers
ADP	Area Drainage Plan
ADT	Average Daily Traffic
AF	acre-feet
AFY	acre-feet per year
AICUZS	Air Installation Compatible Use Zone Study
a.m.	Ante Meridiem (between the hours of midnight and noon)
AMSL	above mean sea level
APN	Assessor Parcel Number
APS	alternative planning strategy
APZ	Accident Potential Zone
AQMP	Air Quality Management Plan
ARB	Air Reserve Base
AST	above-ground storage tank
AWS	All-Way Stop
BMPs	best management practices
BP	Business Park/Light Industrial land use designation
C	Capacity -or- Commercial land use designation
C_2F_6	hexafluoroethane
C_2H_6	ethane
C&D	Construction and Demolition
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CadnaA	Computer Aided Noise Abatement computer program
CalEEMod™	California Emissions Estimator Model™
CalEPA	California Environmental Protection Agency
CalGreen	California Green Building Standards Code
CalTech	California Institute of Technology
Caltrans	California Department of Transportation
CAPSSA	Criteria Area Plant Species Survey Area
CARB	California Air Resources Board
CBSC	California Building Standards Code
CAT	Climate Action Team
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CEC	California Energy Commission
CEDD	California Employment Development Department
CEQA	California Environmental Quality Act

Acronym	Definition
CESA	California Endangered Species Act
CETAP	Community & Environmental Transportation Acceptability Process
CFC	chlorofluorocarbon
CFR	Code of Federal Regulations
CGS	California Geological Survey
CF_4	tetrafluoromethane
Ch.	Chapter
CH_4	methane
CHP	combined heat and power
CIWMP	Countywide Integrated Waste Management Plan
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
COG	council of governments
COHb	carboxyhemoglobin
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
Corps	United States Army Corps of Engineers
CPUC	California Public Utilities Commission
CSS	Cross-Street Stop
CWA	Clean Water Act
CWC	California Water Code
CWC	Clean Water Code
CZ	Clear Zone
dB	decibel
dBA	A-weighted decibel
DBESP	Determination of Biologically Equivalent or Superior Alternative
DEH	Department of Environmental Health
DIF	Development Impact Fee
DTSC	Department of Toxic Substances Control
E+A	Existing Plus Ambient Growth Conditions
E+A+C	Existing Plus Ambient Growth Plus Cumulative Conditions
E+A+C+P	Existing Plus Ambient Growth Plus Cumulative Plus Project Conditions
E+A+P	Existing Plus Ambient Growth Plus Project Conditions
E+P	Existing Plus Project Conditions
EIR	Environmental Impact Report
EMFAC	Emission FACtor model
EMWD	Eastern Municipal Water District
EPA	Environmental Protection Agency
EPS	emission performance standard
EW	East West

Acronym	Definition
°F	degrees Fahrenheit
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
GCC	Global Climate Change
GHG	greenhouse gas
GIS	Geographic Information System
GLA	Glenn Lukos Associates
GV#	Growth Visioning Principle Number
GWP	Global Warming Potential
H_2O	water vapor
HANS	Habitat Evaluation and Acquisition Negotiation Strategy
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HEC-RAS	ACOE's Hydrologic Engineering Center's River Analysis System software
HETs	high-efficiency toilets
HFC	hydrofluorocarbon
HMIS	Hazardous Materials Inventory Statement
HMBEP	Hazardous Materials Business Emergency Plan
HMMP	Hazardous Materials Management Plan
HPLV	High Pressure Low Volume
HSC	California Health and Safety Code
HSR	high speed rail
HVWAP	Harvest Valley/Winchester Area Plan
I	Industrial zoning designation
I-15	Interstate 15
I-215	Interstate 215
IA	Implementing Agreement
IBC	International Building Code
ID	Identification
IPA	Inland Port Airport
IRWMP	Integrated Regional Water Management Plan ("sOne Water One Watershed")
ISCST3	Industrial Source Complex-Short Term dispersion model
ITE	Institute of Transportation Engineers
ITS	intelligent transportation systems
JD	jurisdictional determination
JPA	Joint Powers Authority
JPR	Joint Project Review
lb	pound
LCA	life cycle analysis

Acronym	Definition
LCFS	low carbon fuel standard
LEED	Leadership in Energy and Environmental Design
Leq	equivalent level
LOS	Level of Service
LNAP	Lakeview/Nuevo Area Plan
MAFB	March Air Force Base (1918-1996)
MARB	March Air Reserve Base
MBTA	Migratory Bird Treaty Act
MDP	Master Drainage Plan
mg/L	milligrams per liter
MJPA	March Joint Powers Authority
MM	Mitigation Measure
MMRP	Mitigation, Monitoring, and Reporting Program
MMTCO_2e	million metric tons of carbon dioxide equivalent
MMTs	million metric tons
MTCO_2e	metric tons of carbon dioxide equivalent
MND	Mitigated Negative Declaration
MPH	miles per hour
MPO	metropolitan planning organization
MSHCP	Multiple Species Habitat Conservation Plan
MT	metric ton
MUTCD	Manual on Uniform Traffic Control Devices
MVAP	Mead Valley Area Plan
MV	City of Moreno Valley
MVFD	Moreno Valley Fire Department
MVIAP	Moreno Valley Industrial Area Plan
MVTM	Moreno Valley Traffic Model
MWD	Metropolitan Water District
N/A	not applicable
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NB	Northbound
n.d.	not dated
NEPSSA	Narrow Endemic Plant Species Survey Area
No.	number
N_2	nitrogen
NO	nitric oxide
NOP	Notice of Preparation
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
N_2O	nitrous oxide
NPDES	National Pollution Discharge Elimination System
NPL	National Priority List
NS	North South

Acronym	Definition
O_2	oxygen
O_3	ozone
OHWM	Ordinary High Water Mark
Ord.	Ordinance
P11-004	proposed Specific Plan Amendment
P11-005	City of Moreno Valley EIR for the March Business Center Project
PA11-007	proposed Tentative Parcel Map No. 35879
PA11-0001	proposed General Plan Amendment
PA11-0002	proposed Master Plot Plan
PA11-0003	proposed Building Plot Plan for Parcel 1
PA11-0004	proposed Building Plot Plan for Parcel 2
PA11-0005	proposed Building Plot Plan for Parcel 3
PA11-0006	proposed Building Plot Plan for Parcel 4
Pb	lead
pc/mi/ln	passenger cars per mile per lane
PCBs	polychlorinated biphenyls
PCEs	Passenger Car Equivalents
PeMS	Performance Measurement System
Perris	City of Perris
PCE	passenger car equivalent
PFC	perfluorocarbon
PHF	Peak Hour Factor
p.m.	Post Meridiem (between the hours of noon and midnight)
$PM_{2.5}$	fine particulate matter (2.5 microns or smaller)
PM_{10}	fine particulate matter (10 microns or smaller)
ppb	parts per billion
ppm	parts per million
ppt	parts per trillion
PR	Project Requirement
Project	March Business Center Project
RCALUC	Riverside County Airport Land Use Commission
RCALUCP	Riverside County Airport Land Use Compatibility Plan
RCCDR	Riverside County Center for Demographic Research
RCFCWCD	Riverside County Flood Control and Water Conservation District
RCIP	Riverside County Integrated Project
RCP	Regional Comprehensive Plan
RCTC	Riverside County Transportation Commission
RCTLMA	Riverside County Transportation and Land Management Agency
RCWMD	Riverside County Waste Management Department
RGL	Regulatory Guidance Letter
RivCo	Riverside County
ROG	Reactive Organic Gas
RTA	Riverside Transit Agency

Acronym	Definition
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agency
RW	right-of-way
RWQCB	Regional Water Quality Control Board
s.f.	square feet
SARWQCB	Santa Ana Regional Water Quality Control Board
SAWPA	Santa Ana Watershed Project Authority
SB	Southbound -or- Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCH	California State Clearinghouse (Office of Planning and Research)
SCS	Sustainable Communities Strategy
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SLF	sacred lands file
SO_2	sulfur dioxide
SO_4	sulfates
SO_X	sulfur oxides
SR-60	State Route 60
SR-91	State Route 91
SRA	source receptor area
SWH	solar water heaters
SWPPP	Stormwater Pollution Prevention Plan
TDS	total dissolved solids
TIA	Traffic Impact Analysis
TM	Tentative Map
TNW	Traditional Navigable Water
TPM	Tentative Parcel Map
TS	Traffic Signal
TUMF	Transportation Uniform Mitigation Fee
UNFCCC	United Nations' Framework Convention on Climate Change
USFWS	United States Fish and Wildlife Service
U.S.	United States
USAF	United States Air Force
USGS	United States Geological Survey
UST	underground storage tank
UWMP	Urban Water Management Plan
V	Volume
V/C	Volume/Capacity (Volume to Capacity Ratio)
VMT	vehicle miles traveled
VOC	volatile organic compounds

Acronym	Definition
WMI	Watershed Management Initiative
WQMP	Water Quality Management Plan
WRCOG	Western Riverside Council of Governments
WRP	Waste Recycling Plan

S.0 EXECUTIVE SUMMARY

S.1 INTRODUCTION

The California Environmental Quality Act (CEQA), Public Resources Code §21000, et seq. requires that before a public agency makes a decision to approve a project that could have one or more adverse effects on the physical environment, the agency must inform itself about the project's potential environmental impacts, give the public an opportunity to comment on the environmental issues, and take feasible measures to avoid or reduce potential harm to the physical environment.

This Environmental Impact Report (EIR), having California State Clearinghouse No. 2011061033, has been prepared in accordance with CEQA Guidelines Article 9, §15120 to §15132, to evaluate the potential environmental impacts associated with planning, constructing, and operating the proposed March Business Center Project (herein, the Project). This EIR does not recommend either approval or denial of the proposed Project; rather, it is a source of impartial information regarding potential impacts that the Project may cause to the physical environment. The Draft EIR will be available for public review for a period of 45 days. After consideration of public comment, the City of Moreno Valley will consider certifying the Final EIR and adopting required findings in conjunction with Project approval. In the case that there are any adverse environmental impacts that cannot be fully mitigated, the City of Moreno Valley must adopt a Statement of Overriding Considerations, stating why the Project is being approved despite its unavoidable impacts.

This Executive Summary has been prepared in accordance with CEQA Guidelines §15123. This EIR includes a description of the proposed Project and evaluates the physical environmental impacts that could result from planning, constructing, and operating the Project. The scope of this EIR has been determined to cover 12 subject areas through the completion of an Initial Study prepared by the City of Moreno Valley pursuant to CEQA Guidelines §15063, and in consideration of public comment received by the City in response to this EIR's Notice of Preparation (NOP). The Initial Study, NOP, and written comments received by the City in response to the NOP, are attached to this EIR *Technical Appendix A*. As determined by the Initial Study and in consideration of public comment on the NOP, the 12 environmental subject areas that could be reasonably and significantly affected by the Project are analyzed herein, including:

1. Aesthetics
2. Air Quality
3. Biological Resources
4. Cultural Resources
5. Geology & Soils
6. Greenhouse Gas Emissions
7. Hazards and Hazardous Materials
8. Hydrology and Water Quality
9. Land Use and Planning
10. Noise
11. Transportation/Traffic
12. Utilities and Service Systems

Refer to Section 4.0, Environmental Analysis, for a full account and analysis of the subject matters listed above. As mentioned, the scope of this EIR includes these 12 subject areas as determined through the completion of an Initial Study pursuant to CEQA Guidelines §15063, and in consideration of public comment to this EIR's NOP. Subject areas for which the Initial Study concluded that impacts would be clearly less than significant and that do not warrant further analysis in this EIR are addressed in Subsection 5.4, Effects Found Not to Be Significant as Part of the Initial Study Process. For each of the 12 subject areas analyzed in Section 4.0, this EIR describes: 1) the physical conditions that existed at the approximate time this EIR's NOP was filed with the California

State Clearinghouse (June 2011); 2) discloses the type and magnitude of potential environmental impacts resulting from Project planning, construction, and operation; and 3) if warranted, recommends feasible mitigation measures that would reduce or avoid any significant adverse environmental impacts that the Project may cause. A summary of the Project's significant environmental impacts and the mitigation measures imposed by the City of Moreno Valley to lessen or avoid those impacts is included in this Executive Summary as Table S-2, *Mitigation Monitoring and Reporting Program*.

This EIR also discusses alternatives to the proposed Project. Alternatives are studied that would attain most of the Project objectives while avoiding or substantially lessening the proposed Project's significant environmental effects. A full discussion of Project alternatives is found in EIR Section 6.0, Alternatives.

S.2 PROJECT OVERVIEW

S.2.1 LOCATION AND REGIONAL SETTING

The Project site consists of 75.05 acres in the southern portion of the City of Moreno Valley, Riverside County, California (see Figure 3-1, *Regional Map*). From a regional perspective, the Project site is located to the north of the City of Perris, to the southeast of the City of Riverside, and to the south, east, and west of unincorporated areas in Riverside County. Regional access to the site is provided via I-215, which is located approximately 1.4 miles to the west of the site, and SR-60, which is located approximately 3.6 miles to the north of the site. Refer to Subsection 2.1 for more information about the Project's regional setting.

At the local scale, the Project site is located immediately south of Iris Avenue, east of Heacock Street, and about 1,300 feet west of Indian Avenue, as illustrated on Figure 3-2, Vicinity Map, and Figure 3-3, USGS Topographic Map. As shown on these exhibits, a majority of the site is located immediately north of the Perris Valley Channel, with the exception of approximately 1.84 acres located southwest of the Channel. Refer to Subsection 2.2 for more information about the Project's local setting.

S.2.2 PROJECT OBJECTIVES

The primary objective of the proposed Project is to develop an industrial business center on the Project site in conformance with the land use designations applied to the property by City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208), as well as comply to the greatest feasible extent with other applicable City of Moreno Valley standards, codes, and policies. The following is a list of specific objectives sought by the proposed Project.

A. To develop an industrial business center in conformance with the land use designations applied to the property by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208).

B. To develop a business center that can accommodate light industrial and warehouse distribution tenants within close proximity to regional transportation routes.

C. To develop a business center that is financially feasible to construct and operate.

D. To make efficient use of a property by achieving a minimum Project-wide floor area ratio (FAR) of 0.50.

E. To attract new businesses and jobs to the City of Moreno Valley, thereby providing a more equal jobs/housing balance both in the City and in Riverside County and reducing the need for members of the existing local workforce to commute outside the area for employment.

F. To modify the planned alignment of Krameria Avenue to enable efficient development of the Project site and improve circulation and public safety within the area of the Moreno Valley Industrial Area Plan.

G. To develop a business center with an architectural design and operational characteristics that are complementary with existing and planned development in the immediate vicinity.

H. To construct a business center that incorporates energy efficiency and low water use principles in order to increase environmental quality during construction and operation.

S.2.3 PROJECT DESCRIPTION SUMMARY

The Project consists of a proposal to develop a 75.05-acre property with business center land uses. The principal discretionary actions required of the City of Moreno Valley to implement the proposed Project include the adoption of a General Plan Amendment (PA11-0001) and Specific Plan Amendment (P11-004), approval of Tentative Parcel Map No. 35879 (PA11-0007), a Master Plot Plan (PA11-0002) and four (4) individual Building Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006), and certification of this EIR (P11-005). Additional discretionary and administrative actions that would be necessary to implement the proposed Project are listed in Table 3-4, *Matrix of Project Approvals/Permits*, in EIR Section 3.0.

A brief description of the proposed discretionary approvals associated with the Project is provided in the following subsections.

A. Tentative Parcel Map No. 35879

Tentative Parcel Map No. 35879 (TPM No. 35879) proposes to subdivide the 75.05-acre property into four (4) parcels, as depicted on Figure 3-4, Tentative Parcel Map No. 35879. In addition, TPM No. 35879 designates areas of public road dedication and improvement, and identifies the size and location of needed water, sewer, drainage, and utility infrastructure. According to TPM No. 35879, earthwork and grading activities would occur in one phase across the entire 75.05-acre property, and would result in approximately 111,030 cubic yards of cut and 159,957 cubic yards of fill. Developable parcels would range in size from 1.89 gross acres (1.54 net acres) to 53.43 gross acres (47.67 net acres). Additionally, two (2) roadway rights-of-way that were previously offered to the City of Moreno Valley but that were never accepted by the City for public use are proposed to be vacated as part of TPM No. 35879

B. Plot Plans PA11-0002, -0003, 0004, -0005, AND -0006

One (1) Master Plot Plan and four (4) individual Building Plot Plans are proposed as part of the Project. The Master Plot Plan (PA11-0002) establishes a common architectural and landscape development concept for the entire Project, depicts the location of proposed circulation facilities, and depicts the relationship between proposed on-site structures, as illustrated on Figure 3-11, *March Business Center Master Plot Plan*. The individual Building Plot Plans provide site plans, including a detailed architectural and landscape design for Parcel 1 (PA11-0003), Parcel 2 (PA11-0004), Parcel 3 (PA11-0005), and Parcel 4 (PA11-0006). Plot plans for Parcels 1 through 4 are presented on Figures 3-12 through 3-15. Table S-1, *March Business Center Statistical Summary*, summarizes the net

parcel size, total building area, and floor area ratio (FAR) of each proposed parcel and building. The Project Applicant anticipates that Parcels 1, 2, and 3 would primarily be occupied by warehouse distribution uses, while Parcel 4 would be occupied by light industrial uses.

Table S-1 March Business Center Statistical Summary

PARCEL	NET PARCEL SIZE	TOTAL BUILDING AREA	FAR[1]
1	2,077,688 s.f.	1,103,003 s.f.	0.53
2	512,072 s.f.	277,243 s.f.	0.54
3	258,479 s.f.	87,429 s.f.	0.34
4	67,144 s.f.	16,732 s.f.	0.25
Total	**2,915,383 s.f.**	**1,484,407 s.f.**	**0.51**

[1] Floor Area Ratio (FAR) is calculated by dividing the maximum building square footage by the net square footage of the parcel on which the building is located. Total FAR is calculated by dividing the total square footage of all buildings by the total net square footage of the parcels on which they would be located.
Source: PA11-0002, PA11-0003, PA11-0004, PA-0005, and PA11-0006 prepared by Bastien and Associates, Inc., August 17, 2011.

C. General Plan Amendment PA11-0001

A General Plan Amendment (PA11-0001) is proposed as part of the Project to modify the Circulation Element of the City of Moreno Valley General Plan. The proposed modifications to the Circulation Element would consist of changes to the planned alignment and classification of a segment of Krameria Road between Heacock Street and proposed Cosmos Street. Under existing conditions, Krameria Avenue terminates east of the Project site at Indian Avenue; however, the City's General Plan Circulation Element calls for Krameria Avenue to be extended to Heacock Street diagonally across the southern portion of the Project site, meeting Heacock Street at an oblique angle. The Project proposes a different alignment for Krameria Avenue, as depicted on Figure 3-19, *Proposed Modifications to Krameria Avenue Alignment*. The intended purpose of this change is to provide a 90-degree intersection where Krameria Avenue meets Heacock Street and to provide a perpendicular connection between Heacock Street and proposed Cosmos Street to allow for more safe and efficient local circulation system. In addition, the proposed General Plan Amendment would downgrade the classification for the Krameria Avenue segment between Indian Avenue and Heacock Street from a "Minor Arterial (88-foot right-of-way)" to an "Industrial Collector (78-foot right-of-way)."

D. Specific Plan Amendment P11-004

In addition to the General Plan Amendment described above, the proposed realignment and reclassification of Krameria Avenue through the Project site would require an amendment to the Moreno Valley Industrial Area Plan (Specific Plan 208). The proposed Specific Plan Amendment (P11-004) would change the planned alignment of the on-site segment of Krameria Avenue as described above in Section S.2.3.C. The proposed Specific Plan Amendment also would change the classification of the segment of Krameria Avenue between Indian Avenue and Heacock Street from a "Minor Arterial (88-foot right-of-way)" to an "Industrial Collector (78-foot right-of-way)," as would similarly occur under the proposed General Plan Amendment.

S.3 EIR PROCESS

As a first step in complying with the procedural requirements of CEQA for an EIR, an Initial Study was prepared by the City of Moreno Valley to determine whether any aspect of the proposed Project,

either individually or cumulatively, may cause a significant adverse effect on the physical environment (refer to EIR *Technical Appendix A*). For this Project, the Initial Study indicated that this EIR should focus on the 12 environmental subject areas listed above in Subsection S.1. After completion of the Initial Study, the City filed a NOP with the California Office of Planning and Research (State Clearinghouse) to indicate that an EIR would be prepared. In turn, the Initial Study and NOP were distributed for a 30-day public review period, which began on June 12, 2011 and ended on July 12, 2011.

Written comments on the scope of the EIR were received during those 30 days, and were considered by the City during the preparation of this EIR. In addition, and Pursuant to CEQA Guidelines §15082(c)(1), an advertised public meeting (called a scoping session) was held on June 29, 2011 at the Moreno Valley City Hall. After considering public comments on the NOP and during the scoping session, there were no comments received that warranted an expansion of the scope of the EIR beyond the 12 environmental issue areas listed in Subsection S.1.

This EIR is being circulated for review and comment by the public and other interested parties, agencies, and organizations for a 45-day review period. During the 45-day public review period, public notices announcing availability of the Draft EIR will be mailed to interested parties, advertisements will be posted in the local newspaper, and copies of the Draft EIR and its Technical Appendices will be available for review at the locations indicated in the public notices.

After the close of the 45-day Draft EIR public comment period, responses to written comments on the environmental effects of the proposed Project will be prepared and published. The Final EIR will then be considered for certification by the City of Moreno Valley Planning Commission and City Council during public hearing. The Planning Commission and City Council will review and consider the Final EIR prior to deciding to approve, approve with revision, or reject the proposed Project. Approval of the proposed Project would be accompanied by the adoption of written findings and a statement of overriding considerations for any significant unavoidable environmental impacts identified in the Final EIR. In addition, the City must adopt a Mitigation, Monitoring, and Reporting Program (MMRP), which describes the process to ensure implementation of the mitigation measures identified in the Final EIR to reduce or avoid significant impacts on the physical environment. The MMRP, which is included as Table S-2 in this EIR, will ensure CEQA compliance during Project construction and operation.

S.4 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

CEQA Guidelines §15123(b)(2) requires that areas of controversy known to the Lead Agency (City of Moreno Valley) be identified in the Executive Summary. The Lead Agency is aware of one issue of controversy:

- Near-term construction-related noise impacts that could affect nearby sensitive receptors (existing residences) located to the northeast of the proposed Project.

Regarding issues to be resolved, this EIR addresses the environmental issues that are known by the City and that are identified in the Initial Study prepared for the Project (refer to Appendix A of this EIR). Eleven (11) written comment letters were received by the City on this EIR's NOP, copies of which are also included in Appendix A. Environmental topics raised in written comment to the NOP are primarily related to the issue areas of transportation/traffic, hazards and hazardous materials,

cultural resources, flood hazards, public services, air quality, and impacts associated with diesel exhaust emissions. Refer to Table 1-2, *Summary of NOP Comments*, in Section 1.0 of this EIR.

S.5 ALTERNATIVES TO THE PROPOSED PROJECT

In compliance with CEQA Guidelines §15126.6, an EIR must describe a range of reasonable alternatives to the Project or to the location of the Project. Each alternative must be able to feasibly attain most of the Project's objectives and avoid or substantially lessen the Project's significant effects on the environment. A detailed description of each alternative evaluated in this EIR, as well as an analysis of the potential environmental impacts associated with each alternative, is provided in Section 6.0, Alternatives to the Proposed Project. Also described in Section 6.0 is a list of alternatives that were considered but rejected from further analysis. The alternatives considered by this EIR include those listed below.

S.5.1 ALTERNATIVE 1 – NO PROJECT ALTERNATIVE

The No Project Alternative is included in the alternatives analysis as required pursuant to CEQA Guidelines §15126.6(e), which requires evaluation of an alternative that considers what would reasonably be expected to occur on the property in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services. For purposes of analysis in this EIR, the No Project Alternative assumes that the Project site would be left in its existing condition. The proposed Project implements the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208). If the Project were not approved, it is reasonable to expect that the property would remain vacant for the foreseeable future.

S.5.2 ALTERNATIVE 2 – VACANT LOT/BUSINESS CENTER ALTERNATIVE

The Vacant Lot/Business Center Alternative considers development of the site in a way that would reduce or avoid near-term impacts during the Project's construction phase. Under this Alternative, no construction activities would occur on site within 1,100 feet of the property's northeastern corner, creating a distance between construction activities and sensitive receptors (residential homes) located to the northeast. However, and pursuant to City requirements, construction activities associated with frontage improvements along Iris Avenue still would be required. This Alternative was selected for consideration by the Lead Agency because two (2) of the Project's significant unavoidable impacts (noise and air quality) would occur during the construction phase; reducing the extent of construction activity by increasing the distance between construction and sensitive receptors has the potential to reduce or avoid these significant impacts. Under this alternative, the northeastern quadrant of the property would remain vacant and no construction activities would occur in this area, with exception of frontage improvements to Iris Avenue. The resulting building area on the Project's proposed Parcel 1 would be reduced and building space on the property as a whole would be lowered to approximately 762,800 s.f.

S.5.3 ALTERNATIVE 3 – SMALL BUILDING ALTERNATIVE

The Small Building Alternative considers developing Parcel 1 with 30 to 40 light industrial buildings that would range in size from 10,000 s.f. to 50,000 s.f. Buildings on Parcels 2 through 4 would be identical to the proposed Project. This Alternative assumes the construction of 1,316,404 s.f. of building space over the entire 75.05-acre property and construction of the same circulation system improvements as proposed by the Project (frontage improvements to Iris Avenue and Heacock Street,

construction of Cosmos Street, and construction of a segment of Krameria Avenue through the site). Due to the increase in the number of buildings proposed on Parcel 1, construction on Parcel 1 would occur over 4 phases (or 5 phases for the entire Project site), and would take approximately eight to twelve years to complete (as compared to approximately four years for the proposed Project). This Alternative was selected for consideration by the Lead Agency to determine if any of the Project's near-term construction or long-term operational significant impacts could be reduced or avoided by constructing smaller buildings on the Parcel 1 while maintaining consistency with the property's Industrial designation of the Moreno Valley Industrial Area Plan.

S.6 SUMMARY OF IMPACTS, PROJECT REQUIREMENTS, MITIGATION MEASURES, AND CONCLUSIONS

S.6.1 EFFECTS FOUND NOT TO BE SIGNIFICANT

The scope of this EIR includes 12 subject areas as determined through the completion of an Initial Study prepared by the City of Moreno Valley pursuant to CEQA Guidelines §15063 and CEQA Statute §21002.1(e), as well as consideration of public comments received by the City on this EIR's NOP and during the June 29, 2011 scoping session. The Initial Study, NOP, and public comments received in response to the NOP, are attached to this EIR as *Technical Appendix A*. Subject areas for which the Initial Study concluded that impacts would be clearly less than significant and that do not warrant further analysis in this EIR include: agricultural resources, mineral resources, population and housing, public services, and recreation. The EIR addresses these topics in EIR Subsection 5.4, Effects Found Not to be Significant as Part of the Initial Study Process.

S.6.2 IMPACTS OF THE PROPOSED PROJECT

Table S-2, *Mitigation, Monitoring, and Reporting Program*, provides a summary of the proposed Project's environmental impacts, as required by CEQA Guidelines §15123(a). Also presented are the Project's design features and mandatory project requirements that would serve to reduce or avoid impacts, as well as the mitigation measures imposed on the Project by the City of Moreno Valley to further avoid adverse environmental impacts or to reduce their level of significance.

Table S-2 Mitigation, Monitoring, and Reporting Program

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
4.1 Aesthetics					
Applicable Project Requirements					
	PR 4.1-1 The Project is required to comply with City of Moreno Valley Ordinance No. 359, which addresses artificial lighting and glare.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the issuance of building permits	
	PR 4.1-2 The Project is required to comply with all applicable development regulations and design standards of the- Moreno Valley Industrial Area Plan, including standards related to the design of artificial lighting contained within Section III, *Development Standards and Guidelines*, and Section IV, *Development Framework*.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the issuance of building permits	
Summary of Impacts					
Threshold 1: The Project would not significantly impact a scenic vista. The Project site does not contain any scenic vistas, nor does it offer unique views of any visually prominent features; therefore, impacts to scenic vistas would be less than significant.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 2: The Project has no potential to damage scenic resources within a scenic highway corridor. The Project site is not located within the viewshed of a scenic highway and the Project site does not contain any scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 3: The Project would not substantially degrade the existing visual character or quality of the site or its surrounding areas during Project construction or operation. Although the proposed Project would result in a change to the existing visual character of the site (i.e., from undeveloped land to a light industrial business center), the Project incorporates a number of site design, architectural, and landscaping elements consistent with the requirements of the MVIAP that would ensure the provision of a high quality development.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold 4: The Project would not create substantial light or glare. Compliance with the MVIAP requirements for lighting and mandatory compliance with City of Moreno Valley Ordinance No. 359 would ensure less than significant impacts associated with light and glare affecting day or nighttime views in the area.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
4.2 Air Quality					
Applicable Project Requirements					
	PR 4.2-1 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 402, "Nuisance."	Project Construction Manager, Project Tenants	South Coast Air Quality Management District (SCAQMD)	During construction activities and ongoing during long-term operation	
	PR 4.2-2 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust."	Project Construction Manager	SCAQMD	During construction activities	
	PR 4.2-3 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 431.2, "Sulfur Content of Liquid Fuels."	Project Construction Manager, Project Tenants	SCAQMD	During construction activities and ongoing during long-term operation	
	PR 4.2-4 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1113, "Architectural Coatings."	Project Construction Manager, Project Tenants	City of Moreno Valley Building and Safety Division, SCAQMD	During construction activities and ongoing during long-term operation	
	PR 4.2-5 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1186, "PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations."	Project Construction Manager	SCAQMD	During construction activities	
	PR 4.2-6 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1186.1, "Less-Polluting Street Sweepers."	Project Construction Manager	SCAQMD	During construction activities	
	PR 4.2-7 The Project is required to comply with California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles."	Project Construction Manager, Project Tenants	SCAQMD	During construction activities and ongoing during long-term operation	
	PR 4.2-8 The Project is required to comply with California Code of Regulations Title 13, Division 3, Chapter 10, Article 1, Section 2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling."	Project Tenants	SCAQMD	Ongoing during long-term operation	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Summary of Impacts					
Threshold 1: The proposed Project would not conflict with or obstruct implementation of the SCAQMD AQMP.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Thresholds 2 and 3: Emissions during Phase 1 of Project construction would violate the SCAQMD regional threshold for NO_X. In addition, long-term operation of the Project is projected to exceed SCAQMD regional thresholds for VOC and NO_X emissions. Near- and long-term emissions of NO_X also would contribute to an existing air quality violation in the SCAB (i.e., non-attainment status for ozone) because NO_X is a precursor for ozone. As such, Project-related emissions would violate SCAQMD air quality standards and contribute to the non-attainment status of a criteria pollutant (i.e., ozone).	**MM 4.2-1** Prior to grading permit issuance, the City shall verify the following note is included on the grading plan: "During construction activity, the contractor shall utilize California Air Resources Board (CARB) Tier III certified equipment or better for the following pieces of equipment: Graders, Rubber Tired Dozers, and Scrapers."	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the issuance of grading permit(s)	Significant Unavoidable Direct and Cumulative Impact
	MM 4.2-2 Prior to issuance of each grading and building permit, the Project applicant or construction contractor shall prepare an exhibit for review by the City depicting the location of proposed equipment staging areas. The City shall review the proposed location(s) to ensure the staging areas are located at least 300-feet away from sensitive receptors and 1,105 feet from the northeastern corner of the Project site's property boundary as measured from the Iris Avenue right-of-way, as required by Mitigation Measure MM 4.10-1.	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the issuance of grading permit(s) and building permits	
	MM 4.2-3 The Project applicant shall use "Zero-Volatile Organic Compounds" paints (no more than 150 grams of VOC per liter) and/or High Pressure Low Volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113. Alternatively, the applicant shall use building materials that do not require painting or are pre-painted. Painting products and materials compliant with these requirements shall be noted on building plans.	Project Applicant/ Developer	SCAQMD	During construction activities and ongoing during long-term operation	
	MM 4.2-4 Prior to the issuance of each building permit, the City shall ensure that building plans require the placement of signs at truck access gates, loading docks, and truck parking areas to identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum each sign	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the issuance of building permits	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes; and 3) telephone numbers of the building facilities manager and the CARB to report violations.				
	MM 4.2-5 Prior to the issuance of each building permit, the City shall review the parking lot striping and security gating plan to ensure the site design allows adequate truck stacking at gates to prevent queuing of trucks outside the facility.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the issuance of building permits	
	MM 4.2-6 Prior to the issuance of occupancy permits, the applicant shall provide evidence that a sign has been installed at each exit driveway, providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the issuance of occupancy permits	
	** Refer to MM 4.6-1 through MM 4.6-10 in Subsection 4.6, Greenhouse Gas Emissions, which also reduce impacts associated with Air Quality Thresholds 2 and 3.*				
Threshold 4: The Project would expose nearby sensitive receptors to substantial concentrations of localized particulate matter (PM_{10} and $PM_{2.5}$) during construction. Long-term operation of the Project would not expose nearby sensitive receptors to substantial pollutant concentrations of any criteria pollutant or diesel particulate matter.	MM 4.2-1 through MM 4.2-6 (above) and MM 4.6-5 and MM 4.6-8 in Subsection 4.6, Greenhouse Gas Emissions, apply to Air Quality Threshold 4.	Refer to MM 4.2-1 through MM 4.2-6 and MM 4.6-5 and MM 4.6-8	Refer to MM 4.2-1 through MM 4.2-6 and MM 4.6-5 and MM 4.6-8	Refer to MM 4.2-1 through MM 4.2-6 and MM 4.6-5 and MM 4.6-8	Less than Significant Impact with Mitigation (Short-Term) and Less than Significant Impact (Long Term; Before and After Mitigation)
Threshold 5: Although near-term construction activities could produce odors associated with construction equipment exhaust, the application of asphalt, and the application of architectural coatings, standard construction requirements would minimize odor impacts to less than significant levels. Odors associated with long-term operation of the proposed Project would not significantly impact nearby sensitive receptors.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
4.3 Biological Resources					
Applicable Project Requirements					
	PR 4.3-1 The proposed Project shall comply with City of Moreno Valley Municipal Code Title 3, Chapter 3.48, *Western Riverside County Multiple Species Habitat Conservation Plan Fee Program*, which requires a per-acre local development mitigation fee that will assist in providing revenue to acquire and preserve vegetation communities and natural areas within the city and western Riverside County which are known to support threatened, endangered or key sensitive populations of plant and wildlife species.	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)	
	PR 4.3-2 The Project shall comply with City of Moreno Valley Municipal Code Title 3, Chapter 8.60, *Threatened and Endangered Species*, which requires a per-acre local development mitigation fee pursuant to the City's adopted "The Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California" and as established pursuant to Fee Resolution 89-92.	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)	
Summary of Impacts					
Threshold 1: The proposed Project has the potential to directly and cumulatively impact burrowing owls that may be present on the site at the time development occurs. The Project also has the potential to directly and cumulatively impact nesting birds that may be present on site if construction activities were to occur during the nesting season.	**MM 4.3-1** Prior to the issuance of any grading permits, the Planning Division shall review grading plans to ensure that the following note is included on the plans: "No more than 30 days prior to commencement of ground-disturbing activities on site, a qualified biologist shall conduct pre-construction presence/absence surveys in accordance with the MSHCP Burrowing Owl Survey Instructions requirements and as required by MSHCP Objective 6 for the burrowing owl. In the event that pre-construction surveys identify the presence of any burrowing owls, then prior to commencement of ground-disturbing activities on site, and pursuant to Objective 6 of the MSHCP burrowing owl objectives, a qualified biologist shall passively relocate any burrowing owls present on site following protocols approved by the MSHCP, CDFG, and USFWS, including the required use of one-way doors to exclude owls from the site and collapsing of burrows.	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)	Less than Significant Impact with Mitigation

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	Owl relocation shall occur between September 15th and February 1st to avoid the nesting season. The "take" of any active nests during the breeding season shall be prohibited pursuant to the Migratory Bird Treaty Act and California Fish and Game Code. Ground disturbing activities authorized by this permit shall not occur until a report documenting the findings of the pre-construction survey has been prepared and approved by the Planning Division. The report shall identify the results of the pre-construction survey and provide documentation and evidence (e.g., photographs) of any passive relocation efforts that have occurred. No ground-disturbing activities may proceed unless the final report, as approved by the Planning Division, concludes that burrowing owls are no longer present on the property." **MM 4.3-2** As a condition of approval for all grading permits, vegetation clearing and ground disturbance shall be prohibited during the migratory bird nesting season (February 1 through September 15), unless a migratory bird nesting survey is completed in accordance with the following requirements: a) A nesting bird survey shall be conducted by a qualified biologist within three (3) days prior to initiating vegetation clearing or ground disturbance. b) A copy of the nesting bird survey results report shall be provided to the City of Moreno Valley. If the results of the nesting bird survey identify the presence of active nests on the property, then the qualified biologist shall provide the City of Moreno Valley Planning Division with a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impact. The size and location of all buffer zones, if required, shall be subject to review and approval by the Planning Department. The approved buffer zone shall be marked in the field with construction	Project Biologist	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist and City Planning Department verify that the nests are no longer occupied and the juvenile birds can survive independently from the nests.				
Threshold 2: The Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community. Although the proposed Project would impact 0.05-acre of MSHCP riverine area in the off-site Perris Valley Storm Drain Channel (as well as 0.05-acre of Corps and RWQCB jurisdictional area and 0.06-acre of CDFG jurisdictional area), this area is an unvegetated streambed. As such, there would be no loss of functions and values of riparian habitat or substantial effect on a sensitive natural community.	Impacts to CDFG, Corps, and RWQCB would not be significant due to standard regulatory requirements requiring the acquisition of a Section 1602 Streambed Alteration Agreement, Section 401 Permit, and Section 404 Permit. As part of these permits, the following mitigation measures will be required: **MM 4.3-3** Prior to the issuance of grading permits, and in accordance with the California Fish and Game (CDFG) Code, the Project shall obtain a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Game (CDFG) for impact to 0.06-acre of CDFG jurisdictional area in the Perris Valley Storm Drain Channel. As part of the Agreement, the Project Applicant may acquire credits for the impact at a minimum 1:1 ratio from an approved in-lieu fee program or mitigation land bank. **MM 4.3-4** Prior to the issuance of grading permits, and in accordance with the Clean Water Act, the Project shall obtain a Section 404 Permit from the U.S. Army Corps of Engineers (Corps) and a Section 401 Permit from the Regional Water Quality Control Board (RWQCB) for impact to 0.05-acre of Corps and RWQCB jurisdictional area in the Perris Valley Storm Drain Channel. As part of the Permits, the Project Applicant may acquire credits for the impact at a minimum 1:1 ratio from an approved in-lieu fee program or mitigation land bank.	Project Applicant/ Developer, CDFG Project Applicant/ Developer, Corps, RWQCB	City of Moreno Valley Planning Division City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s) Prior to the issuance of grading permit(s)	Less than Significant Impact (Before and After Mitigation)
Threshold 3: There are no federally protected wetlands on the Project site. A Section 404 Permit is required for the Project's off-site impact to 0.05-acre of Corps jurisdictional area, but this area is not a wetland.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 4: The Project would not substantially interfere with the movement of	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
any resident or migratory fish or wildlife species, would not impact a wildlife corridor, nor impede the use of a nursery site.					
Threshold 5: The Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 6: The Project is subject to the Western Riverside County MSHCP and would not conflict with any applicable MSHCP provision.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
4.4 Cultural Resources					
Applicable Project Requirements					
	PR 4.4-1 The Project is required to comply with CA Public Resources Code §5097.98, "Native American Historical, Cultural, and Sacred Sites."	Project Applicant/ Developer	City of Moreno Valley Planning Division	Ongoing during grading, earthwork, and trenching activities	
	PR 4.4-2 The Project is required to comply with California Health and Safety Code, §7050.5. "Disturbance of Human Remains."	Project Construction Manager	City of Moreno Valley Planning Division	Ongoing during grading, earthwork, and trenching activities	
Summary of Impacts					
Threshold 1: The Project would not impact a historic resource. No historic sites are present on the Project site; therefore, no historic sites could be altered or destroyed by construction or operation of the proposed Project.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 2: The Project would not impact any known or recorded archaeological resources. There is a low likelihood for unearthing archaeological resources that meet the definition of a significant resource given in California Code of Regulations during Project construction.	**MM 4.4-2** Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan: "If any suspected archaeological resources are discovered during ground-disturbing activities, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call a qualified archaeologist to the site to assess the significance of the find. A qualified archaeologist shall evaluate the suspected resource. If the archaeologist determines that the find does not meet the CEQA standards of cultural significance given in the California Code of Regulations §15064.5, construction shall be permitted to proceed. However, if the archaeologist determines that further information is needed to evaluate significance, the City of Moreno Valley	Project Applicant/ Developer, Project Construction Manager, Project Archaeologist	City of Moreno Valley Land Development Division and Planning Division	Ongoing during grading, earthwork, and trenching activities	Less than Significant Impact (Before and After Mitigation)

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	shall be notified and a treatment plan shall be prepared and implemented in consultation with the City and the culturally affiliated Native American tribe and in accord with Public Resources Code §21083.2. The landowner shall relinquish ownership of all archaeological artifacts that are of Native American origin found on the Project site to the culturally affiliated Native American tribe for proper treatment and disposition."				
Threshold 3: The Project would not impact any known paleontological resource. There is a low likelihood for unearthing unique paleontological resources, sites, and geologic features during Project construction.	**MM 4.4-3** Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan: "If any suspected paleontological resources are discovered during ground-disturbing activities, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call a qualified paleontologist to the site to assess the significance of the find. A qualified paleontologist shall evaluate the suspected resource. If the paleontologist determines that the find is not unique, construction shall be permitted to proceed. However, if the paleontologist determines that further information is needed to evaluate significance, the City of Moreno Valley shall be notified and a treatment plan shall be prepared and implemented in consultation with the City. Discovered fossils or samples of such fossils collected by the paleontologist shall be cleaned and prepared to allow for identification. Specimens recovered shall be donated to a qualified scientific institution for preservation and study. Examples of qualified institutions include, but are not limited to, the San Bernardino County Museum (Redlands, California) or the Western Center for Archaeology and Paleontology (Hemet, California)."	Project Applicant/ Developer, Project Construction Manager, Project Paleontologist t	City of Moreno Valley Land Development Division and Planning Division	Ongoing during grading, earthwork, and trenching activities	Less than Significant Impact (Before and After Mitigation).
Threshold 4: No human remains have been discovered at the Project site and no human remains are known to be buried beneath the surface of the site. If human remains are uncovered during ground disturbing construction activities and are determined to be of Native American decent, compliance	**MM 4.4-4** If human remains are discovered during earthwork or other construction activities, work in the affected area shall cease immediately and the Riverside County Coroner shall be notified. The remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made by the Coroner. If	Project Construction Manager; Riverside County Coroner	City of Moreno Valley Land Development Division and Planning Division	Ongoing during grading, earthwork, and trenching activities	Less than Significant Impact (Before and After Mitigation)

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
with California Public Resources Code §5097.98, Health and Safety Code Sections 8010-801, and a condition imposed by the City of Moreno Valley to require compliance to those provisions would reduce the potential impact to below a level of significance.	the Riverside County Coroner determines the remains to be Native American, the California Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then immediately notify the "most likely descendants" of receiving notification of the discovery. The most likely descendants shall then make recommendations within 48 hours, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code §5097.98, "Native American Historical, Cultural, and Sacred Sites."				
4.5 Geology and Soils					
Applicable Project Requirements					
	PR 4.5-1 Structures are required to be constructed in accordance with the City of Moreno Valley Building Code (City of Moreno Ordinance No. 816) and California Code of Regulations, Title 24, Part 2, the California Green Building Standards Code, which provides minimum standards for building design.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the issuance of building permits	
	PR 4.5-2 All grading and earthwork activities are required to be performed in accordance with all applicable requirements of the City of Moreno Valley grading and excavation code (City of Moreno Valley Ordinance No. 586).	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division and Land Development Division	Prior to the issuance of grading permit(s) and building permits	
	PR 4.5-3 The Project is required to obtain coverage under the General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit, 99-08-DWQ). The Permit will require the preparation and implementation of a Stormwater Pollution Prevention Plan and implementation of Best Management Practices.	Project Applicant/ Developer	Santa Ana Regional Water Quality Control Board	Prior to the issuance of grading permit(s)	
	PR 4.5-4 During grading and construction activities, the construction contractor(s) are required to comply with the requirements of SCAQMD Rule 403, Fugitive Dust.	Project Construction Manager	SCAQMD	During construction activities	
	PR 4.5-5 The Project is required by the City of Moreno Valley to comply with all recommendations given in its geotechnical study (*Technical Appendix E* to this EIR).	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division and Land Development Division	Prior to the issuance of grading permit(s) and building permits.	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Summary of Impacts					
Threshold 1: The Project would not expose people or structures to substantial adverse seismic risks. There are no known active or potentially active faults on the Project site or trending toward the Project site. On-site soils are relatively stable. The risk of liquefaction is low. There is no risk of landslide. As with all properties within the Southern California region, the Project site is subject to seismic ground shaking associated with earthquakes. However, mandatory compliance with local and state ordinances and building codes would ensure that on-site structures are developed as required to attenuate the risk to life or property to less than significant levels.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 2: The Project would not result in substantial soil erosion or loss of topsoil. Soils on the site would be exposed to water and wind erosion during grading and site development, but with the application of mandatory regulatory requirements, including the preparation and implementation of a WQMP, a SWPPP, and compliance to applicable City ordinances, erosion impacts on and off site would not be substantial and less than significant.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 3: The Project would not cause geologic unit or soil instability. There is no potential for the Project to cause rockfalls, landslides, or lateral spreading. Although soils on the site have the potential for soil shrinkage and settlement, any potential adverse effects associated with such conditions would be less than significant with mandatory compliance with the recommendations provided within the Project geotechnical study, including requirements to remove and re-compact areas where such soil conditions exist.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 4: The Project would not be located on expansive soils. Near surface soils on the Project site possess a very low expansion potential.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold 5: The Project would not install septic tanks or alternative wastewater disposal systems. Accordingly, no impact would occur associated with soil compatibility for waste disposal systems.	Mitigation is not required.	N/A	N/A	N/A	No Impact
4.6 Greenhouse Gas Emissions					
Applicable Project Requirements					
	PR 4.6-1 The Project is required to comply with mandatory regulatory requirements imposed by the State of California and the South Coast Air Quality Management District aimed at the reduction of air quality emissions. Those that are applicable to the Project and that would assist in the reduction of Project-related GHG emissions include, but are not limited to the following: a) Global Warming Solutions Act of 2006 (AB32). b) Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (SB 375). c) California Code of Regulations Title 13, Division 3 addressing diesel exhaust emissions. Specifically, Chapter 1, Article 4.5, §2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles" and Chapter 10, Article 1, §2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling." d) California Code of Regulations Title 24 (California Building Code), which establishes energy efficiency requirements for new construction. e) California Code of Regulations Title 20 (Appliance Energy Efficiency Standards), which establishes energy efficiency requirements for appliances.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the issuance of building permits and ongoing during long-term operation	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	f) South Coast Air Quality Management District Rule 1118 "PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations," and Rule 1186.1 "Less Polluting Street Sweepers."				
	PR 4.6-2 Prior to the issuance of building permits, the Building and Safety Division shall ensure that the project plans provide for on-site bicycle storage, pursuant to City of Moreno Valley Municipal Code §9.11.060.B, *Off-street bicycle parking requirements*. This requirement encourages non-vehicular transportation thereby potentially reducing mobile source emissions.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the issuance of building permits	N/A
Summary of Impacts					
Thresholds 1 and 2: The proposed Project would have a less than significant direct impact on global climate change and the Project's contribution of greenhouse gas emissions would be less than cumulatively considerable. The Project complies with all applicable CARB Scoping Plan and 2006 CAT Report GHG reduction measures. There are no other applicable plans, policies, or regulations that have been adopted for the purpose of reducing the Project's emissions of greenhouse gases.	Although Project-related GHG emissions are evaluated as less than significant on both a direct and cumulative basis, the following measures are recommended to ensure that Project-related emissions of GHGs are reduced to the maximum practical extent: **MM 4.6-1** The Project's construction drawings shall be designed to achieve certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program. Prior to issuance of a building permit, the applicant shall provide a letter from a qualified LEED consultant verifying that proposed building design features are adequate to seek LEED certification. Following final building inspection, the Project applicant shall seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute.	Project Applicant/ Developer	City of Moreno Valley Planning Division and Building and Safety Division	Prior to approval of building permits and following final building inspection	Less than Significant Impact
	MM 4.6-2 Prior to the issuance of grading and building permits, the Planning Division and the Land Development Division shall review grading plans and building plans to ensure that the following notes are specified: "With the exception of equipment used for asphalt paving, trenching, and off-site improvements, all diesel-powered construction equipment shall use B20 biodiesel fuel (comprising a minimum of 20% biodiesel) for the duration of construction activities. Any construction equipment whose warranty would be voided upon the use of B20 biodiesel fuel shall be exempt from this requirement. The Building and	Project Applicant/ Developer	Planning Division and Land Development Division	Prior to the issuance of grading and building permits	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	Safety Division may exempt additional pieces of equipment from this requirement upon written request from the Project applicant documenting a valid technical, economic, or physical reason why the use of B20 biodiesel fuel cannot be used. This requirement shall only apply if B20 biodiesel fuel is available within 15 roadway miles from the Project site at the time construction activities commence." "During Project construction, existing electrical power sources (e.g., power poles) shall be provided for electric construction tools including saws, drills and compressors, to minimize the need for diesel or gasoline powered electric generators."				
	MM 4.6-3 Prior to the approval of building permits, the Planning Division shall review landscaping plans to ensure that the following components are included: a) Landscaping palette emphasizing drought tolerant plants; and b) Use of water-efficient irrigation techniques.	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the approval of building permits	
	MM 4.6-4 The Project's mechanical/electrical /plumbing (MEP) plans shall specify U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads (if showers are proposed). Prior to the approval of building permits, the Building and Safety Division shall review the plans to ensure that these features are specified, as appropriate.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the approval of building permits	
	MM 4.6-5 Prior to the issuance of building permits, the Project applicant shall submit energy usage calculations to the Planning Division showing that the Project is designed to achieve 8% efficiency beyond the 2008 California Building Code Title 24 requirements. Example of measures that reduce energy consumption include, but are not limited to, the following (it being understood that the items listed below are not all required and merely present examples; the list is not all-inclusive and other features that reduce energy consumption also are acceptable): a) Increase in insulation such that heat transfer	Project Applicant/ Developer	City of Moreno Valley Planning Division and Building and Safety Division	Prior to the issuance of building permits	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	and thermal bridging is minimized; b) Limit air leakage through the structure and/or within the heating and cooling distribution system; c) Use of energy-efficient space heating and cooling equipment; d) Installation of electrical hook-ups at loading dock areas; e) Installation of dual-paned or other energy efficient windows; f) Use of interior and exterior energy efficient lighting that exceeds the 2008 California Title 24 Energy Efficiency performance standards; g) Installation of automatic devices to turn off lights where they are not needed; h) To the extent they are compatible with Moreno Valley Municipal Code §9.17.030, Landscape and Irrigation Design Standards, the incorporation of shade-producing trees, particularly those that shade buildings and paved surfaces such as streets and parking lots; i) Application of a paint and surface color palette that emphasizes light and off-white colors that reflect heat away from buildings; j) Design of buildings with "cool roofs" using products certified by the Cool Roof Rating Council, and/or exposed roof surfaces using light and off-white colors; k) Design of buildings to accommodate photo-voltaic solar electricity systems or the installation of photo-voltaic solar electricity systems; l) Installation of ENERGY STAR-qualified energy-efficient appliances, heating and cooling systems, office equipment, and/or lighting products; and/or m) Other measures incorporated as part of the LEED Certification process.				
	MM 4.6-6 Prior to the approval of street improvement plans, the Transportation Engineering Division shall ensure that all traffic lights installed as part of the Project will utilize Light Emitting Diodes.	Project Applicant/ Developer	City of Moreno Valley Department of Public Works (Transportation Engineering Division)	Prior to the approval of street improvement plans	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	MM 4.6-7 The Project shall comply with the following requirements to reduce the generation of solid waste during construction and under long-term operating conditions:				
	a) Prior to the issuance of grading permits, a Waste Management Plan (WMP) addressing construction activity wastes shall be prepared by the Project Applicant and submitted to the Public Works Department and Building and Safety Division for review and approval. The WRP must conform to City requirements specified in Municipal Code Section 8.80.030, which requires that at least 50 percent of all construction and demolition debris be reused, recycled, or otherwise diverted from disposal in a landfill. During grading and construction, the Project Applicant shall recycle and reuse the required percentage of materials, and keep records of the tonnage or other measurements approved by the City that can be converted to tonnage amounts. Prior to issuance of an occupancy permit, the Project Applicant shall provide evidence (i.e., receipts, weight tags, or other type of acceptable verifications) to the Public Works Department to demonstrate Project compliance with the approved WRP. Evidence must clearly identify the amount of waste disposed and materials recycled.	Project Applicant/ Developer	City of Moreno Valley Public Works Department Recycling Team, City of Moreno Valley Building and Safety Division	Prior to the issuance of grading permits, during construction, and prior to the issuance of occupancy permits	
	b) Recycling shall occur during Project operational activities in accordance with all applicable solid waste and recycling requirements of the City of Moreno Valley Public Works Department. Prior to the issuance of building permits, the Building and Safety Division shall review building plans to ensure that the locations and dimensions of recyclable collection enclosures and loading areas are specified on the building plans in conformance with City requirements and City Municipal Code Chapter 6.02 "Refuse Collection, Transfer and Disposal." Prior to the issuance of occupancy permits, the Land Development Division shall conduct a field inspection to ensure that the recyclable collection enclosures and loading areas are in place and ready for use.	Project Applicant/ Developer	City of Moreno Valley Public Works Department Recycling Team, City of Moreno Valley Building and Safety Division and Land Development Division	Prior to the issuance of building permits and prior to the issuance of occupancy permits	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	MM 4.6-8 Prior to the issuance of building permits, the Planning Division shall review building plans to ensure that a minimum of two (2) parking spaces for each building will be reserved for carpools and vanpools. Prior to the issuance of occupancy permits, the Planning Division shall conduct a field inspection to ensure that a minimum of two (2) parking spaces for each building are marked as reserved for carpools and vanpools.	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of building permits and prior to the issuance of occupancy permits	
	MM 4.6-9 Prior to the issuance of building permits for Parcel 1, the Planning Division and Building and Safety Division shall review building plans to ensure that a minimum of two (2) electric vehicle charging stations will be provided. Prior to the issuance of occupancy permits for Parcel 1, the Planning Division and Building and Safety Division shall conduct a field inspection to verify that the electric vehicle charging stations are in place and operable.	Project Applicant/ Developer	City of Moreno Valley Planning Division and Building and Safety Division	Prior to the issuance of building permits for Parcel 1 and prior to the issuance of occupancy permits for Parcel 1	
	MM 4.6-10 Prior to the issuance of occupancy permit, the Project's property owner shall provide documentation to the Planning Division verifying that a provision is included in the building's lease agreement which stipulates that tenants of the building shall encourage carpooling and transit ridership by on-site employees. ** Refer to MM 4.2-1 through MM 4.2-6 in Subsection 4.2, Air Quality, which also reduce greenhouse gas emissions.*	Project Applicant/Property Owner	City of Moreno Valley Planning Division	Prior to the issuance of occupancy permits	
4.7 Hazards and Hazardous Materials					
Applicable Project Requirements					
	PR 4.7-1 The Project is required to comply with all federal, state, and local hazardous materials regulations, as overseen and enforced by the California Department of Toxic Substances Control, the Riverside County Department of Environmental Health and the Moreno Valley Fire Department.	Project Construction Manager, Project Tenants	Riverside County Department of Environmental Health, City of Moreno Valley Fire Department	During construction activities and ongoing during long-term operation	N/A
	PR 4.7-2 Groundwater monitoring wells requiring removal shall be abandoned in accordance with the State of California Well Standards (Department of Water Resources Bulletins 74-81 & 74-90).	Project Applicant/ Developer	City of Moreno Valley Land Development Division, Santa Ana Regional Water Quality Control Board	Prior to the issuance of grading permit(s)	N/A

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	PR 4.7-3 New groundwater monitoring water wells shall be constructed in accordance with the State of California Well Standards (Department of Water Resources Bulletins 74-81 & 74-90).	Project Applicant/ Developer	City of Moreno Valley Land Development Division, Santa Ana Regional Water Quality Control Board	During construction activities	N/A
	PR 4.7-4 If underground storage tanks are discovered during the Project's grading operation, the tanks shall be removed in accordance with the State of California Underground Storage Tank Regulations (California Code of Regulations Title 23, Division 3, Chapter 16) under the oversight of the Riverside County Department of Environmental Health, Local Oversight Program.	Project Construction Manager	Riverside County Department of Environmental Health	During construction activities	N/A
	PR 4.7-5 In the event that any subsurface hazardous materials or potentially hazardous materials are found during grading, the suspected hazardous materials are required to be properly disposed of in accordance with federal, state and Riverside County Department of Environmental Health requirements.	Project Construction Manager	Riverside County Department of Environmental Health	During construction activities	N/A
	PR 4.7-6 Per the requirements Riverside County Department of Environmental Health and the CA Health and Safety Code (HSC), Chapter 6.95, Sections 25500 - 25532, a Hazardous Materials Business Emergency Plan must be prepared by any future business on the Project site that handles a hazardous material or a mixture containing a hazardous material in quantities equal to or greater than a weight of 500 pounds, total volume of 55 gallons, 200 cubic feet (at standard temperature and pressure) for compressed gas, or any radioactive material Extremely Hazardous Substance or Waste, any amount of a Regulated Substance, or any amount of an Acutely Hazardous Material.	Project Tenants	Riverside County Department of Environmental Health, City of Moreno Valley Fire Department	Ongoing during long-term operation	N/A
	PR 4.7-7 The Project is required to comply with the following standard condition of approval imposed by the City of Moreno Valley: "Prior to issuance of a Certificate of Occupancy or Building Final, a 'Knox Box Rapid Entry System' shall be provided. The Knox-Box shall be installed in an accessible location approved by the Fire Chief. The Knox-Box shall be supervised by the alarm system and all exterior security emergency access gates shall be electronically operated and be provided with Knox key switches for access by emergency	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division, City of Moreno Valley Fire Department	Prior to final building inspection	N/A

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	personnel."				
	PR 4.7-8 The Project is required to comply with the following standard condition of approval imposed by the City of Moreno Valley: "Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall be responsible for obtaining underground and/or above ground tank permits for the storage of combustible liquids, flammable liquids, or any other hazardous materials from both the County of Riverside Community Health Agency Department of Environmental Health and the Fire Prevention Bureau."	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division, City of Moreno Valley Fire Department	Prior to final building inspection	N/A
	PR 4.7-9 The Project is required to comply with the following standard City of Moreno Valley requirement: "Prior to issuance of Certificate of Occupancy, permits are required to store, dispense, use or handle hazardous material; to conduct processes which produce conditions hazardous to life or property; or to install equipment used in connection with such activities. Such permits shall not be construed as authority to violate, cancel or set aside any of the provisions of this code. Such permit shall not take the place of any license required by law. Applications for permits shall be made to the Fire Prevention Bureau in such form and detail as prescribed by the Bureau. Applications for permits shall be accompanied by such plans as required by the Bureau. Each application for a permit shall include a hazardous materials management plan (HMMP). The HMMP shall be posted adjacent to (other) permits when an HMMP is provided. The HMMP shall include a facility site plan designating the following: a) Storage and use areas; b) Maximum amount of each material stored or used in each area; c) Range of container sizes; d) Locations of emergency isolation and mitigation valves and devises; e) Product conveying piping containing liquids or gases, other than utility-owned fuel gas lines and low-pressure fuel gas lines; f) On and off positions of valves for valves which are of the self-indicating type;	Project Applicant/ Developer, Project Tenants	Riverside County Department of Environmental Health, City of Moreno Valley Building and Safety Division, City of Moreno Valley Fire Department	Prior to issuance of certificate of occupancy and ongoing during long-term operation	N/A

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	g) Storage plan showing the intended storage arrangement, including the location and dimensions of aisles. The plans shall be legible and approximately to scale. Separate distribution systems are allowed to be shown on separate pages; and h) Site plan showing all adjacent/neighboring structures and use. Each application for a permit also shall include a hazardous materials inventory statement (HMIS). Permits issued by the Fire Prevention Bureau shall be kept on the premises designated therein at all times and shall be posted in a conspicuous location on the premises or shall be kept on the premises in a location designated by the Fire Chief. Permits shall be subject to inspection at all times by an officer of the fire department or other persons authorized by the Fire Chief."				
Summary of Impacts					
Thresholds 1 and 2: During Project operation and with mandatory compliance to federal, state and local regulations, the proposed Project would not create a significant hazard to the public or the environment due to routine transport, use, disposal, or upset of hazardous materials.	Although impacts would be less than significant, the following mitigation measures are recommended as precautions during the Project's construction process. **MM 4.7-1** Prior to grading permit issuance, the City shall verify that the Project's Grading Plan indicates: a) the location of all groundwater monitoring wells to be preserved in place; b) the method used to flag, stake, or otherwise identify the location of the groundwater monitoring wells in the field; and c) any required grading procedures or precautions to be taken in the vicinity of the monitoring well locations. **MM 4.7-2** Prior to the issuance of grading permits, the City of Moreno Valley Land Development Division shall ensure that the Project's required Stormwater Pollution Prevention Plan (SWPPP) includes emergency procedures for accidental hazardous materials releases during construction. The procedures shall include necessary personal protective equipment, spill containment procedures, and training of workers to respond to accidental spills/releases.	Project Applicant/ Developer Project Applicant/ Developer	City of Moreno Valley Land Development Division City of Moreno Valley Land Development Division	Prior to the issuance of grading permit(s) Prior to the issuance of grading permit(s)	Less than Significant Impact (Before and After Mitigation)

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold 3: Although the Project site is located approximately 0.25 mile from the nearest school facility (Rainbow Ridge Elementary School), mandatory compliance with applicable federal, state, and local regulations, including regulations and permitting requirements from the MVFD, would ensure that operation of the proposed Project would not expose school students or staff to significant effects associated with the emissions or handling of hazardous or acutely hazardous materials, substances, or waste.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 4: The Project site is not listed on any list of hazardous materials compiled pursuant to Government Code §65962.5.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 5: The Project site is located with the influence area of March ARB/ IPA, but is not located in areas subject to crash hazards associated with airport operations. The Project does not propose any features that would be considered hazardous to airport operations.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 6: The Project site is not located in the vicinity of a private airstrip or heliport and, therefore, has no potential to cause a safety impact to these facilities.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 7: The Project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. No emergency facilities exist on the Project site, and the site does not serve as an emergency evacuation route.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 8: The Project would not expose people or structures to a significant wildfire risk. The Project site is not located in close proximity to wildland fire hazard areas. The Project would develop a vacant site, thereby reducing the risk for wildfire on the property. The Project is subject to review and approval by the MVFD to ensure that features have been incorporated within the development to address potential fire hazards.	Mitigation is not required.	N/A	N/A	N/A	No Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
4.8 Hydrology and Water Quality					
Applicable Project Requirements					
	PR 4.8-1 The Project is required to obtain coverage under the General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit, 99-08-DWQ). The Permit will require the preparation and implementation of a Stormwater Pollution Prevention Plan and implementation of Best Management Practices.	Project Applicant/ Developer	Santa Ana Regional Water Quality Control Board	Prior to the issuance of grading permit(s)	N/A
	PR 4.8-2 The Project is required to comply with the City of Moreno Valley's standard condition of approval requiring the Project to comply with all recommendations given in its Water Quality Management Plan (Technical Appendix H2 to this EIR).	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division and Land Development Division	Prior to the issuance of grading permit(s) and building permits	N/A
	PR 4.8-3 The Project is required to construct four (4) on-site infiltration/detention basins as indicated on the Project's proposed Tentative Parcel Map and Plot Plans.	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the issuance of grading permit(s)	N/A
	PR 4.8-4 The Project is required to construct all buildings at elevations higher than the base flood elevation as indicated on the Project's Proposed Tentative Parcel Map and Plot Plans.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division, City of Moreno Valley Land Development Division	Prior to the issuance of building permits	N/A
Summary of Impacts					
Threshold 1: The proposed Project would not violate any water quality standards or waste discharge requirements on a direct or cumulative basis. The Project is required to prepare a SWPPP to address construction-related water quality issues, and would be required to comply with a site-specific WQMP and its associated BMPs.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 2: The proposed Project proposes no potable water wells and would not substantially impact the availability of potable groundwater in the Project area.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 3: The proposed Project would generally maintain the existing drainage pattern of the site, would have no effect on the courses of any streams or rivers, and would not result in substantial erosion or siltation on or off site.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold 4: There would be no significant increases in flood hazard. The proposed Project would generally maintain the existing drainage pattern of the site, would have no effect on the courses of any streams or rivers, and would not result in a substantial increase in the rate of surface runoff in a manner which would result in increased flood hazards on or off site.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 5: The proposed Project would not create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems, nor would the Project provide substantial additional sources of polluted runoff.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 6: There are no other components of the proposed Project with a potential to substantially degrade water quality.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 7: The proposed Project does not involve the construction of residential housing and therefore would not place housing in a flood area.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 8: Although the Project would redirect flood flows on site (i.e., away from proposed structures), such changes would not result in increased flood hazards to any off-site properties.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 9: The Project site is not subject to flood hazards associated with the failure of a levee or a dam.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 10: The Project site is not subject to hazards associated with seiches, tsunamis, or mudflow.	Mitigation is not required.	N/A	N/A	N/A	No Impact
4.9 Land Use and Planning					
Applicable Project Requirements					
	PR 4.9-1 The Project is required to comply with all Conditions of Approval issued by the City of Moreno Valley associated with the Project's permit applications (*i.e.*, PA11-0001, PA11-0002, PA11-0003, PA11-0004, PA11-0005, PA11-0006, PA11-0007, and P11-004)	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division, City of Moreno Valley Community and Economic Development Department (Land Development Division and Planning Division)	Prior to the issuance of grading permit(s) and building permits, and prior to final building inspection	N/A

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Summary of Impacts					
Threshold 1: The proposed Project would not result in the physical division of any established communities.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 2: The proposed Project would not conflict or adversely affect the implementation of with any applicable plan, policy, or regulation adopted for the purpose of avoiding or reducing environmental effects.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 3: The proposed Project would not conflict with or adversely affect the implementation of the Western Riverside County MSHCP, nor any other habitat conservation plans or natural community conservation plans.	Mitigation is not required.	N/A	N/A	N/A	No Impact
4.10 Noise					
Applicable Project Requirements					
	PR 4.10-1 The Project is required to comply with the City of Moreno Valley Noise Ordinance (Moreno Valley Municipal Code Chapter 11.80).	Project Construction Manager, Project Tenants	City of Moreno Valley Code and Neighborhood Services Division	During construction activities and ongoing during long-term operation	N/A
Summary of Impacts					
Thresholds 1, 3, and 4: During construction of the Project, noise levels associated with Project construction activities would exceed levels given in the City of Moreno Valley Noise Ordinance. Existing sensitive receptors (residential homes) located northeast of the Project site would be impacted by temporary and intermittent construction noise when construction activities occur on the Project site within 1,105 feet of the northeastern corner of the property boundary. Additionally, in the event that Project construction activities occur simultaneously with construction activities on adjacent properties to the north or east, cumulative construction-related noise levels could be in excess of 79.9 dBA when measured at a distance of 200 feet from the property boundary. Under long-term operating conditions, the Project would not generate traffic-related or	**MM 4.10-1** Prior to the issuance of any building or grading permits, the City of Moreno Valley Building and Safety Division shall review building and grading plans to ensure that the following notes are included: a) All construction activities, including but not limited to haul truck deliveries, shall be limited to between the hours of 7:00 a.m. and 8:00 p.m. b) Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. c) All stationary construction equipment shall be placed in such a manner so that emitted noise is directed away from the construction site's north and east property boundaries. d) Equipment staging shall be located at a minimum distance of 1,105 feet from the northeastern corner of the Project site's property	Project Applicant/ Developer, Project Construction Manager	City of Moreno Valley Land Development Division	Prior to the issuance of grading permit(s)	Significant Unavoidable Direct and Cumulative Impact (Short Term)

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
stationary noise levels above the standards given in the City of Moreno Valley Noise Ordinance or in any adjacent jurisdiction's General Plan. Long-term impacts would be less than significant.	boundary, as measured from the Iris Avenue right-of-way. e) All haul truck deliveries shall be limited to approved haul routes. Should alternate routes be necessary, haul trucks shall not use roadways that pass noise-sensitive land uses or residential dwellings unless approved by the City of Moreno Valley. **MM 4.10-2** Prior to the issuance of any building or grading permits, the Project applicant shall prepare a Construction Haul Route exhibit identifying all public and private roadways that will be used for haul truck deliveries. The Construction Haul Route exhibit shall explicitly prohibit the use of Iris Avenue. The Construction Haul Route exhibit shall be subject to review and approval by the Building and Safety Division. Once approved, copies of the Construction Haul Route exhibit shall be provided to all construction contractors, and all construction contractors shall ensure that haul truck deliveries utilize only City-approved haul routes. Should alternate routes be necessary, haul trucks shall not use roadways that pass noise-sensitive land uses or residential dwellings unless prior approval is granted by the City of Moreno Valley.	Project Applicant/ Developer	City of Moreno Valley Land Development Division and Building and Safety Division	Prior to the issuance of grading permit(s) and building permits	
Threshold 2: Near-term construction activities and long-term operation of the proposed Project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 5: The Project site is located within the influence area of the March Air Reserve Base (MARB) and its 60dBA noise contour, which is an acceptable noise level for the Project's proposed land uses. As such, the Project would not expose people to excessive noise levels associated with the operation of an airport.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 6: There are no private airstrips in the vicinity of the Project site; as such, the Project has no potential to expose people residing or working in the area to excessive noise levels associated with operation of a private airstrip.	Mitigation is not required.	N/A	N/A	N/A	No Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
4.11 Transportation/Traffic					
Applicable Project Requirements					
	PR 4.11-1 The Project will construct roadway improvements (including but not limited to parkway, landscaping, and sidewalk improvements) along its frontage with Iris Avenue and Heacock Street as described in the City of Moreno Valley's Conditions of Approval for Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan PA11-0002, and individual Building Plot Plans PA11-0003, PA11-0004, PA11-0005, and PA11-0006.	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the issuance of the first (1st) occupancy permit	N/A
	PR 4.11-2 The Project will construct improvements to Cosmos Drive (including but not limited to parkway, landscaping, and sidewalk improvements) as described in the City of Moreno Valley's Conditions of Approval for Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan PA11-0002, and individual Building Plot Plans PA11-0003, PA11-0004, PA11-0005, and PA11-0006.	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the issuance of the first (1st) occupancy permit	N/A
	PR 4.11-3 The Project will construct improvements to Krameria Avenue (including but not limited to parkway, landscaping, and sidewalk improvements) as described in the City of Moreno Valley's Conditions of Approval for Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan PA11-0002, and individual Building Plot Plans PA11-0003, PA11-0004, PA11-0005, and PA11-0006.	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the issuance of the first (1st) occupancy permit	N/A
	PR 4.11-4 The Project will construct intersection improvements at each Project Driveway as described in the City of Moreno Valley's Conditions of Approval for Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan PA11-0002, and individual Building Plot Plans PA11-0003, PA11-0004, PA11-0005, and PA11-0006.	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the issuance of the first (1st) occupancy permit	N/A
	PR 4.11-5 The Project shall comply with the City of Moreno Valley Development Impact Fee (DIF), which requires the payment of a fee to the City to reduce traffic congestion by installing intersection improvements. The following DIF-funded intersection improvements are applicable:	Project Applicant/ Developer	City of Moreno Valley Department of Public Works (Transportation Engineering Division), City of Moreno Valley Land Development Division	Prior to the issuance of building permits	N/A

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	a) Frederick Street/Cactus Avenue (one eastbound through lane) b) Heacock Street/Gentian Avenue (install traffic signal) c) Heacock Street/Iris Avenue (install traffic signal, one northbound through lane, and one westbound right turn lane with overlap phasing) d) Heacock Street/Krameria Avenue (install traffic signal, one southbound left turn lane, one westbound left turn lane, and one westbound right turn lane) e) Heacock Street/San Michel Road (one southbound left turn lane and one westbound right turn lane with overlap phasing) f) Indian Street/Nandina Avenue (one northbound through lane and one southbound through lane)				
	PR 4.11-6 The Project shall participate in funding of off-site transportation improvements through the payment of Transportation Uniform Mitigation Fees (TUMF). The following TUMF-funded intersection improvements are applicable: a) I-215 Southbound Ramps/Cactus Avenue (one eastbound free right lane, one westbound left turn lane) b) I-215 Southbound Ramps/Harley Knox Blvd. (two southbound left turn lanes, one westbound left turn lane) c) I-215 Northbound Ramps/Cactus Avenue (one northbound right turn lane, one eastbound through turn lane, one westbound through lane, one westbound through lane, one westbound right turn lane) d) I-215 Northbound Ramps/Harley Knox Blvd (one northbound right turn lane, one eastbound left turn lane, one eastbound through lane, one	Project Applicant/ Developer	City of Moreno Valley Department of Public Works (Transportation Engineering Division)	Prior to the issuance of building permits	N/A

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	westbound through lane, two westbound right turn lanes) e) Frederick Street/Cactus Avenue (one westbound through lane and one eastbound through lane) f) Heacock Street/Krameria Avenue (one northbound through lane) g) Indian Street/Harley Knox Blvd. (one eastbound through lane)				
	PR 4.11-7 On-site direction signing and striping is required to be installed in conjunction with detailed construction plans for the Project and as approved by the City of Moreno Valley. The on-site signing and striping plans shall be subject to review and approval by the Planning Division, and shall clearly indicate the location of service area docks and public parking areas.	Project Applicant/ Developer	City of Moreno Valley Department of Public Works (Transportation Engineering Division)	Prior to the issuance of building permits	N/A
	PR 4.11-8 All final grading, landscaping, and street improvement plans are required to provide sight distance standards in accordance with City of Moreno Valley and California Department of Transportation (Caltrans) standards.	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the issuance of building permits	N/A
	PR 4.11-9 The minimum number of vehicle and bicycle parking spaces specified by the City of Moreno Valley Municipal Code is required to be provided.	Project Applicant/ Developer	City of Moreno Valley Department of Public Works (Transportation Engineering Division), City of Moreno Valley Planning Division	Prior to the issuance of building permits	N/A
	PR 4.11-10 Space for a future transit stop will provided via an easement provided by the Project on the eastbound side of Iris Avenue as described in the City of Moreno Valley's Conditions of Approval for Tentative Parcel Map No. 35879 (PA11-0007).	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the approval of the Final Map for Tentative Parcel Map No. 35879	N/A
	PR 4.11-11 All construction hauling vehicles shall use the City-approved truck route. Alternative routes used by vehicles hauling construction equipment, materials, or earth must receive prior approval by the City of Moreno Valley.	Project Applicant/ Developer	City of Moreno Valley Land Development Division and Building and Safety Division	Prior to the issuance of grading permit(s) and building permits	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Summary of Impacts					
Threshold 1: The proposed Project would directly and cumulatively impact the existing and planned roadway network by contributing traffic to facilities that would operate at deficient levels of service.	**MM 4.11-1** Prior to issuance of the Project's first occupancy permit, a traffic signal (programmed under the City of Moreno Valley DIF) shall be installed at the intersection of Heacock Street/Gentian Avenue	Project Applicant/ Developer	City of Moreno Valley Public Works Department (Transportation Engineering Division)	Prior to the issuance of the first (1st) occupancy permit	Significant Unavoidable Direct and Cumulative Impact
	MM 4.11-2 Prior to issuance of the first occupancy permit, the following improvements shall be in place at the intersection of Heacock Street/Iris Avenue: a) Traffic signal b) Northbound: two through lanes c) Northbound: one right turn lane	Project Applicant/ Developer	City of Moreno Valley Land Development Division and Building and Safety Division	Prior to the issuance of the first (1st) occupancy permit	
	MM 4.11-3 In the event that the City of Moreno Valley and/or the City of Perris establish a fair-share funding program(s) for improvements to any of the following intersections or immediately adjacent roadway segments that contribute to the intersection's level of service, then prior to the issuance of building permits, the Project shall contribute a fair-share payment to the funding program to address the Project's cumulative impacts to the following facilities: a) Intersection of Heacock Street/Cactus Avenue (Project's fair-share contribution is 6.4%); b) Intersection of Indian Street/San Michele Road (Project's traffic contribution is 5.8%); c) Intersection of Indian Street/Nandina Avenue (Project's traffic contribution is 7.5%); d) Intersection of Indian Street/Harley Knox Blvd (Project's traffic contribution is 5.4%).	Project Applicant/ Developer	City of Moreno Valley Land Development Division and Building and Safety Division	Prior to the issuance of the first (1st) building permit	
	MM 4.11-4 In the event that the City of Moreno Valley establishes a fair-share funding program for improvements to Indian Street between Iris Avenue and Gentian Avenue prior to the issuance of building permits, the Project shall contribute a fair-share payment to the City-established funding program to address the Project's cumulative impacts at General Plan buildout.	Project Applicant/ Developer	City of Moreno Valley Land Development Division and Building and Safety Division	Prior to the issuance of the first (1st) building permit	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold 2: The proposed Project would make a short-term cumulatively considerable contribution to impacts on four (4) I-215 freeway segments until such time as the planned widening of I-215 is complete.	The proposed Project would make a short-term cumulatively considerable contribution to impacts on four (4) I-215 freeway segments until such time as the planned widening of I-215 is complete. I-215 is under the jurisdiction of Caltrans and there is no feasible mitigation available to reduce or avoid the Project's contribution of traffic to I-215.	N/A	N/A	N/A	Significant Unavoidable Cumulative Impact (Short-Term)
Threshold 3: There is no potential for the Project to change air traffic levels or create substantial air traffic safety risks.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 4: No transportation safety hazards would be introduced as a result of the proposed Project's design.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 5: Adequate emergency access would be provided to the Project site.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 6: The proposed Project is consistent with adopted policies and programs regarding public transit, bicycle, and pedestrian facilities. The Project is designed to reduce all potential transportation mode conflicts.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
4.12 Utilities and Service Systems					
Applicable Project Requirements					
	PR 4.12-1 The Project is required to comply with all applicable provisions of the City of Moreno Valley Municipal Code Chapter 6.02 "Refuse Collection, Transfer and Disposal" and Chapter 8.80 "Recycling and Diversion of Construction and Demolition Waste."	Project Construction Manager, Project Tenants	City of Moreno Valley Building and Safety Division, City of Moreno Valley Department of Public Works (Administration/Solid Waste and Recycling Division)	During construction activities, prior to the issuance of building permits, and ongoing during long-term operation	N/A
	PR 4.12-2 The Project is required to install water and wastewater conveyance facilities in accordance with the California Green Building Standards Code and to the requirements of the Eastern Municipal Water District.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the issuance of building permits	N/A
	** Project Requirements PR 4.3-2 and PR 4.3-3 specified in Subsection 4.3, Biological Resources, and Mitigation Measures MM 4.6-3, MM 4.6-4 and MM 4.6-7 in Subsection 4.6, Greenhouse Gas Emissions, also apply to Utilities and Service Systems.*				

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Summary of Impacts					
Threshold 1: The Project would not exceed wastewater treatment requirements of the Santa Ana RWQCB. Wastewater treatment and collection services would be provided by EMWD and EMWD is required to operate all of its treatment facilities in accordance with applicable waste treatment and discharge standards and requirements set forth by the RWQCB. The proposed Project would not install or use septic systems or alternative wastewater treatment systems.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 2: Water would be conveyed to the site through EMWD's existing water line network. Wastewater would be conveyed from the site through EMWD's existing wastewater collection network and treated at existing EMWD treatment facilities. With the exception of water and sewer conveyance lines that would be installed during the Project's construction, the Project would not require the construction of any new water or wastewater systems that have the potential to cause significant environmental effects. No new or expanded capacities or entitlements would be required.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 3: Stormwater would be collected on the Project site by an on-site drainage system installed during the Project's construction. With the exception of stormwater conveyance facilities and detention basins that would be installed during the Project's construction, the Project would not require the construction of any new stormwater drainage facilities that have the potential to cause significant environmental effects.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 4: Sufficient water supplies are available to service the Project. EMWD would service the Project based on planned and existing water supplies as documented in its Urban Water Management Plan and a water supply assessment prepared for the Project.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold 5: EMWD would provide wastewater treatment services to the Project site via the Moreno Valley Regional Water Reclamation Facility and the Perris Valley Regional Water Reclamation Facility. Both of these facilities have adequate capacity to service the Project and no new or expanded facilities would be needed.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 6: There is adequate capacity available at the El Sobrante, Badlands, and Lamb Canyon landfills to accept the Project's solid wastes. Landfill capacity would not be exceeded as a result of the proposed Project.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 7: The Project would comply with all applicable federal, state, and local statutes and regulations related to solid waste disposal, reduction, and recycling.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact

1.0 INTRODUCTION

1.1 PURPOSES OF CEQA AND THIS EIR

As stated by CEQA Guidelines §15002, the basic purposes of CEQA are to:

- Inform governmental decision makers and the public about the potential, significant environmental effects of proposed [government actions (including the discretionary approval of development projects)];

- Identify the ways that environmental damage can be avoided or significantly reduced;

- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and

If a project will be approved involving significant environmental effects,

- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose.

This Environmental Impact Report (EIR, P11-005) is an informational document prepared by the City of Moreno Valley to evaluate the physical environmental effects that could be caused by constructing and operating the March Business Center Project (hereafter, the "Project"). The Project proposes governmental approvals of a General Plan Amendment (PA11-0001), Specific Plan Amendment (P11-004), Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan (PA11-0002), four (4) individual Building Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006), and other related discretionary and administrative actions that are required to construct and operate the Project described in this EIR.

The Project is proposed on a 75.05-acre property located at the southeast corner of Heacock Street and Iris Avenue in the City of Moreno Valley, Riverside County, California. The City of Moreno Valley's Specific Plan 208, titled "Moreno Valley Industrial Area Plan" (MVIAP), designates the property for development as "Industrial." The northwestern corner of the property located within an "Industrial Support Area" overlay that allows for commercial or industrial support land uses to be located within 300 feet of key roadway intersections, including Iris Avenue/Heacock Street at the property's northwestern corner. The City of Moreno Valley's General Plan Land Use Map, which is intended to reflect the land use designations applied to the site by Specific Plan 208, designates the property for development with "Business Park/Light Industrial (BP)" land uses, with the northwestern corner of the property designated as "Commercial." The General Plan's designation of the northwestern portion of the site as "Commercial" is intended to correspond to the Specific Plan's "Industrial Support Area" overlay designation. Consistent with these land use designations, the property's zoning designation is Industrial (I).

The proposed Project is consistent with the property's land use designations as applied by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208), as well as the property's zoning designation. CEQA Guidelines §15183(a) mandates that projects which are

consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified, shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. In this case, the subject property was evaluated as part of an EIR certified in 1989 for Specific Plan 208 (State Clearinghouse Number 1988080813) and as part of the City's General Plan Program EIR certified in 2006 (State Clearinghouse Number 2000091075). Therefore, as mandated by CEQA Guidelines §15183(a), this EIR focuses on project-specific effects that are peculiar to the proposed March Business Center project and its 75.05-acre property.

An Initial Study was prepared by the City of Moreno Valley pursuant to CEQA Guidelines §15063 to determine if the Project could have a significant effect on the environment. The Initial Study determined that implementation of the Project has the potential to result in significant environmental effects, and a Project EIR, as defined by CEQA Guidelines §15161, is required. As stated in CEQA Guidelines §15161, a Project EIR should "…focus primarily on the changes in the environment that would result from the development project," and "…examine all phases of the project including planning, construction, and operation."

Accordingly, and in conformance with CEQA Guidelines §15121(a), the purposes of this EIR are to: (1) disclose information by informing public agency decision makers and the public generally of the significant environmental effects associated with all phases of the Project, (2) identify possible ways to minimize or avoid those significant effects, and (3) to describe a reasonable range of alternatives to the Project that would feasibly attain most of the basic Project objectives but would avoid or substantially lessen its significant environmental effects.

1.2 SUMMARY OF THE PROJECT EVALUATED BY THIS EIR

For purposes of this EIR, the term "Project" refers to the discretionary actions required to implement the March Business Center as proposed and all of the activities associated with its implementation, including planning, construction, and ongoing operation. In summary, the Project proposes the construction and operation of a business center with up to 1,484,407 square feet (s.f.) of building space, as well as surface parking areas and drive aisles, loading docks, roadway improvements, utility infrastructure, landscaping, water quality/detention basins, and other site improvements.

The Project proposes the following discretionary actions, which are under consideration by the City of Moreno Valley:

- **General Plan Amendment (PA11-0001)** proposes to amend the Circulation Element of the City of Moreno Valley General Plan to modify the design and classification of an undeveloped segment of Krameria Avenue that is designated by the General Plan to traverse through the Project site.

- **Specific Plan Amendment (P11-004)** proposes to amend the Moreno Valley Industrial Area Plan (Specific Plan 208) to modify the design and classification of an undeveloped segment of Krameria Avenue that is designated by the Specific Plan to traverse through the Project site.

- **Tentative Parcel Map No. 35879 (PA11-0007)** proposes to subdivide the 75.05-acre Project site into four (4) parcels to accommodate the development and operation of a business park,

and would provide for roadway improvements (including dedication of public right-of-way to the City of Moreno Valley) and installation of utility infrastructure, water quality/detention basins, and other site improvements.

- **Master Plot Plan (PA11-0002) & Individual Plot Plans (PA11-0003, -0004, -0005, and –0006)** provide a land use plan, architectural plans, and landscape design for each of the four (4) buildings that are proposed to be constructed on the Project site. A maximum of 1,484,407 s.f. of building area is proposed to be provided on the site.

Refer to EIR Section 3.0, Project Description, for a detailed description of the proposed Project, including a listing of permits and actions that would be required of the City of Moreno Valley as well as other agencies and authorities.

1.3 PROJECT HISTORY

The proposed Project site is located within the geographical limits of the City of Moreno Valley's Moreno Valley Industrial Area Plan (Specific Plan 208). The Moreno Valley Industrial Area Plan was originally referred to as the Oleander Specific Plan when first approved by the City in 1989; but, was renamed as the Moreno Valley Industrial Area Plan in 2001 after the plan was amended to expand the Specific Plan boundaries. The Moreno Valley Industrial Area Plan was amended again in 2002 in order to consolidate the "Business Park," "Mixed Use," "Light Industry," and "Heavy Industrial" land use designations of the original Specific Plan within a single "Industrial" land use classification.

The Project site was the subject of previous environmental review under CEQA as part of an EIR certified in 1989 for the Oleander Specific Plan (SCH No. 1988080813). The Project site also was evaluated as part of the City of Moreno Valley's General Plan Program EIR (SCH No. 2000091075), certified July 11, 2006.

In 2008, an application was submitted to the City of Moreno Valley to develop the Project site as an business center, consistent with the property's General Plan and Specific Plan land use designations and zoning designation of Industrial (I). The application, which consisted of a General Plan Amendment (PA08-0057), Specific Plan Amendment (P08-060), Tentative Parcel Map (PA07-0151), Master Plot Plan (PA07-0152), and four (4) individual Building Plot Plans (PA07-0153, PA07-0154, PA07-0155, PA07-0156) was approved by the Moreno Valley City Council on August 25, 2009 (hereafter, the "prior project"). In June 2010, the approval was rescinded in response to judgment entered in an action entitled *Residents for a Livable Moreno Valley v. City of Moreno Valley*, Riverside County Superior Court, Case No. RIC 536464 (hereafter, the "Action").

A Mitigated Negative Declaration (MND) was prepared by the City of Moreno Valley pursuant to CEQA Guidelines Article 6 (§§15070 though 15075) that supported the City's decision to approve the prior project. The MND concluded that although development of the site as proposed by the prior project would have resulted in significant environmental effects, all of those effects could be mitigated to below established thresholds of significance. On September 18, 2009, the Action was filed in Riverside County Superior Court to challenge approval of the prior project pursuant to the MND. In June 2010, the Court entered judgment and issued a peremptory writ of mandate in the Action, directing the City of Moreno Valley to set aside its approval of the prior project and the

MND on the ground that there was substantial evidence that construction noise resulting from the prior project would pose a significant impact on the environment.

This EIR evaluates a newly-submitted set of applications for development of the Project site, as described in detail in Section 3.0, Project Description. The currently proposed Project is nearly identical in design to the prior project that was rescinded. The proposed Project's physical layout and development intensity remain unchanged from the prior project approval; the only differences are relatively minor, technical changes to conform to newly-updated City plans and standards (*e.g.*, modified net parcel acreages, roadway cross-section details, landscaping plans).

This EIR represents a full and complete analysis of the proposed Project as required by CEQA. In Section 4.0, Environmental Analysis, some of the methodologies and conclusions differ from those previously presented in the MND to take into account, but not limited to: 1) a baseline environmental setting of June 2011 (the date this EIR's Notice of Preparation (NOP) was released for public review), 2) input from the public about the environmental issues of concern as identified in responses to the NOP; 3) the availability of new technical studies and information applicable to the Project, the Project site, and/or the environmental resources potentially affected by the Project; 4) amendments to the State CEQA Guidelines; 5) amendments to and adoption of state and federal regulations pertaining directly or indirectly to the environmental resources potentially affected by the Project; 6) the release of updated computer models for calculating air quality emissions (California Emissions Estimating Model™ (CALEEMod™, 2011) and traffic distribution (Syncro Version 7, Build 759) impacts; and 7) additions to CEQA case law.

1.4 LEGAL AUTHORITY

This EIR has been prepared in accordance with all criteria, standards, and procedures of CEQA (California Public Resource Code Section 21000 *et seq.*) and the CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15000 *et seq.*).

Pursuant to CEQA §21067 and CEQA Guidelines Article 4 and §15367, the City of Moreno Valley is the Lead Agency under whose authority this EIR has been prepared. "Lead Agency" refers to the public agency that has the principal responsibility for carrying out or approving a project. Serving as the Lead Agency and before taking action to approve the Project, the City of Moreno Valley has the obligation to: (1) ensure that this EIR has been completed in accordance with CEQA; (2) review and consider the information contained in this EIR as part of its decision making process; (3) make a statement that this EIR reflects the City of Moreno Valley's independent judgment; (4) ensure that all significant effects on the environment are eliminated or substantially lessened where feasible; and, if necessary (5) make written findings for each unavoidable significant environmental effect stating the reasons why mitigation measures or project alternatives identified in this EIR are infeasible and citing the specific benefits of the proposed Project that outweigh its unavoidable adverse effects (CEQA Guidelines §§15090 through 15093).

Pursuant to CEQA Guidelines §§15040 through 15043, and upon completion of the CEQA review process, the City of Moreno Valley will have the legal authority to do any of the following:

- Approve the proposed Project;

- Require feasible changes in any or all activities involved in the Project in order to substantially lessen or avoid significant effects on the environment;

- Disapprove the Project, if necessary, in order to avoid one or more significant effects on the environment that would occur if the Project was approved as proposed; or

- Approve the Project even through the Project would cause a significant effect on the environment if the City makes a fully informed and publicly disclosed decision that: 1) there is no feasible way to lessen the effect or avoid the significant effect; and 2) expected benefits from the Project will outweigh significant environmental impacts of the Project.

This EIR fulfills the CEQA environmental review requirements for the proposed General Plan Amendment (PA11-0001), Specific Plan Amendment (P11-004), Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan (PA11-0002), four (4) individual Building Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006) and all other governmental discretionary and administrative actions related to the Project.

This EIR is an informational document intended for use by the City of Moreno Valley decision makers, Trustee and Responsible agencies, and members of the general public in evaluating the physical environmental effects of the proposed Project. As mandated by CEQA Guidelines §15183(a), this EIR focuses on the specific environmental effects that are peculiar to the proposed Project and its property, because designation of the property for industrial/business park development was previously and adequately evaluated in accordance with CEQA by two prior EIRs (an EIR certified in 1989 for Specific Plan 208 (State Clearinghouse Number 1988080813) and the City's General Plan Program EIR certified in 2006 (State Clearinghouse Number 2000091075)). As such, that analysis does not need to be repeated.

1.5 RESPONSIBLE AND TRUSTEE AGENCIES

Section 21104 of the California Public Resource Code requires that all EIRs be reviewed by state responsible and trustee agencies (see also CEQA Guidelines §15082 and §15086(a)). As defined by CEQA Guidelines §15381, "the term 'Responsible Agency' includes all public agencies other than the Lead Agency which have discretionary approval power over the project." A Trustee Agency is defined in CEQA Guidelines §15386 as "a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California."

For the proposed Project, Table 1-1, *Responsible and Trustee Agencies*, lists the agencies that are identified as Responsible and/or Trustee Agencies with respect to the environmental resources potentially affected by the proposed Project. The table also identifies the action or discretionary decision each agency is required to make associated with the Project.

Table 1-1 Responsible and Trustee Agencies

AGENCY	ENVIRONMENTAL RESOURCE	ACTION/DECISION
Responsible Agencies		
U.S. Army Corps of Engineers	Jurisdictional wetlands and waterways	Issuance of a Section 404 Permit pursuant to the Clean Water Act.
Trustee Agencies		
California Department of Fish and Game	Jurisdictional wetlands and waterways	Issuance of a Section 1602 Streambed Alteration Agreement pursuant to the Fish and Game Code.
Santa Ana Regional Water Quality Control Board	Jurisdictional wetlands and waterways and protection of water resources (water quality)	Issuance of a Section 401 Permit pursuant to the Clean Water Act. Issuance of National Pollution Discharge Elimination System (NPDES) Permit to ensure that during and after construction, on-site water flows do not result in siltation, other erosional actions, or degradation of surface or subsurface water quality.

1.6 EIR SCOPE, FORMAT, AND CONTENT

1.6.1 EIR SCOPE

As a first step in complying with the procedural requirements of CEQA, an Initial Study was prepared by the City of Moreno Valley to preliminarily identify the environmental issue areas that may be adversely impacted by the Project. Following completion of the Initial Study, the City filed a NOP with the California Office of Planning and Research (State Clearinghouse) to indicate that an EIR would be prepared to evaluate the Project's potential to impact the environment. The NOP was filed with the State Clearinghouse and distributed to Responsible Agencies, Trustee Agencies, and other interested parties on June 13, 2011, for a 30-day public review period. The objective of distributing the NOP for public review was to solicit responses to assist the City in identifying the full scope and range of potential environmental concerns associated with the Project so that these issues could be fully examined in this EIR. In addition, a publicly noticed EIR Scoping Meeting was held at the Moreno Valley City Hall on June 29, 2011, which provided members of the general public an additional opportunity to comment on the scope and range of potential environmental concerns to be addressed in this EIR.

As a result of the Initial Study and in consideration of all comments received by the City on the NOP and during the Scoping Meeting, this EIR evaluates the Project's potential to cause adverse effects to the following environmental issue areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology/Soils
- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Noise
- Transportation/Traffic
- Utilities/Service Systems

The Initial Study, NOP, public review distribution list, and written comments received by the City during the 30-day NOP public review period are provided in *Technical Appendix A* to this EIR. Substantive issues raised in response to the NOP are summarized below in Table 1-2, *Summary of NOP Comments*. The purpose of this table is to present the primary environmental issues of concern raised during the NOP review period. The table is not intended to list every comment received by the City during the NOP review period. Regardless of whether or not a comment is listed in the table, all applicable comments received in responses to the NOP and at the EIR Scoping Meeting are addressed in this EIR.

Table 1-2 Summary of NOP Comments

• Potential project-related impacts to circulation facilities located in the City of Riverside.
• Potential exposure of the Project site to adverse noise and safety impacts and potential land use compatibility issues with March Air Reserve Base.
• Potential impacts to wells used to monitor the March Air Reserve Base groundwater plume.
• Potential impacts to sensitive cultural resources that may be present beneath the property's surface.
• Potential exposure of people and/or structures on the Project site to hazards associated with the 100-year floodplain.
• Potential impacts to public services, in consideration of financial issues facing government agencies.
• Potential impacts to the State highway system and other regionally significant roadways.
• Potential impacts on air quality and to human health resulting from Project construction and anticipated operation (including direct and indirect effects from Project traffic).

The issue of near-term construction-related noise is identified by the Lead Agency as an area of controversy associated with the proposed Project. In consideration of all comments received in response to the NOP, the City of Moreno Valley has identified no additional areas of controversy raised by agencies and/or the public.

1.6.2 EIR FORMAT AND CONTENT

This EIR contains all of the information required to be included in an EIR as specified by the CEQA Statutes and Guidelines (California Public Resources Code, Section 21000 *et. seq.* and California Code of Regulations, Title 14, Chapter 5). CEQA requires that an EIR contain, at a minimum, certain specified content. Table 1-3, *Location of CEQA Required Topics*, provides a quick reference in locating the CEQA-required sections within this document.

Table 1-3 Location of CEQA-Required Topics

CEQA REQUIRED TOPIC	CEQA GUIDELINES REFERENCE	LOCATION IN THIS EIR
Table of Contents	§15122	Table of Contents
Summary	§15123	Section S.0
Project Description	§15124	Section 3.0
Environmental Setting	§15125	Section 2.0
Consideration and Discussion of Environmental Impacts	§15126	Section 4.0
Significant Environmental Effects Which Cannot be Avoided if the Proposed Project is Implemented	§15126.2(b)	Section 4.0 & Subsection 5.1
Significant Irreversible Environmental Changes Which Would be Caused by the Proposed Project Should it be Implemented	§15126.2(c)	Subsection 5.2
Growth-Inducing Impact of the Proposed Project	§15126.2(d)	Subsection 5.3
Consideration and Discussion of Mitigation Measures Proposed to Minimize Significant Effects	§15126.4	Section 4.0 & Table S-1
Consideration and Discussion of Alternatives to the Proposed Project	§15126.6	Section 6.0
Effects Not Found to be Significant	§15128	Subsection 5.4
Organizations and Persons Consulted	§15129	Section 7.0 & Technical Appendices
Discussion of Cumulative Impacts	§15130	Section 4.0

In summary, the content and format of this EIR is as follows:

- **Section 1.0, Introduction,** provides introductory information about the CEQA process and the responsibilities of the City of Moreno Valley, serving as the Lead Agency for this EIR.

- **Section 2.0, Environmental Setting,** describes the environmental setting, including descriptions of the Project site's physical conditions and surrounding context. The existing setting is defined as the condition of the Project site and surrounding area at the date this EIR's NOP was released for public review (June 13, 2011).

- **Section 3.0, Project Description,** serves as the EIR's Project Description for purposes of CEQA and contains a level of specificity commensurate with the level of detail proposed by the Project, including the summary requirements pursuant to CEQA Guidelines §15123.

- **Section 4.0, Environmental Analysis**, provides an analysis of potential direct, indirect, and cumulative impacts that may occur with implementation of the proposed Project. A conclusion concerning significance is reached for each discussion; mitigation measures are presented as warranted. The environmental changes identified in Section 4.0 and throughout this EIR are referred to as "effects" or "impacts" interchangeably. The CEQA Guidelines also identify the terms "effects" and "impacts" as being synonymous (CEQA Guidelines §15358). In the environmental analysis subsections of Section 4.0, the existing conditions are disclosed that are pertinent to the subject area being analyzed, accompanied by a specific analysis of physical impacts that may be caused by implementation of the proposed Project. The analyses are based in part upon technical reports that are appended to this EIR. Information also is drawn from other sources of analytical materials that directly or indirectly relate to the proposed Project and cited in Section 7.0, References. Where the analysis demonstrates that a physical adverse environmental effect may or would (without undue speculation) occur, feasible mitigation measures are recommended to reduce or avoid the significant effect. In most cases, implementation of the mitigation measures would reduce the adverse environmental impact to below a level of significance. If mitigation measures are not available or feasible to reduce an identified impact to below a level of significance, the environmental effect is identified as a significant and unavoidable adverse impact, for which a statement of overriding considerations would need to be adopted by the City of Moreno Valley pursuant to CEQA §15093.

- **Section 5.0, Other CEQA Considerations**, includes specific topics that are required by CEQA. These include a summary of the Project's significant and unavoidable environmental effects, a discussion of the significant and irreversible environmental changes that would occur should the Project be implemented, as well as potential growth-inducing impacts of the proposed Project. Section 5.0 also includes a discussion of the potential environmental effects that were found not be significant during this EIR's Initial Study and NOP process and that, therefore, do not require a detailed evaluation in this EIR.

- **Section 6.0, Project Alternatives,** describes and evaluates alternatives to the proposed Project that could reduce or avoid the Project's adverse environmental effects. CEQA does not require an EIR to consider every conceivable alternative to the Project but rather to consider a reasonable range of alternatives that will foster informed decision making and public participation. A range of three (3) alternatives is presented in Section 6.0.

- **Section 7.0, References,** cites all reference sources used in preparing this EIR and lists the agencies and persons that were consulted in preparing this EIR. Section 7.0 also lists the persons who authored or participated in preparing this EIR.

- **Technical Appendices.** CEQA Guidelines §15147 states that the "information contained in an EIR shall include summarized…information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public," and that the "placement of highly technical and specialized analysis and data in the body of an EIR shall be avoided." Therefore, the detailed technical studies, reports, and supporting documentation that were used in preparing this EIR are bound separately as Technical Appendices. The Technical Appendices are available for review at the City of Moreno Valley Community and Economic Development Department, Planning Division, 14177

Frederick Street, Moreno Valley, California, 92552, during the City's regular business hours or can be requested in electronic form by contacting the City. The individual technical studies, reports, and supporting documentation that comprise the Technical Appendices are as follows:

A: Initial Study, Notice of Preparation, and Written Comments on the NOP
B1: Air Quality Impact Analysis
B2: Mobile Source Health Risk Assessment
C: Biological Resources Report
D: Cultural Resources Report
E: Geotechnical Investigation
F: Greenhouse Gas Analysis
G1: Phase I Environmental Assessment
G2 Addendum to Phase I Environmental Assessment
H1: Hydrology Report
H2: Water Quality Management Plan
I1: Noise Report
I2: Supplemental Construction Noise Analysis
J: Traffic Impact Analysis
K1: Water Supply Assessment
K2: Supplement to Water Supply Assessment
L: Written Correspondence

- **Documents Incorporated by Reference.** CEQA Guidelines §15150 allows for the incorporation "by reference all or portions of another document…[and is] most appropriate for including long, descriptive, or technical materials that provide general background but do not contribute directly to the analysis of a problem at hand." Documents, analyses, and reports that are incorporated into this EIR by reference are listed in Section 7.0, References, of this EIR. The purpose of incorporation by reference is to assist the Lead Agency in limiting the length of an EIR. Where this EIR incorporates a document by reference, the document is identified in the body of the EIR, citing the appropriate section(s) of the incorporated document and describing the relationship between the incorporated part of the referenced document and this EIR.

2.0 ENVIRONMENTAL SETTING

2.1 REGIONAL SETTING AND LOCATION

The 75.05-acre Project site is located in the City of Moreno Valley, in western Riverside County, California. Western Riverside County abuts San Bernardino County to the northeast, Orange County to the west and San Diego County to the south. The site's location in a regional context is shown on Figure 3-1, *Regional Map*, in Section 3.0, Project Description.

Riverside County is located in an urbanizing area of southern California commonly referred to as the Inland Empire. The Inland Empire is an approximate 28,000 square mile region comprising San Bernardino County, Riverside County, and the eastern tip of Los Angeles County. According to the Southern California Association of Governments (SCAG), this region is a fast-growing metropolitan area with large amounts of available land for future growth (SCAG, 2008a, 59-68). According to U.S Census data, the 2010 population of Riverside County was 2,189,641 (U.S. Census Bureau, 2011). SCAG forecast models predict that the population of Riverside County will grow to approximately 3.59 million persons (an approximate 1.4 million person increase) by the Year 2035 (SCAG, 2008b).

Unincorporated areas of Riverside County in the vicinity of the Project site include the unincorporated communities of Woodcrest and Mead Valley to the west and southwest, the unincorporated communities of Reche Canyon and Pigeon Pass to the north, and the unincorporated community of Lakeview and rugged terrain known as the "Badlands" to the east. The Project site is generally located to the north and northeast of the City of Perris and to the southeast of the City of Riverside. Additionally, the March Air Reserve Base (ARB) is located immediately west of the site, west of Heacock Street.

The Project site's relationship to regional aspects of land use, traffic, air quality, hydrology, and geology, among other physical environmental conditions, are identified in Section 4.0, Environmental Analysis, of this EIR.

2.2 LOCAL SETTING AND LOCATION

The Project site is located within the southern portion of the City of Moreno Valley. The property is rectangular-shaped and located immediately east of Heacock Street, approximately 1,300 feet west of Indian Street, and immediately south of Iris Avenue. A majority of the 75.05-acre site is located north of the Perris Valley Channel, with the exception of 1.84 acres of the site located to the southwest of the Channel. Figure 3-2, *Vicinity Map*, in Section 3.0, Project Description, depicts the specific location of the Project site. The property encompasses Assessor Parcel Numbers (APNs) 316-020-032, 316-020-033, 316-020-034, 316-020-035, 316-020-036 and occupies a portion of Section 30, Township 3 South, Range 3 West of the San Bernardino Base and Meridian.

Land within the southwestern portion of the City, including the Project site, is located with an area subject to the City's adopted Moreno Valley Industrial Area Plan (Specific Plan 208). Property in the Area Plan's boundaries was once rural in nature, but over the past decade has been transitioning into an important industrial and economic center for the City, as called for by the Area Plan. Several large-scale industrial and warehouse buildings have been developed and there are several approved development projects in this area that are pending construction. West of the Project site is the March Air Reserve Base (ARB), which was established as a military airport in 1918 and operated as March

Air Force Base until 1996 when it was transitioned to a reserve base. Today, the property contains an airfield, military uses, aviation-related uses, and areas designated for civilian development called the March Inland Port Airport (IPA). Subsection 2.3, below, describes the conditions surrounding the Project site in more detail.

2.3 SURROUNDING LAND USES AND DEVELOPMENT

Figure 2-1, *Surrounding Land Uses and Development*, illustrates the existing land uses and land use designations in the vicinity of the Project site. To the west of the Project site is Heacock Street, beyond which is the March ARB/IPA, which is governed by the March Joint Powers Authority (JPA). The JPA has the same land use authorities over the properties under its jurisdiction as would any city or other municipal government. Interstate 215 (I-215) is located west of the March ARB/IPA, about 1.4 miles west of the Project site.

Immediately abutting the Project site to the east is a rectangular-shaped parcel of vacant land comprising about 72 acres that is approved for industrial development by the City of Moreno Valley (Indian Business Park, PA07-0079, PA07-0080, PA07-121, P07-0093, and PA08-0018). As of June 2011 (when the NOP for this EIR was released for public review), construction of the Indian Business Park had not begun; however, this parcel is expected to be developed as approved, containing 1,560,046 s.f. of building area for business park/light industrial uses. East of the future Indian Business Center (east of Indian Street) are detached single-family residences, two (2) schools (Rainbow Ridge Elementary School and March Middle School) and three (3) churches (Imani Praise Fellowship, New Light Missionary Baptist Church, and the Strong Tower Church of God in Christ). Further to the east (east of Perris Boulevard) are two (2) additional schools (Val Verde Academy and Morning Dove Christian Academy).

To the north of the Project site is Iris Avenue, north of which are two vacant, undeveloped parcels that are approved by the City of Moreno Valley for future development as industrial and residential land uses. The land immediately north of the Project site and Iris Avenue is approved for the development of the Moreno Valley Industrial Park (PA07-0035, PA07-0039, and PA08-0021), which includes the development of an approximately 31-acre site with up to 619,127 square feet of building area for business park/light industrial uses. Immediately north of the approved but yet undeveloped Moreno Valley Industrial Park is a vacant parcel approved for the development of 135 detached, single-family homes (TM34748; located at the southeast corner of Gentian Avenue and Heacock Street). North of Iris Avenue and diagonal from the Project site's northeastern corner is an existing development of detached single-family homes, separated from Iris Avenue by a solid block wall.

Properties to the immediate south and southeast of the Project site are undeveloped and are designated by the Moreno Valley General Plan and the Moreno Valley Industrial Area Plan for business park/light industrial land uses. Two (2) existing industrial/warehouse buildings are located approximately 0.15-mile south of the Project site.

2.4 PLANNING CONTEXT

Provided in this subsection is a description of the Project site's land use designations, as applied by planning documents adopted by the City of Moreno Valley. Refer to Subsection 4.9, Land Use and Planning, for a more thorough discussion of the Project site's planning context, including a discussion of applicable local and regional plans.

2.4.1 CITY OF MORENO VALLEY GENERAL PLAN

The City of Moreno Valley's prevailing planning document is its General Plan, dated July 11, 2006. As depicted on Figure 2-2, *Existing General Plan Land Use Designations*, the City's General Plan designates a majority of the Project site for Business Park/Light Industrial (BP) land uses. The northwest corner of the site is designated for Commercial (C) land uses. The Business Park/Light Industrial land use designation calls for employee intensive uses, including manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities, with a building intensity up to 1.0 floor area ratio (FAR). The Commercial land use designation calls for local retail and service commercial activities, with a building intensity up to 1.0 FAR. A more detailed discussion of the Project's relationship to the General Plan is provided in Subsection 4.9, Land Use and Planning.

2.4.2 MORENO VALLEY INDUSTRIAL AREA PLAN (SPECIFIC PLAN 208)

The Project site is located within the geographic boundaries of the Moreno Valley Industrial Area Plan (Specific Plan 208). As stated in the Area Plan, the Moreno Valley Industrial Area Plan "establishes development regulations and design standards that will ensure quality development which will positively contribute to the City's industrial employment base…" (City of Moreno Valley, 2002 I-4). The Moreno Valley Industrial Area Plan designates a majority of the subject property for Industrial land uses. The northwestern corner of the site is designated as an Industrial Support Area (see Figure 2-3, *Moreno Valley Industrial Area Plan Map*). The Industrial designation provides for a wide range of industrial land uses, while the Industrial Support Area provides for services to support industrial services without affecting the integrity of lands available for industrial uses.

2.4.3 ZONING

The development regulations and design standards contained within the Moreno Valley Industrial Area Plan (Specific Plan 208) supersede the zoning standards contained in the City's Municipal Code. The Area Plan applies the "Industrial (I)" zoning designation to the proposed Project site, which permits a wide range of industrial and industrial/business related support uses. As shown on Figure 2-3, the Moreno Valley Industrial Area Plan also designates the northeastern corner of the Project site as part of a "300' Residential Buffer," which requires the maintenance of a 300-foot buffer between industrial and residential land uses, although permitted uses may encroach into this buffer zone as necessary to maintain the integrity of industrial uses. Refer to the Moreno Valley Industrial Area Plan (Specific Plan 208), Section III, Development Standards and Guidelines, for more information. The Moreno Valley Industrial Area Plan is herein incorporated by reference pursuant to CEQA Guidelines §15150 and is available for review at the physical location indicated in Subsection 7.2, Documents Incorporated by Reference.

2.5 EXISTING PHYSICAL SITE CONDITIONS

Pursuant to CEQA Guidelines §15125, the physical environmental condition for purposes of establishing the setting of an EIR is the environment as it existed at the time the EIR's NOP was released for public review. The NOP for this EIR was released for public review on June 13, 2011, and the following subsections provide a description of the Project site's physical environmental condition as of that approximate date. More information regarding the Project's site's environmental setting is provided in the various subsections of Section 4.0, Environmental Analysis.

2.5.1 LAND USE

The area surrounding the Project site, as described previously in Subsection 2.3, is characterized by undeveloped fields and developed lands. The Project site is not used for agricultural production and is not located in an agricultural area. There are no Williamson Act Contract lands or Agricultural Preserves located on the site or in the surrounding area.

The Project site is undeveloped and routinely maintained (*i.e.*, disked) as required by the Riverside County Fire Marshall to remove vegetation from the site to reduce the risk of fire. A horse track and a small structure or residence were previously located in the northwestern portion of the subject property; however, both of these features have been removed from the site. The former locations of these features are visible on Figure 2-3, *Aerial Photograph*. Also visible on the photograph is a segment of the Perris Valley Channel that extends through the southwestern corner of the Project site. This reach of the Perris Valley Channel consists of a trapezoidal concrete-lined facility near Heacock Street and transitions to an earthen channel approximately 150 feet east of the roadway. The Channel is enclosed by chain-link fencing. The Channel is considered not-a-part of the Project site.

Refer to Subsection 4.9, Land Use and Planning, for a more thorough discussion of the Project site's existing land use setting.

2.5.2 TOPOGRAPHY AND AESTHETICS

The Project site is generally flat, with the exception of an earthen mound and a small berm located in the northern portion of the property. Topographic elevations range from a high point of approximately 1,502 feet above mean sea level (AMSL) to a low point of approximately 1,488 feet AMSL, resulting in a maximum topographic relief of approximately 14 feet. Aesthetically, the Project site is characterized as a flat, vacant parcel. There are no unique topographic or aesthetic features present on the property. Figure 2-5, *Topographic Map*, depicts the Project site's existing topographic conditions.

Refer to Subsection 4.1, Aesthetics, for a more thorough discussion of the Project site's existing topographic and aesthetic setting.

2.5.3 GEOLOGY

As documented in the Project's geotechnical report (*Technical Appendix E* to this EIR), the Project site is located within the Peninsular Range Geomorphic Province, which is a prominent natural geomorphic province that extends from the Santa Monica Mountains approximately 900 miles south to the tip of Baja California, Mexico, and is bounded to the east by the Colorado Desert. The Peninsular Range is characterized by steep, elongated ranges and valleys that generally trend northwesterly. More specifically, the Project site is situated within the Perris Block unit, which is an eroded mass of Cretaceous and older crystalline and metamorphic rock.

Based on geological investigations of the Project site conducted by NorCal Engineering (refer to *Technical Appendix E* of this EIR), the earth materials on the site consist of topsoil and alluvium, underlain by bedrock. Topsoil generally consists of dry to damp and loose silty sands to sandy silts with intermixed organics (i.e., roots of surface vegetation) to an average depth of 12 to 16 inches. Beneath the topsoil there is undisturbed alluvium consisting of medium dense/stiff and damp to moist

silty and clayey sands to sandy silts. No groundwater was encountered during subsurface soil borings conducted by NorCal. Based on information available from Eastern Municipal Water District's (EMWD's) West San Jacinto Groundwater Basin Management Plan 2009 Annual Report, groundwater is known to occur at depths of approximately 44 feet below the existing ground surface (EMWD 2010).

The Project site is not located within an active Alquist-Priolo earthquake zone or a City-designated fault hazard zone, meaning that no active faults are mapped or known to exist on the Project site or in the immediate surrounding area (*Technical Appendix E* 5-6). The nearest known active fault is the San Jacinto Valley section of the San Jacinto Fault zone (Casa Loma Fault) located approximately eight (8) miles east of the Project site.

Refer to Subsection 4.5, Geology and Soils, for a more thorough discussion of the Project site's existing geologic setting.

2.5.4 HYDROLOGY

The Project site is located in the Santa Ana River watershed, which drains a 2,650 square-mile area and is the principal surface flow water body within the region (SAWPA, 2010 Ch. 3). The San Jacinto River drains the area in the vicinity of the Project site. It starts in the San Jacinto Mountains (approximately 30 miles southeast of the proposed Project site), runs westerly through the City of Canyon Lake, and typically discharges into Lake Elsinore. In wet years, the San Jacinto River will overflow the lake and connect with the Santa Ana River through the Temescal Wash (SAWPA, 2010 Ch. 3).

As documented in the Project's hydrology report (*Technical Appendix H1* to this EIR) and water quality management plan (*Technical Appendix H2* to this EIR), the Perris Valley Storm Drain Channel traverses the southwestern corner of the Project site and conveys drainage towards the southeast and south towards the San Jacinto River. Under existing conditions, the Perris Valley Channel splits the Project site into two separate drainage areas. The majority of the Project site is located north of the Channel and flows are directed in a southerly direction, with flows discharging at a point approximately 260 feet west of the southwestern corner of the Project site. The portion of the Project site located southwest of the Channel generally drains towards the southeast, and discharges at the southeast corner of the property. Flows from both portions of the site are conveyed to the Perris Valley Channel. Flows are then conveyed by the Perris Valley Channel to the San Jacinto River.

Refer to Subsection 4.8, Hydrology and Water Quality, for a more thorough discussion of the Project's site existing hydrologic setting.

2.5.5 AIR QUALITY AND CLIMATE

The Project site is located in the 6,745-square-mile South Coast Air Basin (SCAB), which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SCAB is within the jurisdiction of South Coast Air Quality Management District (SCAQMD), the agency charged with bringing air quality in the SCAB into conformity with federal and state air quality standards. The SCAB is currently not in attainment of state and/or federal standards established for Ozone (O_3) one-hour and eight-hour, particulate

matter (PM_{10} and $PM_{2.5}$), and Nitrogen Oxides (NO_X), and also not in attainment for Lead (Pb) in Los Angeles County (CARB, 2011).

As documented in the Project's air quality report (*Technical Appendix B1* to this EIR), although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. More than 90% of the SCAB's rainfall occurs from November through April. Temperatures during the year range from an average minimum of 47°F in January to over 100°F maximum in the summer. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year.

Refer to Subsection 4.2, Air Quality, and Subsection 4.6, Greenhouse Gas Emissions, for a more thorough discussion of the Project's site existing air quality and climate setting.

2.5.6 BIOLOGICAL RESOURCES

The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on the conservation of sensitive plant and animal species and their associated habitats in western Riverside County. The City of Moreno Valley approved the MSHCP on January 13, 2004. The MSHCP identifies a Criteria Area, in which habitat conservation efforts are targeted. The Project site is not located with the Criteria Area, as shown on Figure 2-6, *MSHCP Criteria Areas*. As such, the site is not targeted for open space conservation as part of the regional plan for habitat conservation (Riverside County, 2003c, Vol. 1 Ch. 3).

According to biological field surveys conducted on the Project site in 2011 (refer to *Technical Appendix C*), the property is comprised of disturbed/developed land and ruderal vegetation. One special-status plant (smooth tarplant, *Centromadia pungens* ssp. *laevis*) was detected, as well as two special-status animals (the western burrowing owl (*Athene cunicularia hypugaea*) and the California horned lark (*Eremophila alpestris actia*)). Adjacent properties surrounding the site are comprised of undeveloped disked fields with ruderal vegetation and developed lands.

Refer to Subsection 4.3, Biological Resources, for a more thorough discussion of the Project's site existing biological setting.

2.5.7 CULTURAL RESOURCES

According to Figure 5.10-3 of the Moreno Valley General Plan Final EIR, mountainous areas in the eastern portion of the City, known as the Badlands have the greatest potential for encountering paleontological resources in Moreno Valley (City of Moreno Valley, 2006b). The Project site is not located in close proximity to the Badlands and is characterized by the City's General Plan as having a low potential for containing paleontological resource deposits. There are no known paleontological resources located on or beneath the surface of the Project site, and their potential for discovery is low.

From an archaeological perspective, prehistory within the Project area is defined by six cultural periods: Early Man Period, Paleo-Indian Period, Pinto Period, Gypsum Period, Saratoga Springs Period, and Shoshonean Period. Each of these cultural periods is discussed in Subsection 4.4,

Cultural Resources. In summary, human habitation of southern California dates back to approximately 13,000 years ago. Over a series of cultural periods, the area transitioned from a hunting and gathering society, to settlements of small groups of people, to large occupations near natural water sources, to formations of distinct ethnographic groups. Research indicates that the Project site is located within the traditional cultural territory of the Cahuilla Indians (Jones & Stokes 2008 10), although correspondence received by the City of Moreno Valley from Luiseno tribes as part of the Project's SB18 Native American consultation process contends that the Project site is within the traditional use area of Luiseno tribes (Ontiveros, 2011a; Hoover, 2011b). Although no archaeological resources are known to be present on the Project site, resources have the potential to exist below the surface and be discovered during the Project's ground disturbing construction activities (Jones & Stokes 2008 15).

Historically, the Project site is not known to have historical significance to the region. The Perris Valley Storm Drain Channel is the only structure that is present on the site (Horowitz, 2011). It was built sometime between 1945 and 1967 (likely in the 1950s when this type of reclamation work was common) and is a typical earth and concrete lined drainage channel. It possesses no distinctive features and is not identified as being eligible for the California Register of Historic Resources.

Refer to Subsection 4.4, Cultural Resources, for a more thorough discussion of the Project's site existing cultural setting.

2.5.8 TRANSPORTATION

I-215, Interstate 15 (I-15), State Route 60 (SR-60) and State Route 91 (SR-91) are major vehicular travel routes in the region of the Project site. The Project site is located approximately 1.5 miles east of I-215, about midway between the Cactus Avenue and Harley Knox Boulevard interchanges (which are depicted on EIR Figure 4.11-12). From the Cactus Avenue interchange, I-215 connects with I-15 approximately 24 roadway miles to the south and connects with SR-60 approximately 2.5 roadway miles to the north.

The Project site is located immediately south of Iris Avenue, east of Heacock Street, and about 1,300 feet west of Indian Street. Vehicular movement in the vicinity of the Project site is primarily composed of passenger vehicles. A review of traffic count data revealed that trucks represent between 0% and 12% of the overall vehicle mix at various intersections around the Project site (Urban Crossroads 2011f 45). The City of Moreno Valley's designated truck route includes Cactus Avenue, Frederick Street, Heacock Street, San Michele Road, Nandina Avenue, and Indian Street south of San Michele Road.

Regarding other forms of transportation, field observations indicated that there is nominal pedestrian and bicycle activity in the area (Urban Crossroads 2011f 45). The Riverside Transit Agency (RTA) operates bus services along Cactus Avenue, Indian Street, John F. Kennedy Drive, Iris Avenue and Krameria Avenue through various routes (Routes 11, 19 and 20). There is currently no commuter rail service in the City of Moreno Valley, but a route is planned along the west side of I-215 called the Perris Valley Line, with a planned station at Alessandro Boulevard, approximately 4.6 roadway miles from the Project site (RCTC, n.d.). East of the Project site is the March ARB/IPA, at which the airport is used by military and government aircraft with limited use by civilian aircraft. Although air cargo service was discontinued in 2008, the March ARB/IPA Joint Land Use Study (March JPA, 2010 Ch. 2), discloses the potential for increased general aviation use.

Refer to Subsection 4.11, Transportation, for a more thorough discussion of the Project's site existing transportation setting.

2.5.9 NOISE

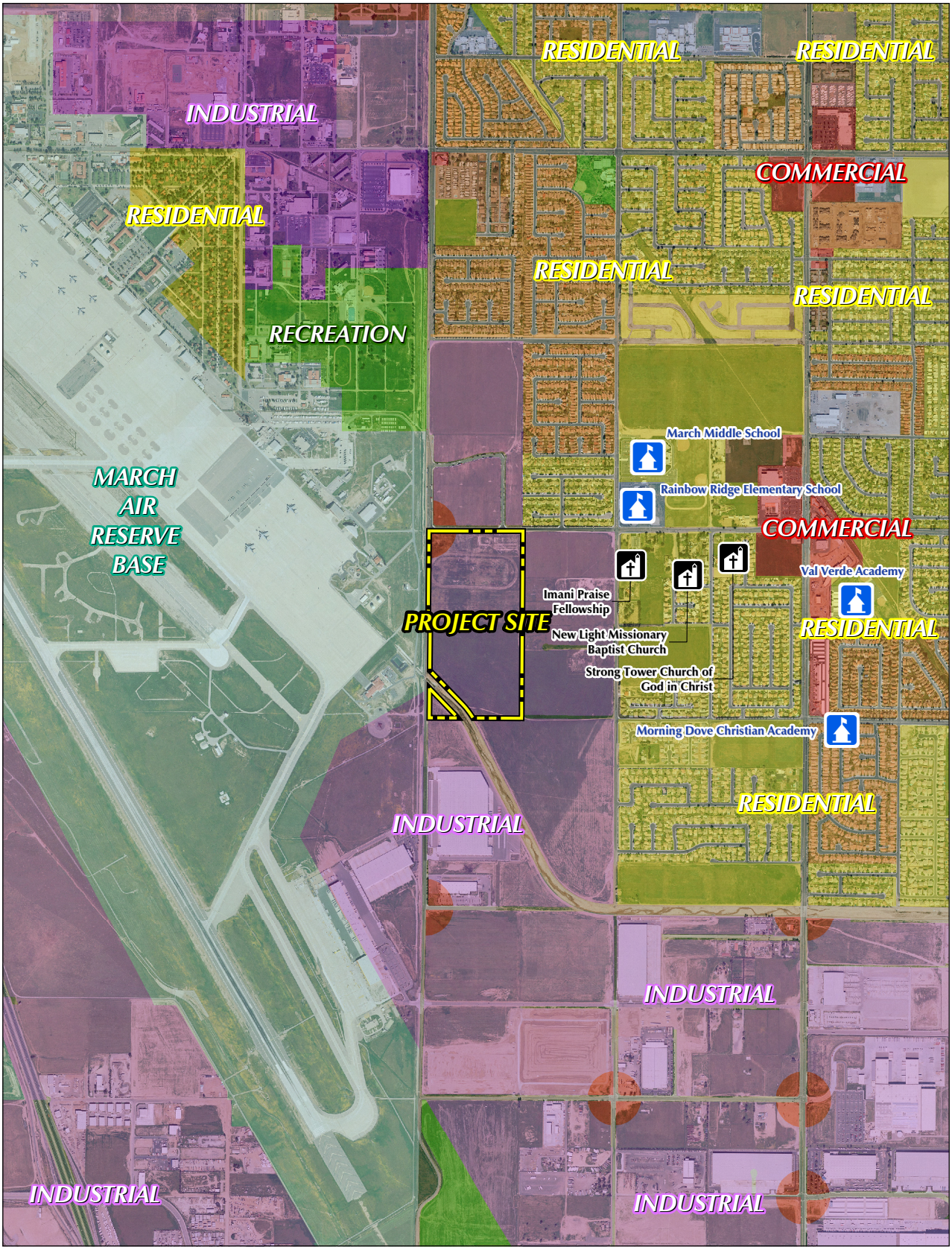
Primary sources of noise in the Project vicinity include vehicle noise, aircraft noise, and noise from construction and operational activities associated with development. To determine the existing acoustical setting of the Project site, 24-hour measurements were taken in the Project study area by Urban Crossroads, Inc. at three (3) locations on June 15 and 16, 2011. These locations included: 1) along Indian Avenue approximately 1,350 feet east of the Project site; 2) north of Iris Avenue approximately 100 feet from the northeast corner of the Project site; and 3) approximately 650 feet south of the southwest corner of the Project site in the flight path of March AFB. Measured hourly noise levels ranged from 52.7 to 77.3 decibels (dBA Leq), resulting in Community Noise Equivalent Levels (CNELs) ranging from 64.7 CNEL to 70.5 CNEL (Urban Crossroads 2011d Ch. 5).

Refer to Subsection 4.8, Noise, for a more thorough discussion of the Project's site existing noise setting.

2.5.10 UTILITIES AND SERVICE SYSTEMS

The Project site is located in the service area of Eastern Municipal Water District (EMWD) for domestic water and sewer service. EMWD manages the domestic water supply and delivery service within its 555 square mile service area, including the City of Moreno Valley, all or portions of six other cities, and a portion of unincorporated Riverside County. As documented in EMWD's 2010 Urban Water Management Plan, EMWD has four sources of water supply: imported water from the Metropolitan Water District (MWD), recycled water, local groundwater production, and desalted groundwater (EMWD, 2011 Ch. 3). EMWD has an adopted Water Shortage Contingency Plan (EMWD Ordinance 117.2) that applies regulations and restrictions on the delivery of and consumption of water during water shortages. Regarding sewer collection and treatment, EMWD collects and treats all of the wastewater collected in its service area to tertiary standards. Treated wastewater is disposed of by means of customer sales, discharge to Temescal Creek, and through percolation and evaporation while stored in EMWD ponds (EMWD, 2011, Ch. 3). Solid waste collection and disposal in the Project area is conducted by Waste Management of the Inland Empire, a division of Waste Management, Inc. Landfills that have the potential of receiving solid waste from the Project site include the El Sobrante Landfill, the Badlands Sanitary Landfill, and the Lamb Canyon Sanitary Landfill (Ross 2011).

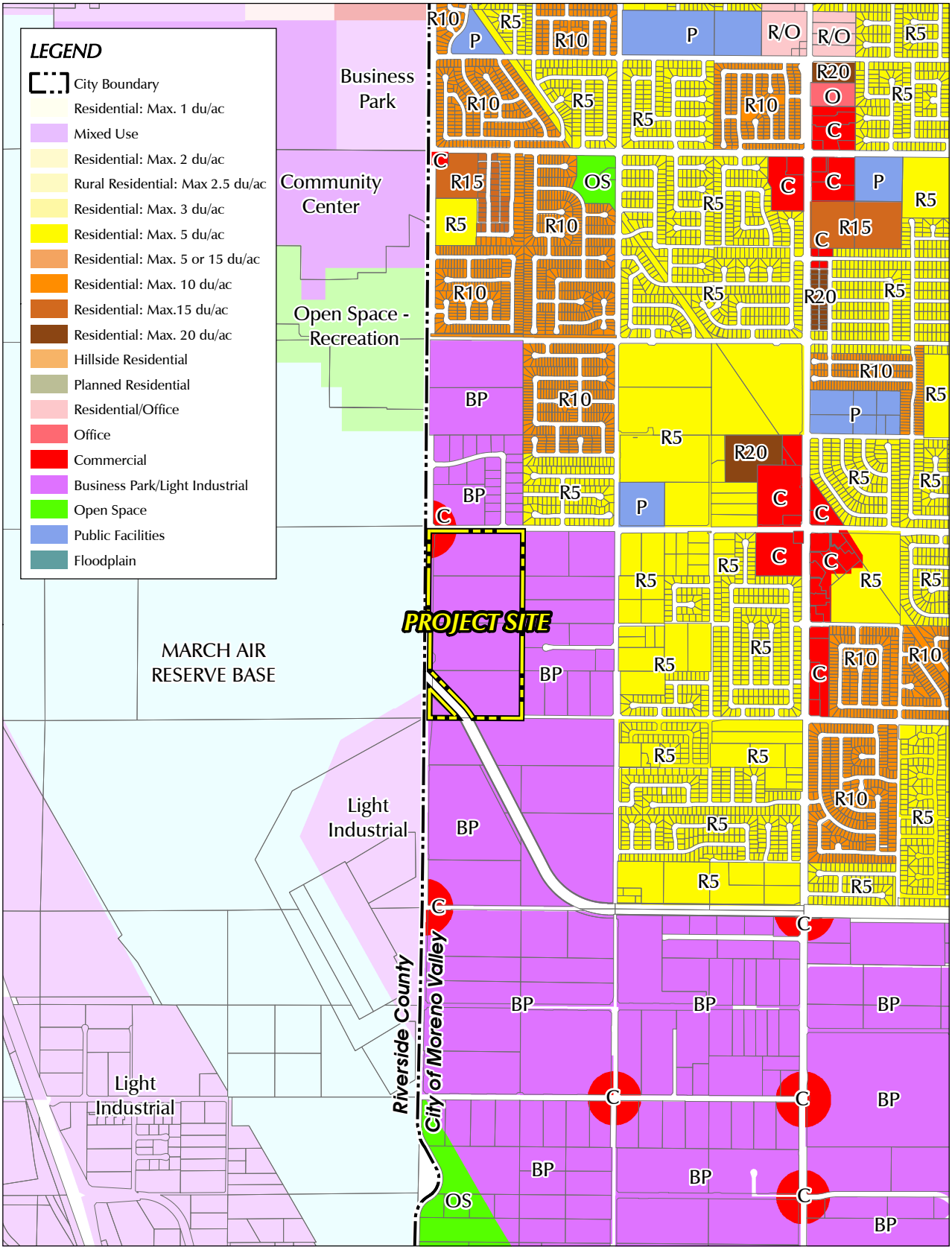
Refer to Subsection 4.12, Utilities and Service Systems, for a more thorough discussion of the Project's site existing setting in relation to utilities and public services.



Source: RCTLMA (2011), Eagle Aerial (2008)

Figure 2-1

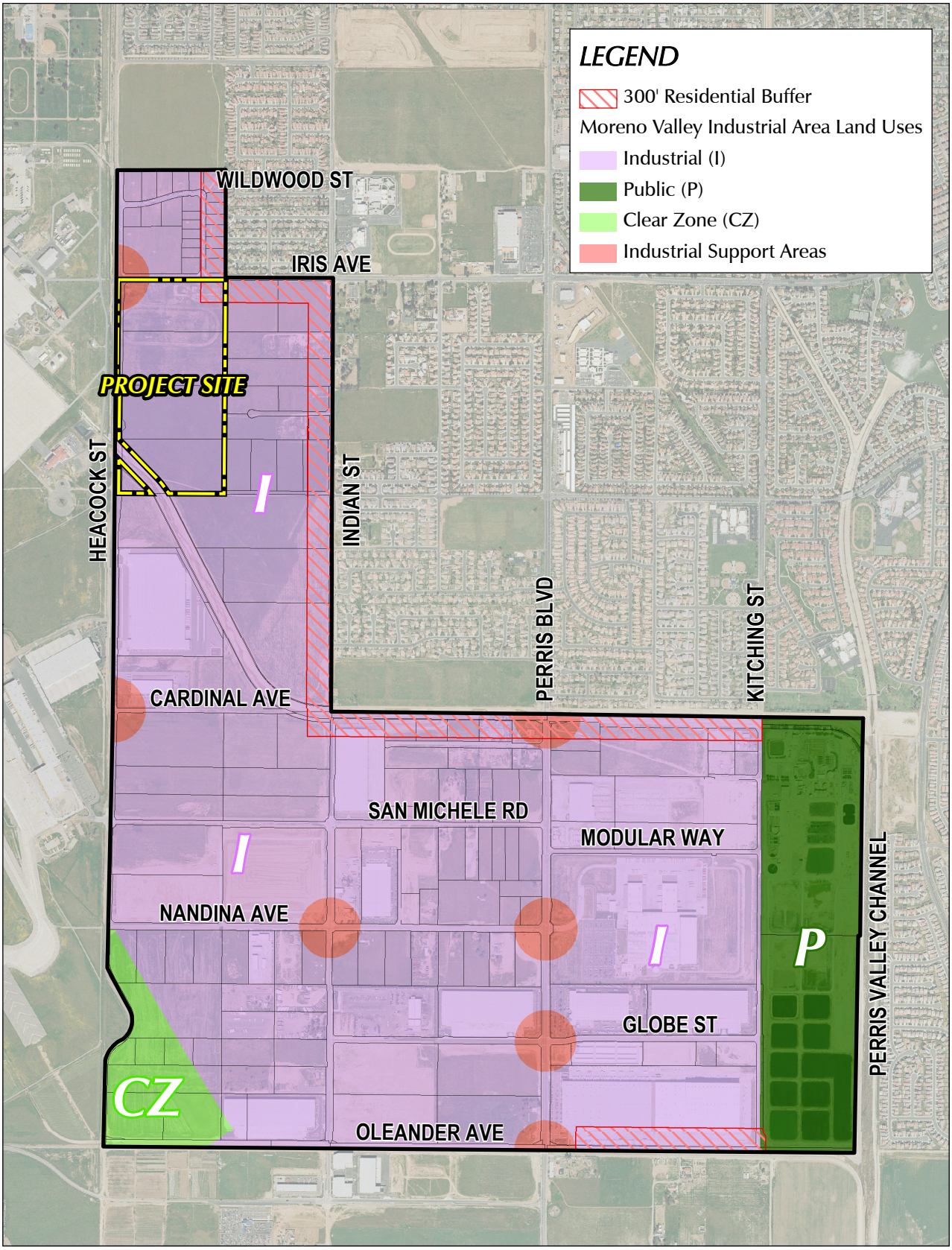
Surrounding Land Uses and Development



Source: RCTLMA (2011), City of Moreno Valley

Figure 2-2

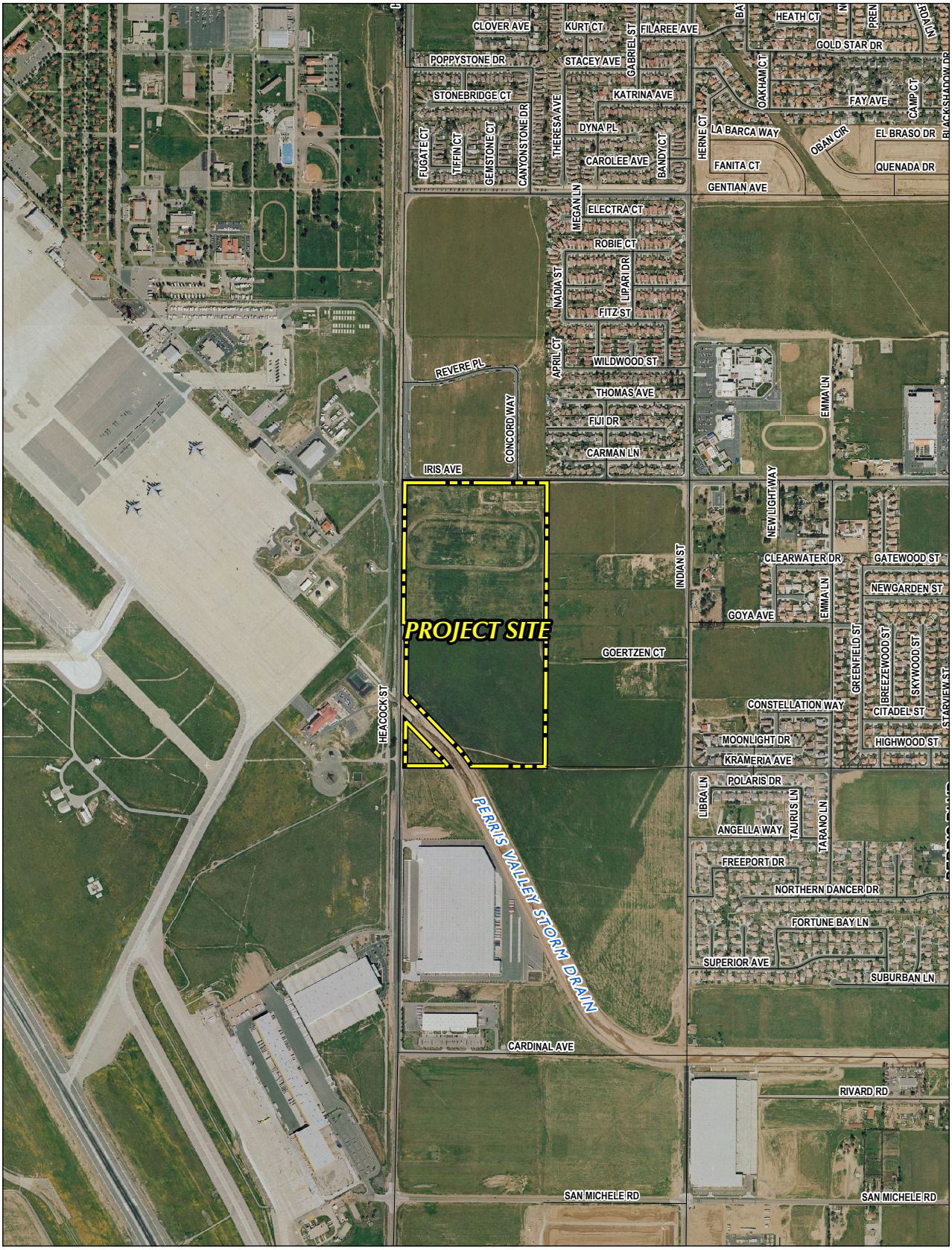
Existing General Plan Land Use Designations



Source: RCTLMA (2011), Eagle Aerial (2008), Moreno Valley Industrial Area Plan

Figure 2-3

Moreno Valley Industrial Area Plan Map

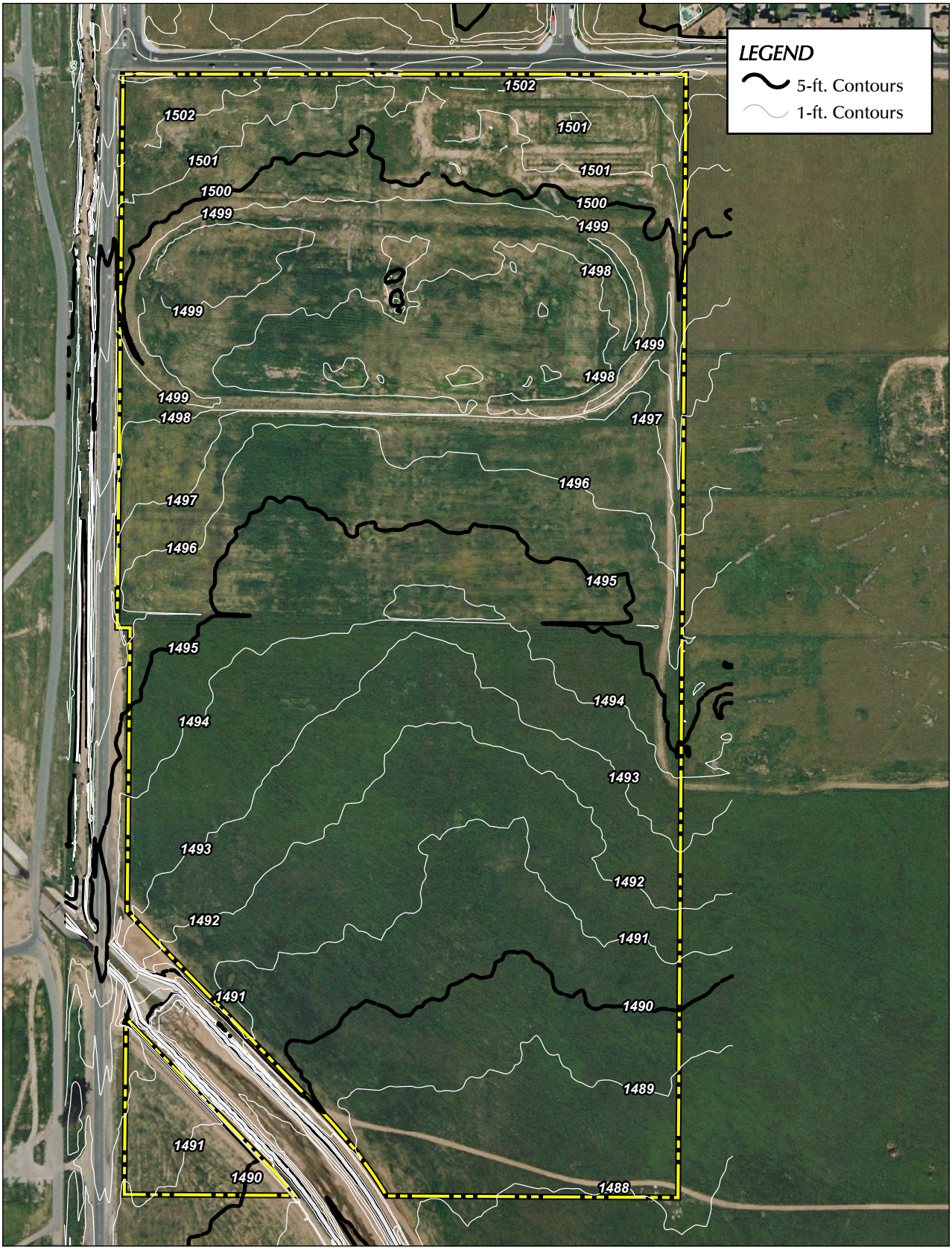


Source: RCTLMA (2011), Eagle Aerial (2008)

Figure 2-4

Aerial Photograph

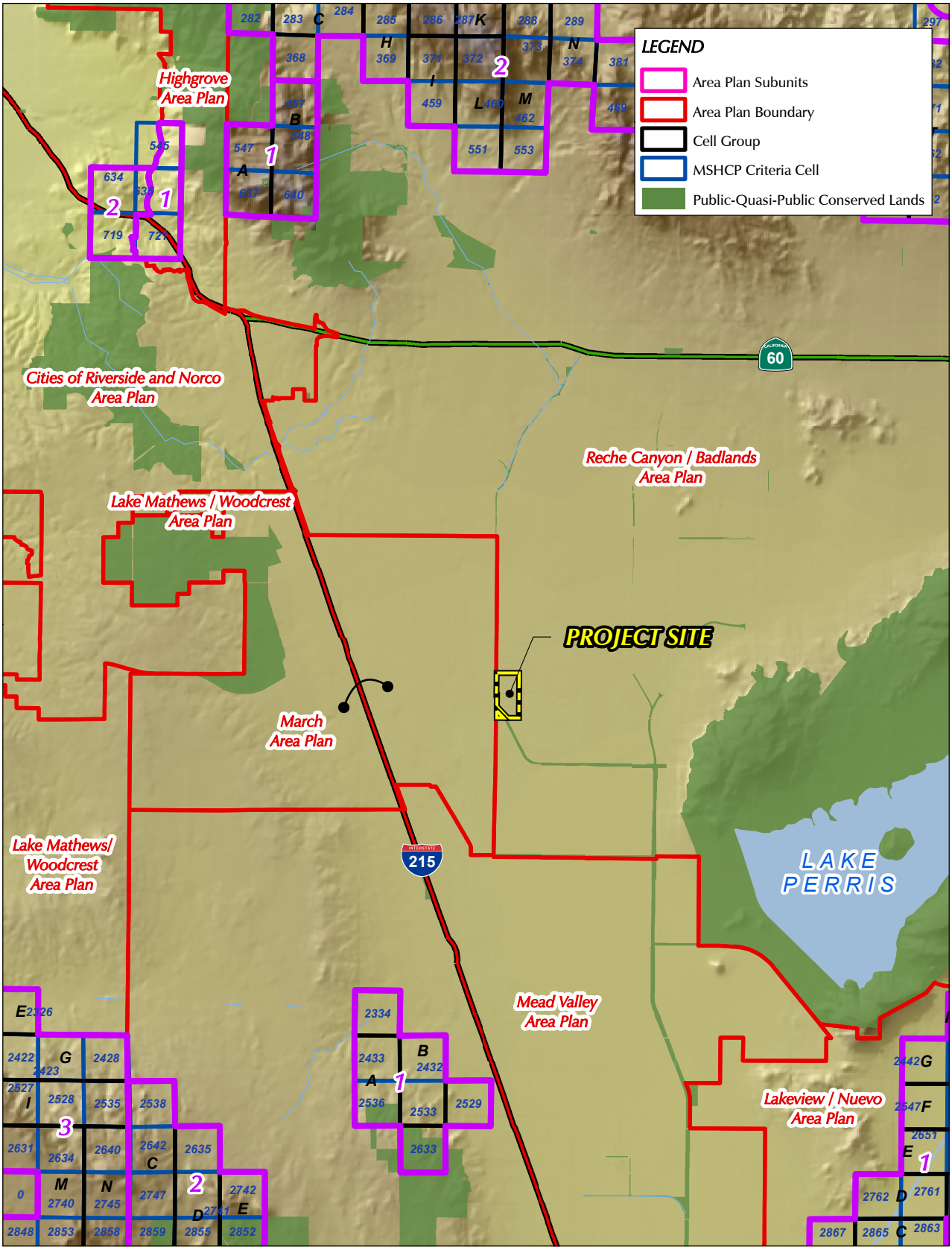
0 0.125 0.25 Miles



Source: RCTLMA (2011), Eagle Aerial (2008), Theines Eng.

Figure 2-5

Topographic Map



Source: RCTLMA (2011), RCIP

Figure 2-6

MSHCP Criteria Areas

3.0 PROJECT DESCRIPTION

This section provides all of the information required by CEQA Guidelines §15124, including a description of the Project's precise location and boundaries; a statement of the Project's objectives; a description of the Project's technical, economic, and environmental characteristics; and a description of the intended uses of this EIR including a list of the government agencies that are expected to use this EIR in their decision-making processes, a list of the permits and approvals that are required to implement the Project, and a list of related environmental review and consultation requirements .

This EIR (P11-005) analyzes the physical environmental effects associated with all components of the Project, including planning, construction, and ongoing operation. Governmental approvals requested from the City of Moreno Valley to implement the Project include a General Plan Amendment (PA11-0001), Specific Plan Amendment (P11-004), Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan (PA11-0002), and four (4) individual Building Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006). These applications, as submitted to the City of Moreno Valley by the Project Applicant, are herein incorporated by reference pursuant to CEQA Guidelines §15150 and are available for review at the physical location indicated in Subsection 7.2, Documents Incorporated by Reference. All other discretionary and administrative approvals that would be required of the City of Moreno Valley or other governmental agencies are also within the scope of the Project analyzed in this EIR.

In summary, the March Business Center would provide 1,484,407 square feet (s.f.) of building space on the subject property, as well as surface parking areas and drive aisles, loading docks, roadway improvements, utility infrastructure, landscaping, water quality/detention basins, and other site improvements. A complete description of the Project is provided in this Section 3.0.

3.1 PROJECT LOCATION

The Project site consists of 75.05 acres in the southern portion of the City of Moreno Valley, Riverside County, California (see Figure 3-1, *Regional Map*). From a regional perspective, the Project site is located to the north of the City of Perris, to the southeast of the City of Riverside, and to the south, east, and west of unincorporated areas in Riverside County. Regional access to the site is provided via I-215, which is located approximately 1.4 miles to the west of the site, and SR-60, which is located approximately 3.6 miles to the north of the site. Refer to Subsection 2.1 for more information about the Project's regional setting.

At the local scale, the Project site is located immediately south of Iris Avenue, east of Heacock Street, and about 1,300 feet west of Indian Avenue, as illustrated on Figure 3-2, *Vicinity Map*, and Figure 3-3, *USGS Topographic Map*. As shown on these exhibits, a majority of the site is located immediately north of the Perris Valley Channel, with the exception of approximately 1.84 acres located southwest of the Channel. Refer to Subsection 2.2 for more information about the Project's local setting.

STATEMENT OF OBJECTIVES

The primary objective of the proposed Project is to develop an industrial business center on the Project site in conformance with the land use designations applied to the property by City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208), as well as

comply to the greatest feasible extent with other applicable City of Moreno Valley standards, codes, and policies. The following is a list of specific objectives sought by the proposed Project.

A. To develop an industrial business center in conformance with the land use designations applied to the property by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208).

B. To develop a business center that can accommodate light industrial and warehouse distribution tenants within close proximity to regional transportation routes.

C. To develop a business center that is financially feasible to construct and operate.

D. To make efficient use of a property by achieving a minimum Project-wide floor area ratio (FAR) of 0.50.

E. To attract new businesses and jobs to the City of Moreno Valley, thereby providing a more equal jobs/housing balance both in the City and in Riverside County and reducing the need for members of the existing local workforce to commute outside the area for employment.

F. To modify the planned alignment of Krameria Avenue to enable efficient development of the Project site and improve circulation and public safety within the area of the Moreno Valley Industrial Area Plan.

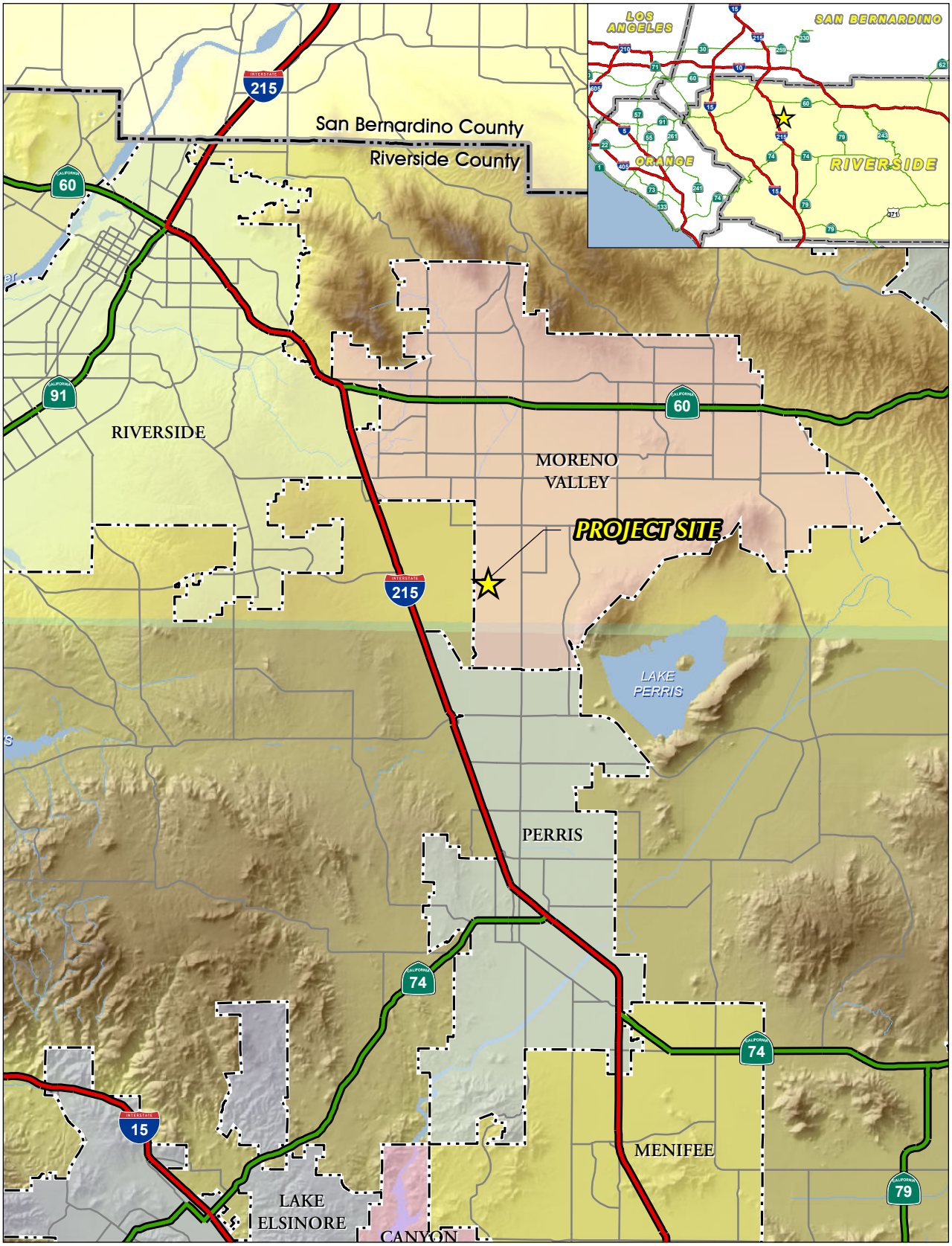
G. To develop a business center with an architectural design and operational characteristics that are complementary with existing and planned development in the immediate vicinity.

H. To construct a business center that incorporates energy efficiency and low water use principles in order to increase environmental quality during construction and operation.

3.2 PROJECT'S COMPONENT PARTS

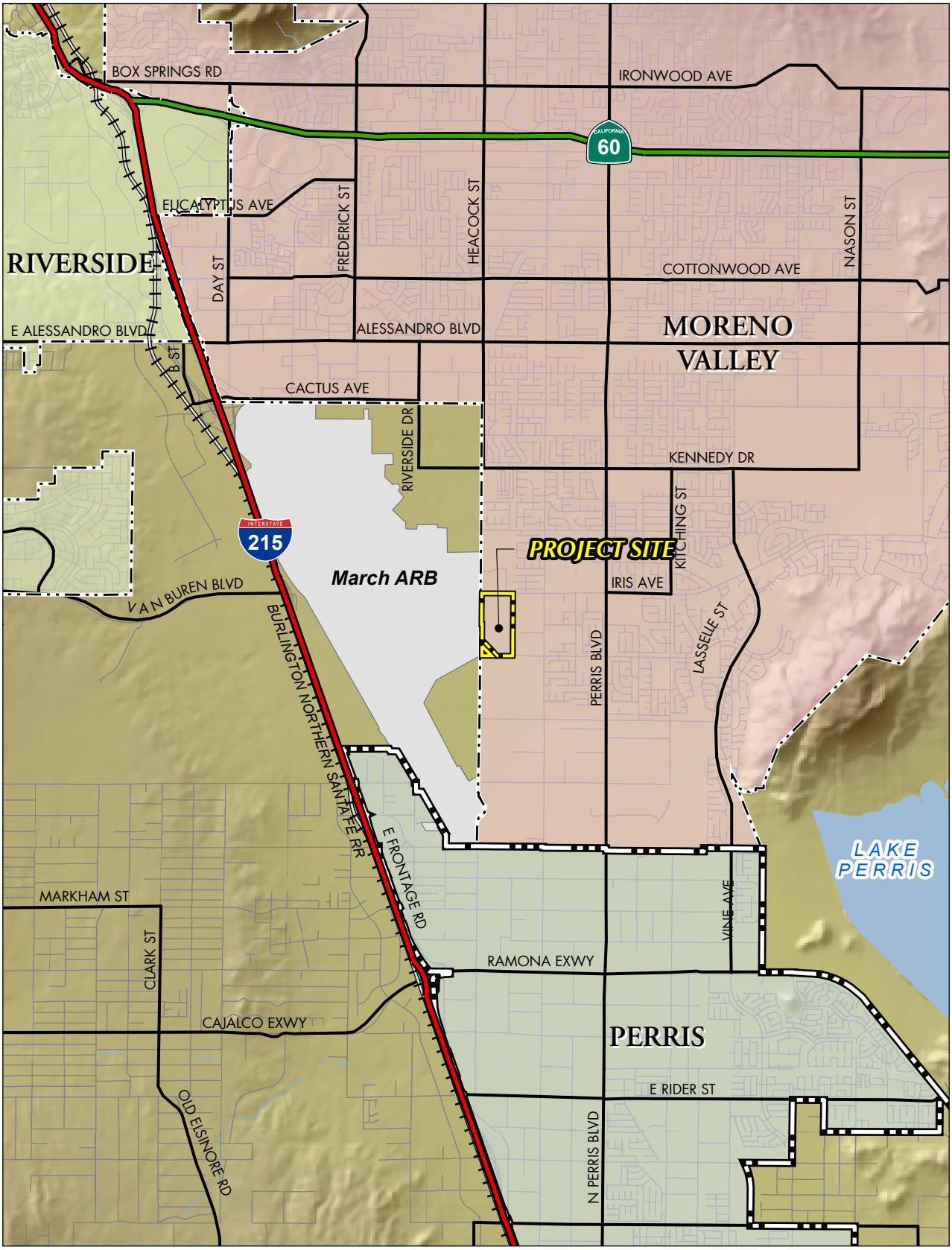
The Project consists of a proposal to develop a 75.05-acre property with business center land uses. The principal discretionary actions required of the City of Moreno Valley to implement the proposed Project include the adoption of a General Plan Amendment (PA11-0001) and Specific Plan Amendment (P11-004), approval of Tentative Parcel Map No. 35879 (PA11-0007), a Master Plot Plan (PA11-0002) and four (4) individual Building Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006), and certification of this EIR (P11-005). Additional discretionary and administrative actions that would be necessary to implement the proposed Project are listed in Table 3-4, *Matrix of Project Approvals/Permits*, at the end of this EIR Section.

A detailed description of the proposed discretionary approvals associated with the Project is provided in the following subsections.



Source: RCTLMA (2011)

Figure 3-1
Regional Map



Source: RCTLMA (2011)

0 3,000 6,000 Feet

Figure 3-2
Vicinity Map

Source: USGS

Figure 3-3
USGS Topographic Map

3.2.1 TENTATIVE PARCEL MAP NO. 35879

A. General Description

Tentative Parcel Map No. 35879 (TPM No. 35879) proposes to subdivide the 75.05-acre property into four (4) parcels, as depicted on Figure 3-4, *Tentative Parcel Map No. 35879*. In addition, TPM No. 35879 designates areas of public road dedication and identifies the size and location of needed water, sewer, drainage, and utility infrastructure. Developable parcels would range in size from 1.89 gross acres (1.54 net acres) to 53.43 gross acres (47.67 net acres). A summary of the parcel sizes proposed by TPM No. 35879 is provided on Table 3-1, *TPM No. 35879 Statistical Summary*.

Table 3-1 TPM No. 35879 Statistical Summary

PARCEL NUMBER	GROSS ACREAGE	NET ACREAGE
1	53.43	47.70
2	13.10	11.76
3	6.63	5.93
4	1.89	1.54
Total	**75.05***	**66.93**

***The Project site includes 3.38 acres of land located within public right-of-ways owned by the City of Moreno Valley for Heacock Street and Iris Avenue.
Source: TPM No. 35879 prepared by Thienes Engineering, May 23, 2011.

B. Public Roadway Dedications and Improvements

The existing public street network servicing and abutting the Project site consists of Heacock Street to the west and Iris Avenue to the north. The Project site includes 3.38 acres of land owned by the City of Moreno Valley that is dedicated public right-of-way for Heacock Street and Iris Avenue. As part of TPM No. 35879, additional land would be dedicated to the City of Moreno Valley for the widening of Iris Avenue. Additionally, the Project would dedicate land area within the Project site for the construction of Krameria Avenue and Cosmos Street. Public roadway dedications and improvements that are proposed as part of the Project are described below and depicted on Figure 3-5, *Circulation Plan*.

- **Heacock Street.** Heacock Street is a north-south oriented roadway located along the Project site's western boundary. Under existing conditions, this segment of Heacock Street is constructed as a two-lane roadway within a 118.5-foot right-of-way. The proposed Project would improve Heacock Street from Iris Avenue to the north side of the bridge over the Perris Valley Channel and from the south side of the bridge to the southern Project boundary to its ultimate full-width section as an Arterial roadway. The proposed Project would improve Heacock Street as will be required by the final conditions of approval for the proposed Project and applicable City of Moreno Valley standards.

- **Iris Avenue.** Iris Avenue is an east-west oriented roadway located along the northern boundary of the Project site. Under existing conditions, this segment of Iris Avenue is constructed as a two-lane road with an 80-foot wide right-of-way. The proposed Project would widen the Iris Avenue public right-of-way along the northern Project frontage (south side of the street) by an additional 20 feet to provide the ultimate half-width of the Arterial roadways will be required by the final conditions of approval for the proposed Project and applicable City of Moreno Valley standards. The Project would offer a sidewalk easement to

the City for the portion of the sidewalk that extends outside of the public right-of-way along the Project's frontage.

- **Krameria Avenue.** Krameria Avenue would be constructed as a north-south roadway from the southeast corner of the Project site to an intersection with proposed Cosmos Street, and as an east-west roadway between Heacock Street and proposed Cosmos Street. As described in further detail in EIR Subsections 3.2.3 and 3.2.4, a General Plan Amendment and a Specific Plan Amendment would be required for the proposed configuration of Krameria Avenue. The east-west segment of Krameria Avenue between Heacock Street and proposed Cosmos Street would be improved to the full-width standard of an Industrial Collector roadway as part of the Project. The north-south segment of Krameria Avenue between Cosmos Street and the southeast corner of the Project site would be improved as an Industrial Collector. The Project would dedicate land to the City of Moreno Valley to accommodate Krameria Avenue. The proposed Project would improve Krameria Avenue as will be required by the final conditions of approval for the proposed Project and applicable City of Moreno Valley standards.

- **Cosmos Street.** Cosmos Street is a proposed on-site north-south roadway that would provide secondary access to the eastern portion of the Project site. Cosmos Street would begin approximately 870 feet north of the Project's southeastern boundary and would extend north approximately 1,485 feet, where it is designed to terminate as a cul-de-sac internal to the Project site and abutting the eastern boundary of the subject property (as depicted on Figure 3-4). Cosmos Street is proposed as an Industrial Collector roadway. The proposed Project would dedicate and improve Cosmos Street as will be required by the final conditions of approval for the proposed Project and applicable City of Moreno Valley standards.

A complete description of other Project-required transportation improvements is provided in EIR Section 4.11, *Transportation and Traffic*.

C. *Public Right-of-Way Vacations*

Planned public rights-of-way (or portions thereof) that were previously offered to a city, county, or other government agency but that are no longer needed for public purposes can be "vacated" by the government body. As part of the Project, two (2) roadway rights-of-way that were previously offered to the City of Moreno Valley but that were never accepted by the City for public use are proposed to be vacated as part of TPM No. 35879. These rights-of-way are also known by the term "paper streets" because their alignments exist only on maps, with no physical attributes constructed on the landscape.

As shown on Figure 3-6, *Street Vacations*, the Krameria Avenue "paper street" located along the Project's southern boundary is proposed to be vacated. In addition, an un-named cul-de-sac "paper street" that extends approximately 1,000 feet east from Heacock Street and traverses proposed Parcels 2 and 3 of proposed TPM No. 35879 would be vacated. Proposed street vacations would occur as part of the Final Map for TPM No. 35879.

D. Water and Wastewater Conveyance Facilities

❑ Water Service

Water service would be provided to the Project by EMWD. Under pre-development conditions, water service is available to the Project site via 8-inch line and 18-inch main installed beneath Iris Avenue and a 20-inch main installed beneath Heacock Street. As depicted on Figure 3-7, *Conceptual Water Plan*, the Project proposes to construct a 12-inch public water main beneath Cosmos Street, which would connect to the existing 18-inch water main beneath Iris Avenue. In addition, the Project proposes two connection points to the existing 20-inch water line beneath Heacock Street. All proposed water facilities would be designed in accordance with EMWD standards and would require review and approval by EMWD prior to their installation. The locations of proposed fire hydrants also are shown on Figure 3-7, which require review and approval by the Riverside County Fire Department prior to installation. Additional information about the Project's water system can be found in EIR Subsection 4.12, Utility and Service Systems. Refer to EIR Subsection 3.2.5, Project Construction and Operational Characteristics, for a discussion of the Project's projected daily potable water demand.

❑ Wastewater Service

Wastewater conveyance and treatment service to the Project site would be provided by EMWD. Under pre-development conditions, wastewater service is available to the Project site via an 8-inch sewer main installed beneath Iris Avenue and a 30-inch sewer main installed beneath Heacock Street (the line beneath Heacock Street diverts to the southeast at the Perris Valley Channel and runs parallel to the channel along the southern Project boundary).

As illustrated on Figure 3-7, *Conceptual Sewer Plan*, the proposed Project would install a 10-inch public sewer main beneath the east-west segment of Krameria Avenue that is proposed to be constructed through the Project site. This sewer main would collect wastewater flows from Parcels 1, 2, and 3 by gravity flow. A second 10-inch sewer main would branch off from the line beneath Krameria Avenue along the boundary between Parcels 2 and 3 and would convey wastewater flows to the existing 30-inch sewer main at the southern boundary of the Project site (north of the Perris Valley Channel).

In order to provide wastewater service for Parcel 4, the Project would install a new 8-inch sewer line beneath the existing developed Heacock Street right-of-way. The new sewer main beneath Heacock Street would travel from the southwestern corner of the Project site south to Cardinal Avenue (approximately 1,400 feet in length) where it would connect to an existing sewer main with adequate available capacity to serve the Project. The wastewater conveyance lines proposed to be installed off site would be installed beneath existing paved public roadways rights-of-ways. All proposed sewer facilities would be designed in accordance with EMWD standards and would require review and approval by EMWD prior to their installation. Additional information about the Project's wastewater collection facilities is provided in Subsection 4.12, Utility and Service Systems.

E. Drainage Plan

The Project's drainage system would consist of underground storm drain pipes and detention basins installed on the property. The system is designed to collect and treat stormwater runoff and discharge treated flows into the Perris Valley Channel, a regional flood control facility. The drainage system for the Project is depicted on Figure 3-9, *Drainage Plan*. Stormwater flows from Parcels 1-4

would be captured and routed to one of four (4) detention basins. Two (2) detention basins would be located on Parcel 1, one (1) detention basin would be located on Parcel 3, and one (1) detention basin would be located on Parcel 4. In addition to stormwater drainage functions, these basins also would provide water quality functions. The detention basins would be designed to treat and temporarily detain stormwater runoff to ensure that post-development discharge from the site is less than, or equal to, pre-development conditions. Drainage flows would be conveyed from the on-site detention basins to the ultimate discharge points at the Perris Valley Channel via a network of storm drain conduits that would vary in size. Runoff flows originating from on-site public streets would be captured by a system of storm drains installed within Iris Avenue, Heacock Street, Krameria Avenue, and Cosmos Street and would be routed to the Perris Valley Channel via a network of storm drain conduits that would vary in size.

Off-site improvements would be required at the Project's outlets to the Perris Valley Channel to ensure adequate operation of the proposed drainage system. Proposed off-site improvements within the Perris Valley Channel would include the construction of a head wall and flap gate at the Project's two discharge points. In addition, rip-rap would be installed at the Project's outlets to the Perris Valley Channel to preclude scour and erosion.

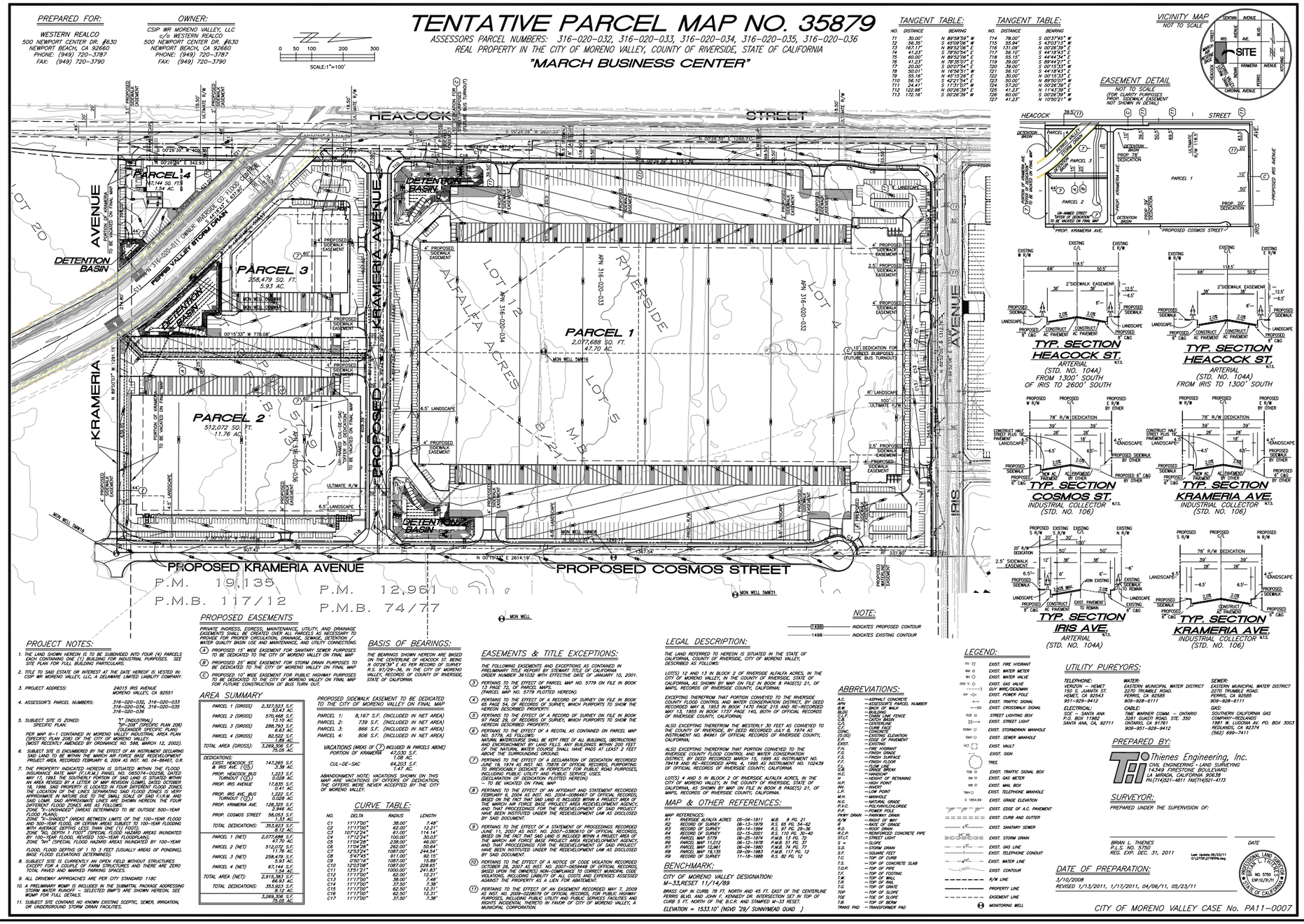
The Riverside County Flood Control and Water Conservation District (RCFCWCD) is responsible for approving all proposed storm drain improvements to ensure property facility sizing and construction, as well as consistency with the applicable local drainage plan. Additional information about the Project's drainage facilities is provided in Subsection 4.8, Hydrology and Water Quality.

F. Earthwork and Grading

As shown on Figure 3-9, *Conceptual Grading Plan*, earthwork and grading would occur over the entire 75.05-acre Project site. No area of the site would be left undisturbed. According to TPM No. 35879, earthwork and grading activities would occur in one phase and would result in approximately 111,030 cubic yards of cut and 159,957 cubic yards of fill. Depths of grading would extend to approximately 3.5 feet, except in the areas of proposed detention basins, which would be excavated to depths of approximately ten feet. Although the earthwork quantities are imbalanced by 48,927 cubic yards, no import of earth materials is anticipated due to the requirement to over-excavate and compact on-site soils (Thienes Engineering, 2011). The Project site is relatively flat and proposed grading would not create manufactured slopes except around the proposed detention basins. As shown on TPM No. 35879, the manufactured slopes that would be created around the on-site detention basins would be up to 10 feet in height with a maximum gradient of 4:1.

3.2.2 PLOT PLANS PA11-0002, -0003, 0004, -0005, AND -0006

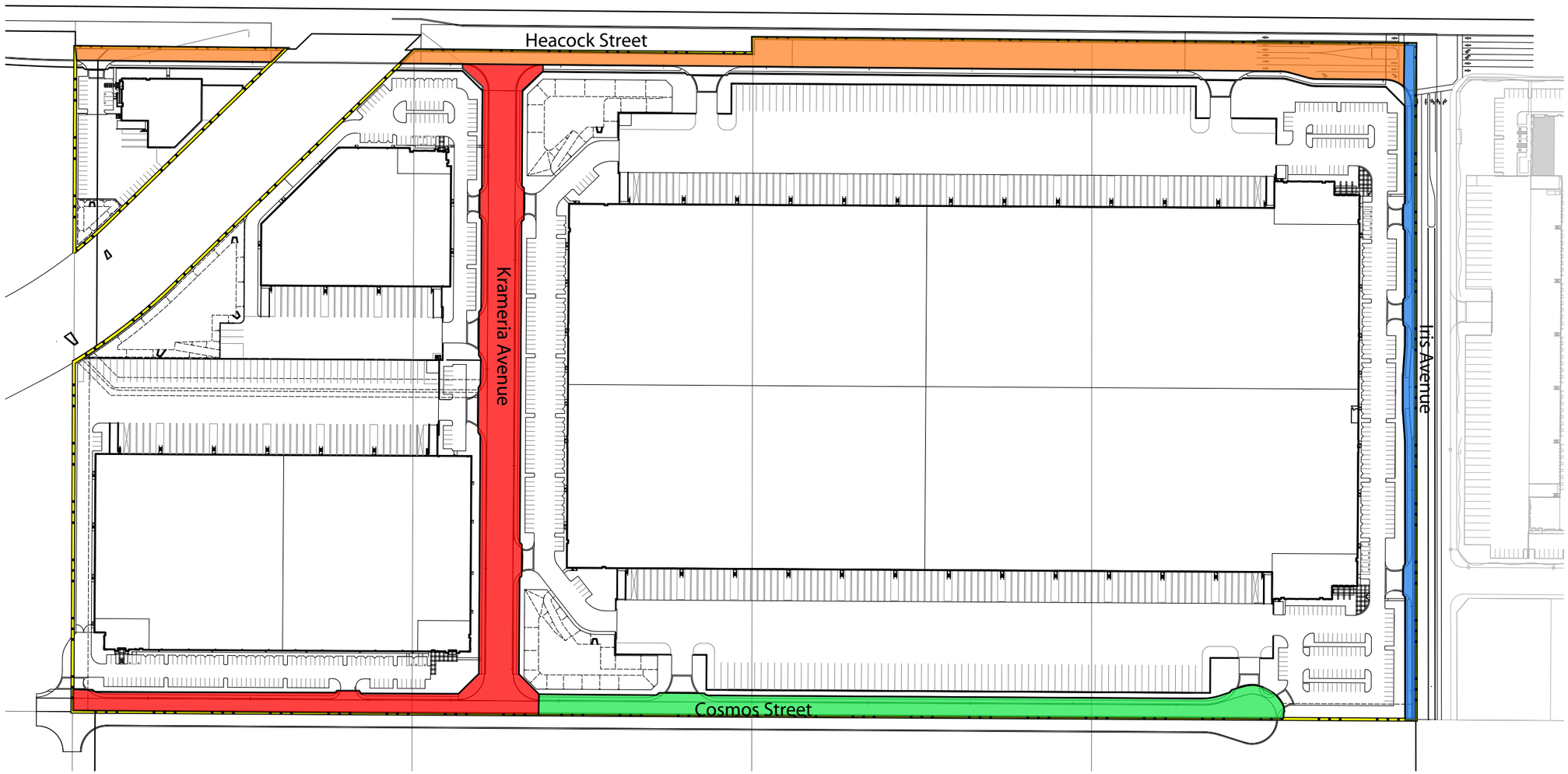
One (1) Master Plot Plan and four (4) individual Building Plot Plans are proposed as part of the Project. The Master Plot Plan (PA11-0002) establishes a common architectural and landscape development concept for the entire Project, depicts the location of proposed circulation facilities, and depicts the relationship between proposed on-site structures, as illustrated on Figure 3-11, *March Business Center Master Plot Plan*. The individual Building Plot Plans provide site plans, including a detailed architectural and landscape design for Parcel 1 (PA11-0003), Parcel 2 (PA11-0004), Parcel 3 (PA11-0005), and Parcel 4 (PA11-0006). Plot plans for Parcels 1 through 4 are presented on Figure 3-12 through Figure 3-15.



Source: Thienes Engineering, Inc. (05-24-11)

0 50 100 200 300 Feet

FIGURE 3-4
Tentative Parcel Map No. 35879

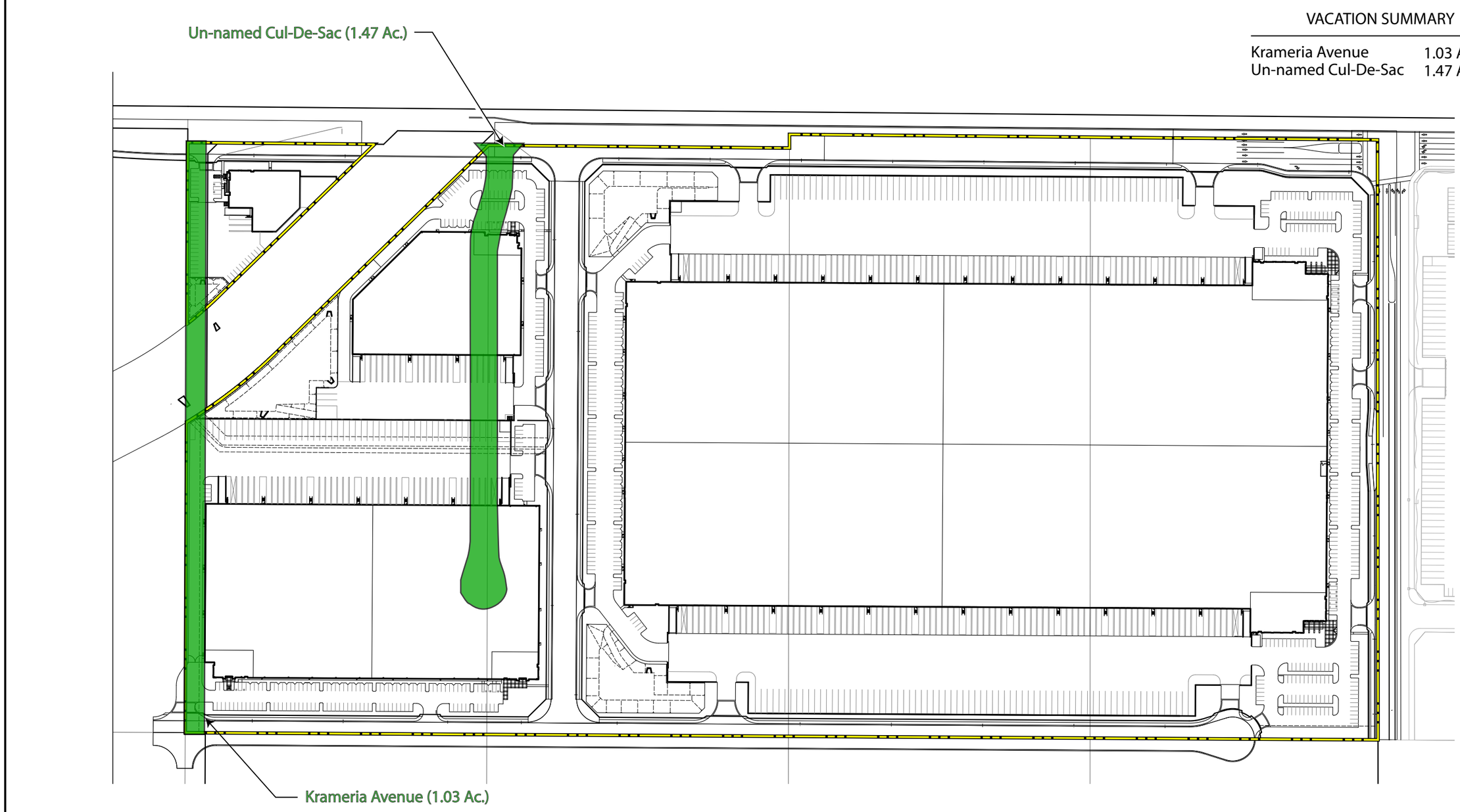


Note: Roadway cross-section improvements will be conditioned as part of approval of TPM 35879

Source: Thienes Engineering, Inc. (05-24-11)

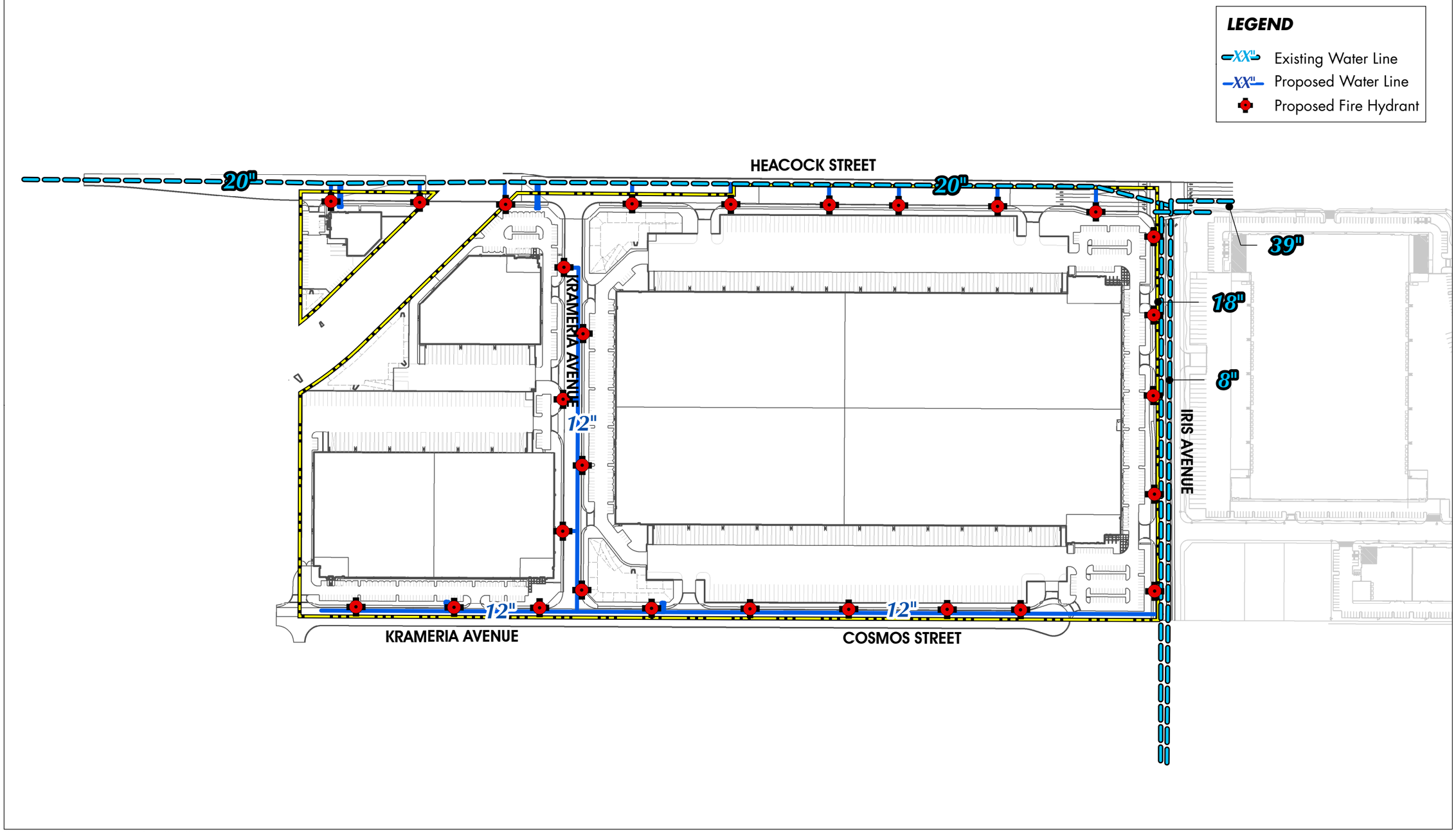
0 50 100 200 300 Feet

FIGURE 3-5
Circulation Plan



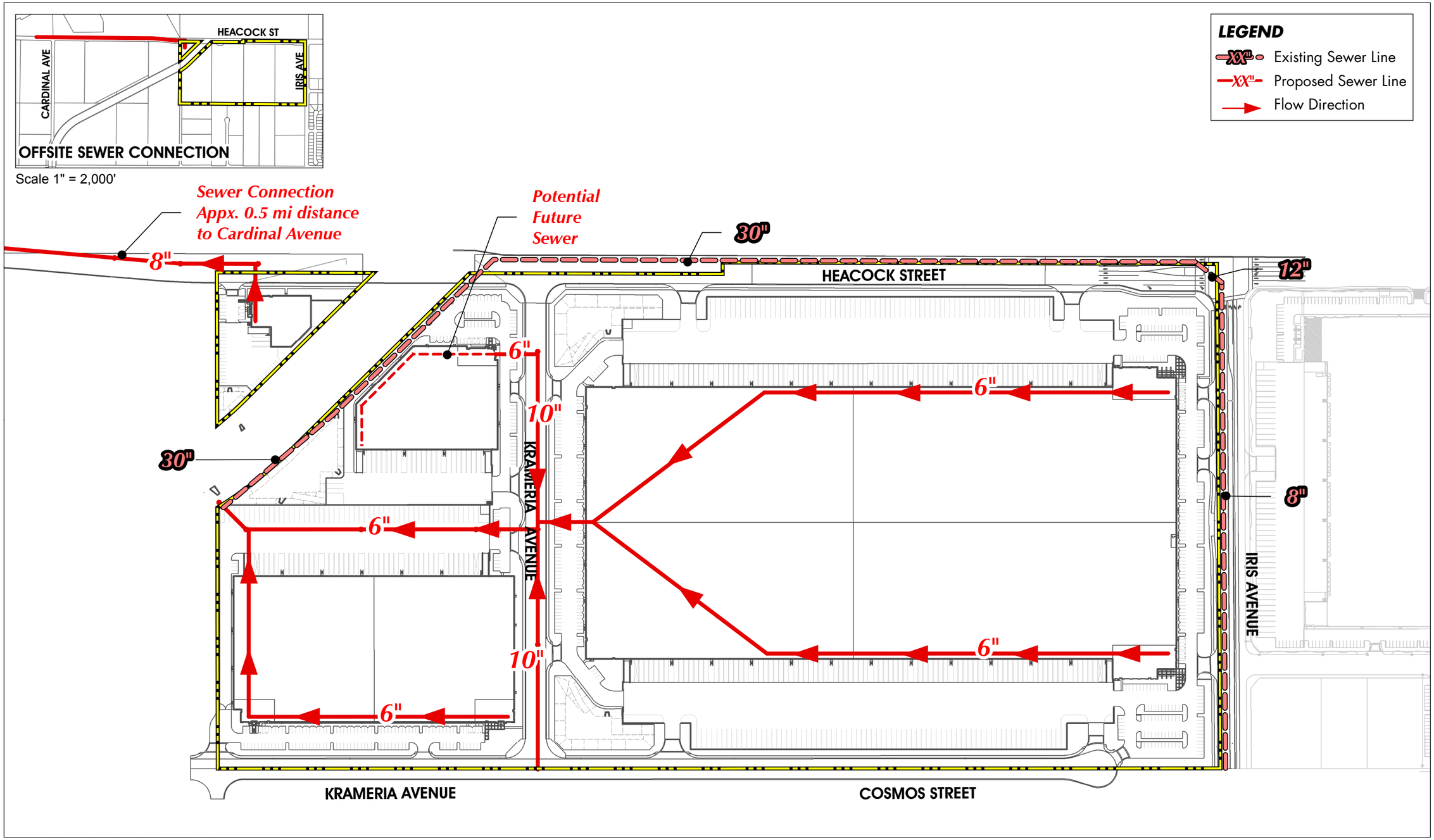
Source: Thienes Engineering, Inc. (05-24-11)

FIGURE 3-6
Street Vacations and Abandonments



Source: Thienes Engineering (05-24-11)

Figure 3-7
Conceptual Water Plan

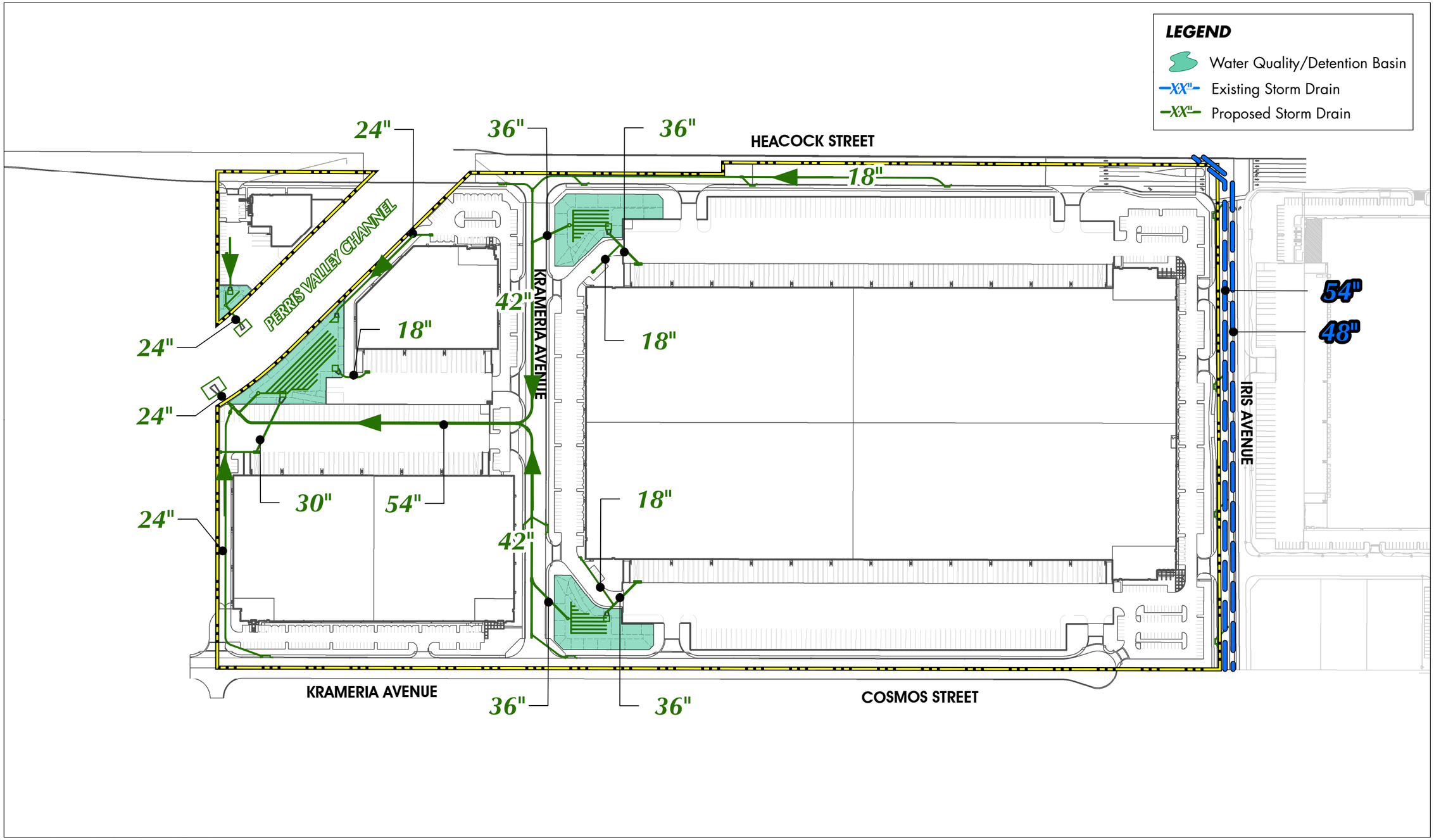


Source: Thienes Engineering (05-24-11)

0 125 250 Feet

Figure 3-8
Conceptual Sewer Plan

-300-



Source: Thienes Engineering (05-24-11)

Figure 3-9
Conceptual Drainage Plan

LEGEND

~~XXXX~~ Elevation Contours (ft.)

Source: Theines Engineering, Inc. (05-24-11)

0 25 50 100 200 feet

FIGURE 3-10
CONCEPTUAL GRADING PLAN

B. General Description

As shown on Figure 3-11, four (4) buildings are proposed to be constructed on the Project site. Table 3-2, *March Business Center Statistical Summary*, summarizes the net parcel size, total building area, and floor area ratio (FAR) of each proposed parcel and building. The buildings are designed to range in size from approximately 16,732 s.f. to 1,103,003 s.f. with a minimum FAR of approximately 0.25 and a maximum FAR of approximately 0.54. The FAR for the total Project site would be approximately 0.51. The Project Applicant anticipates that Parcels 1, 2, and 3 would primarily be occupied by warehouse distribution uses, while Parcel 4 would be occupied by light industrial uses (Western Realco, 2011a). Although the Moreno Valley Industrial Area Plan (MVIAP) designates an "Industrial Support Area" overly on the northwestern portion of the site, which allows the construction of industrial support uses within 300 feet of the Iris Avenue/Heacock Street intersection, the Project Applicant has elected not to include industrial support uses as part of the Project.

Table 3-2 March Business Center Statistical Summary

PARCEL	NET PARCEL SIZE	TOTAL BUILDING AREA	FAR[1]
1	2,077,688 s.f.	1,103,003 s.f.	0.53
2	512,072 s.f.	277,243 s.f.	0.54
3	258,479 s.f.	87,429 s.f.	0.34
4	67,144 s.f.	16,732 s.f.	0.25
Total	**2,915,383 s.f.**	**1,484,407 s.f.**	**0.51**

1: Floor Area Ratio (FAR) is calculated by dividing the maximum building square footage by the net square footage of the parcel on which the building is located. Total FAR is calculated by dividing the total square footage of all buildings by the total net square footage of the parcels on which they would be located.
Source: PA11-0002, PA11-0003, PA11-0004, PA-0005, and PA11-0006 prepared by Bastien and Associates, Inc., August 17, 2011.

C. Parking and Loading

The Master Plot Plan and the individual Building Plot Plans depict the number and location of parking spaces (including trailer parking) and loading bays for each of the proposed structures. As summarized on Table 3-2, *March Business Center Parking Summary*, the proposed Project would include 678 automobile parking spaces (including 21 spaces accessible to persons with disabilities) The proposed Project also would provide truck trailer parking spaces and loading bays that would be used for loading, unloading, and short-term parking (as illustrated on Figure 3-11). The proposed Project also would provide bicycle parking in compliance with the City of Moreno Valley Municipal Code Section 9.11, which requires bicycle parking to be provided for 5% of required vehicle parking. The parking provided on the site would meet or exceed the City of Moreno Valley's vehicular and bicycle parking requirements established by Chapter 9.11 of the City of Moreno Valley Municipal Code. Truck check-in points and driveways would be positioned interior to the business park to create interior stacking distances to minimize the potential for trucks to stack onto public streets when entering the Project site.

D. Architecture

Figure 3-16, *March Business Center Conceptual Elevations*, depicts the conceptual architectural elevations of proposed architecture for the Project. The proposed buildings would be constructed with a maximum height up to 45 feet; however, architectural projections may exceed 45 feet in

Table 3-3 March Business Center Parking Summary

PARCEL	AUTOMOBILE PARKING	ACCESSIBLE PARKING
1	418	10
2	132	5
3	86	4
4	42	2
Total	**678**	**21**

Source: PA11-0002, PA11-0003, PA11-0004, PA-0005, and PA11-0006 prepared by Bastien and Associates, Inc., August 17, 2011.

height. The buildings would be constructed with concrete tilt-up panels and green, low-reflective glass. Articulated building elements including parapets and clear anodized aluminum canopies and mullions would be provided as decorative elements. The color palette for the exterior architecture is proposed to include earth-toned colors, including beige, light brown, medium brown, and burnt red.

As depicted on Figure 3-12 through Figure 3-15, the Project would provide solid concrete screen walls (up to 14 feet in height) to screen truck parking and loading dock areas from public view. The concrete screen walls would be constructed with a finish and color that complements the color palette for proposed structures on site. Fencing also would be provided to delineate property boundaries; 6-foot high wrought iron fencing would be provided in areas visible from public viewing areas while 6-foot tall chain link fencing would be provided in areas not visible from public viewing areas.

The interior of each building is designed to provide a main floor and office space. The larger buildings have the potential to be partitioned for multiple tenant use.

E. Conceptual Landscape Plan

A conceptual landscape plan has been prepared for the Project as part of the Plot Plan applications and is depicted on Figure 3-17 and Figure 3-18, *March Business Center Conceptual Landscape Plan*. The landscape plan indicates that trees, shrubs, and groundcovers are proposed to be planted along street frontages (within the public right-of-way), at building entries and driveways, in and around detention basins, along proposed screen walls and fencing, and along the perimeter of the site. In addition, 6-foot tall landscaped berms would be provided in front of proposed on-site concrete screen walls to reduce the perceived height of the screen walls. Landscaping is estimated to cover approximately 11% of the Project site (approximately 7.4 acres). Proposed landscaping would be ornamental in nature, except within detention basins where plant materials would be selected to serve water quality functions. Prior to the issuance of building permits for the development of individual lots, future development proposals would be required to submit planting and irrigation plans to the City of Moreno Valley for review and approval. The plans would be required to comply with Chapter 9.17 of the City of Moreno Valley Municipal Code, which establishes requirements for landscape design, automatic irrigation system design, and water-use efficiency.

3.2.3 GENERAL PLAN AMENDMENT PA11-0001

A General Plan Amendment (PA11-0001) is proposed as part of the Project to modify the Circulation Element of the City of Moreno Valley General Plan. The proposed modifications to the Circulation Element would consist of changes to the planned alignment and classification of a segment of Krameria Road between Heacock Street and proposed Cosmos Street. Under existing conditions,

Krameria Avenue terminates east of the Project site at Indian Avenue; however, the City's General Plan Circulation Element calls for Krameria Avenue to be extended to Heacock Street diagonally across the southern portion of the Project site, meeting Heacock Street at an oblique angle. The Project proposes a different alignment for Krameria Avenue, as depicted on Figure 3-19, *Proposed Modifications to Krameria Avenue Alignment*. The intended purpose of this change is to provide a 90-degree intersection where Krameria Avenue meets Heacock Street and to provide a perpendicular connection between Heacock Street and proposed Cosmos Street to allow for a more safe and efficient local circulation system. In addition, the proposed General Plan Amendment would downgrade the classification for the Krameria Avenue segment between Indian Avenue and Heacock Street from a "Minor Arterial (88-foot right-of-way)" to an "Industrial Collector (78-foot right-of-way).

3.2.4 SPECIFIC PLAN AMENDMENT P11-004

In addition to the General Plan Amendment described above, the proposed realignment and reclassification of Krameria Avenue through the Project site would require an amendment to the Moreno Valley Industrial Area Plan (Specific Plan 208). The proposed Specific Plan Amendment (P11-004) would change the planned alignment of the on-site segment of Krameria Avenue as described above in Section 3.2.3 and shown on Figure 3-19. The proposed Specific Plan Amendment also would change the classification of the segment of Krameria Avenue between Indian Avenue and Heacock Street from a "Minor Arterial (88-foot right-of-way)" to an "Industrial Collector (78-foot right-of-way)," as would similarly occur under the proposed General Plan Amendment.

3.2.5 PROJECT CONSTRUCTION AND OPERATIONAL CHARACTERISTICS

A. Construction Details

The Project Applicant indicated that the proposed Project would be constructed over two (2) phases (Western Realco, 2011a). Phase 1 would include mass grading of the entire Project site, installation of the master underground utility system (including off-site connections), fine site grading for Parcels 1-4, and construction of the proposed building on Parcel 1 (including utility and service connections). Phase 1 of construction is estimated to take approximately 12 months to complete. Phase 2 of construction would include developing the proposed buildings on Parcels 2-4 and connecting them to the underground utility system. Construction of Phase 2 would commence approximately 12 months following the completion of Phase 1. Phase 2 would take approximately 10 months to construct. Construction equipment is expected to operate on the Project site eight (8) hours per day. The types and numbers of heavy equipment expected to be used during Project construction activities are listed in the air quality technical report attached to this EIR as *Technical Appendix B1*. For purposes of evaluation in this EIR, it is assumed that the building on Parcel 1 would be occupied in the Year 2014/2015 and the buildings on Parcels 2, 3, and 4 would be occupied in the Year 2016 or later.

One (1) groundwater monitoring well is located within the north-central portion of the Project site and three (3) monitoring wells are located near the perimeter of the Project site (near the eastern, southeastern, and southwestern boundaries of the Project site, respectively). These groundwater monitoring wells are used by the Department of the Air Force to monitor groundwater contamination levels resulting from historical contamination at the March Air Reserve Base. Two (2) of the wells would be relocated as part of the Project's construction activities, in accordance with authorizations issued by the Department of the Air Force. The relocation process includes the abandonment of the

existing wells and the construction of new wells. As of the writing of this EIR, it was anticipated that the replacement wells would be drilled in accessible and appropriate locations near the existing wells. The two (2) other existing monitoring wells located near the perimeter of the site would be preserved in place, and would be protected from damage during grading and construction activities.

B. Operational Details

At the time this EIR was prepared, the future tenants of the Project site were unknown. For the purpose of analysis in this document, the future uses on site are assumed to be any of those uses permitted by the Moreno Valley Industrial Area Plan's "Industrial" designation. Furthermore, this EIR assumes the Project would be operational 24 hours per day. The Project Applicant estimates that Parcels 1-3 would be primarily occupied by warehouse distribution land uses and Parcel 4 would be primarily occupied by light industrial land uses (Western Realco, 2011a). The buildings are not designed to accommodate tenants that require warehouse refrigeration. Business operations would be conducted within enclosed buildings, with the exception of traffic movement, parking, and the loading and unloading of trucks at designated loading bays.

Because tenants of the Project's buildings are not yet known, the number of jobs that the Project would generate cannot be precisely determined; therefore, for purposes of analysis within this EIR, employment estimates have been calculated using data and average employment density factors reported by the Southern California Association of Governments in their publication *"Employment Density Study Report,"* (SCAG 2001). Using this data, the proposed Project is expected to create approximately 2,560 new, recurring jobs. (Refer to Subsection 5.3, Growth-Inducing Impacts of the Proposed Project, for more information about the Project's employment estimate calculations.)

According to a Water Supply Assessment prepared for the Project by EMWD (*Technical Appendix L* to this EIR), the business park uses proposed by the Project are estimated to result in a demand for approximately 46,851 gallons of potable water per day (or about 52.5 acre-feet per year). The Project also is estimated to result in an average daily demand of 113,696 gallons per day of wastewater treatment capacity (based on EMWD's wastewater generation factor of 1,700 gallons per day per acre for light industrial land uses).

3.3 STANDARD REQUIREMENTS AND CONDITIONS OF APPROVAL

The proposed General Plan Amendment (PA11-0001), Specific Plan Amendment (P11-004), Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan (PA11-0002), and four (4) Building Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006) and their technical aspects have been reviewed in detail by various City of Moreno Valley departments. These departments are responsible for reviewing land use applications for compliance with City codes and regulations. These departments also were responsible for reviewing this EIR (P11-005) for technical accuracy and compliance with CEQA. The City of Moreno Valley departments responsible for technical review include:

- Planning Division of Community & Economic Development Department
- Building and Safety Division of Community & Economic Development Department
- Land Development Division of Community & Economic Development Department
- Transportation Engineering Division of Public Works Department
- Special Districts Division of Public Works Department
- Fire Prevention Bureau

- Moreno Valley Utility

Review of the development applications (*i.e.*, PA11-0001, PA11-0002, PA11-0003, PA11-0004, PA11-0005, PA11-0006, PA11-0007, and P11-004) by the City Departments listed above will result in the production of a comprehensive set of draft Conditions of Approval that will be available for public review prior to consideration of the proposed Project by the Moreno Valley City Council. These conditions will be considered by the City Council in conjunction with their consideration of PA11-0001, PA11-0002, PA11-0003, PA11-0004, PA11-0005, PA11-0006, PA11-0007, and P11-004. If approved, the Project will be required to comply with all imposed Conditions of Approval.

Conditions of Approval and other applicable regulations, codes, and requirements that the Project is required to comply with and that result in the reduction or avoidance of an environmental impact are specified in each subsection of Chapter 4.0, *Environmental Analysis*. These are referred to as "Project Requirements" throughout this EIR.

3.4 SUMMARY OF REQUESTED ACTIONS

The City of Moreno Valley has primary approval responsibility for the proposed Project. As such, the City is serving as the Lead Agency for this EIR pursuant to CEQA Guidelines §15050. (The role of the Lead Agency was previously described in more detail in Section 1.4 of this EIR.) The City Planning Commission will consider the Project's requested discretionary permit applications and approvals and make advisory recommendations to the Moreno Valley City Council. The City Council will have final authority over approval, approval with changes, or denial of the requested actions that are within the City's jurisdiction. The City will consider the information contained in this EIR and this EIR's Administrative Record in its decision-making processes. Upon approval of the Project and certification of this EIR, the City would conduct administrative reviews and grant ministerial permits and approvals to implement Project requirements and conditions of approval. A list of the primary actions under City jurisdiction is provided in Table 3-4, *Matrix of Project Approvals/Permits*.

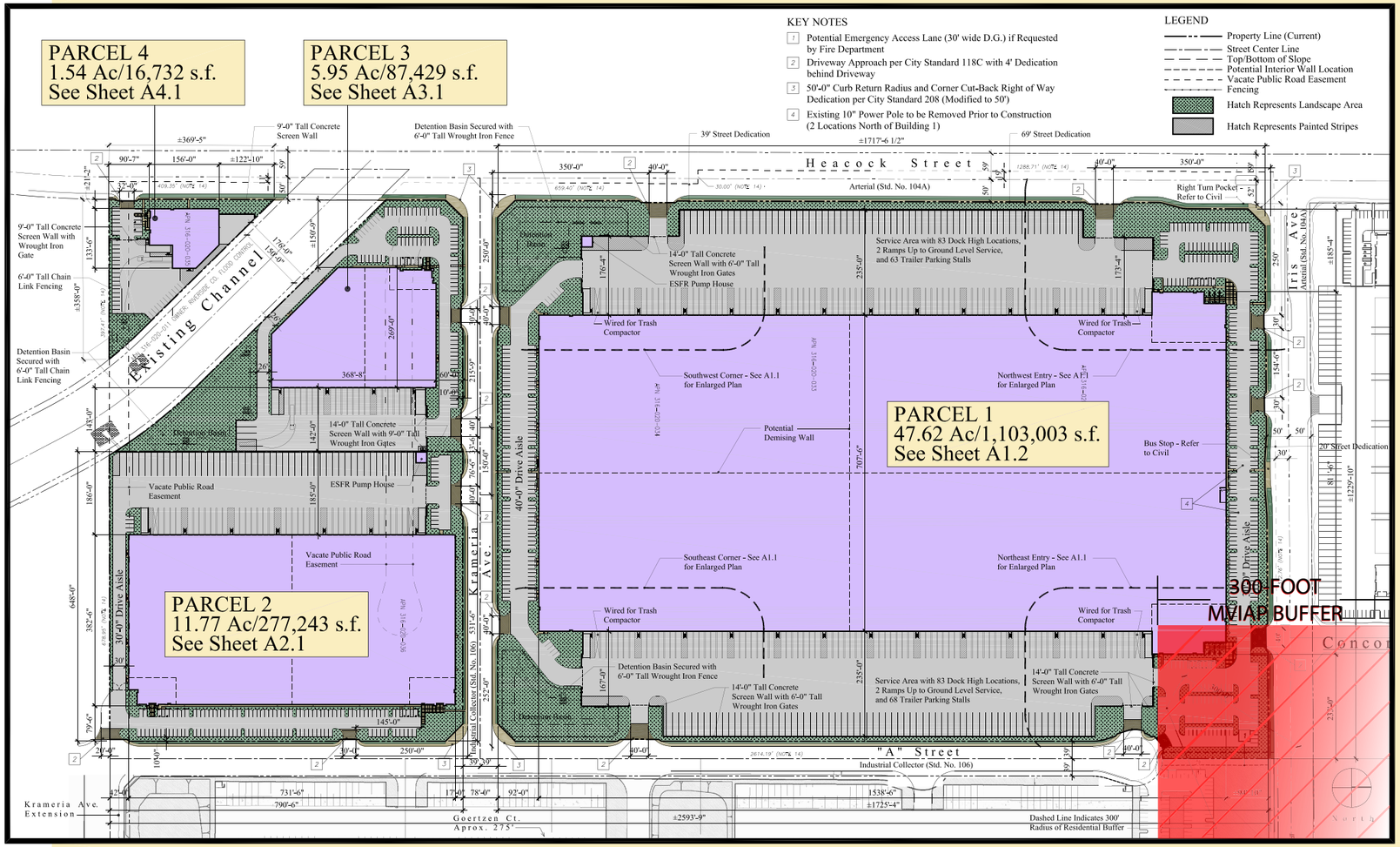
3.5 RELATED ENVIRONMENTAL REVIEW AND CONSULTATION REQUIREMENTS

Subsequent to approval of the General Plan Amendment PA11-0001, Specific Plan Amendment P11-004, Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan PA11-0002, and four (4) Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006) by the City of Moreno Valley, additional discretionary and/or administrative actions would be necessary to implement the proposed Project. Table 3-4, *Matrix of Project Approvals/Permits*, lists the agencies that are expected to use this EIR and provides a summary of the subsequent actions associated with the Project. This EIR covers all federal, state, local government and quasi-government approvals which may be needed to construct or implement the Project, whether or not they are explicitly listed in Table 3-4, or elsewhere in this EIR (CEQA Guidelines Section 15124(d)).

Table 3-4 Matrix of Project Approvals/Permits

PUBLIC AGENCY	APPROVALS AND DECISIONS
City of Moreno Valley	
Proposed Project – City of Moreno Valley Discretionary Approvals	
City of Moreno Valley Planning Commission	• Provide recommendations to the City of Moreno Valley City Council whether to approve the General Plan Amendment PA11-0001, Specific Plan Amendment P11-004, Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan PA11-0002) and Plot Plans PA11-0003, PA11-0004, PA11-0005, and PA11-0006. • Provide recommendations to the City of Moreno Valley City Council regarding certification of this EIR.
City of Moreno Valley City Council	• Approve or deny General Plan Amendment PA11-0001. • Approve, conditionally approve, or deny Specific Plan Amendment P11-004. • Approve, conditionally approve, or deny Tentative Parcel Map No. 35879 (PA11-0007). • Approve, conditionally approve, or deny Master Plot Plan PA11-0002. • Approve, conditionally approve, or deny Plot Plan PA11-0003. • Approve, conditionally approve, or deny Plot Plan PA11-0004. • Approve, conditionally approve, or deny Plot Plan PA11-0005. • Approve, conditionally approve, or deny Plot Plan PA11-0006. • Reject or certify this EIR along with appropriate CEQA Findings (P11-005).
Subsequent City of Moreno Valley Discretionary and Ministerial Approvals	
City of Moreno Valley Subsequent Implementing Approvals	• Approve Final Maps, parcel mergers, lot line adjustments, or parcel consolidations, as may be appropriate. • Approve Conditional or Temporary Use Permits, if required. • Issue Grading Permits. • Issue Building Permits. • Approve Road Improvement Plans. • Issue Encroachment Permits. • Accept public right-of-way dedications. • Approve street vacations.
Other Agencies – Subsequent Approvals and Permits	
Riverside County Flood Control and Water Conservation District	• Approvals for on- and off-site drainage infrastructure.

PUBLIC AGENCY	APPROVALS AND DECISIONS
Eastern Municipal Water District	• Approvals for the construction of on- and off-site water and sewer infrastructure.
Santa Ana Regional Water Quality Control Board	• Issuance of a Construction Activity General Construction Permit. • Issuance of a National Pollution Discharge Elimination System Permit. • Issuance of a Section 401 Permit pursuant to the Clean Water Act.
California Department of Fish and Game	• Issuance of a Section 1602 Streambed Alteration Agreement pursuant to the Fish and Game Code.
U.S. Army Corps of Engineers	• Issuance of a Section 404 Permit pursuant to the Clean Water Act.
U.S. Department of the Air Force	• Approval for relocation of two groundwater monitoring wells.



Sheet List

A0.1 - Conceptual Masterplan
A0.2 - Site Plan Photos / Street Sections

A1.1 - Building 1 Enlarged Site Plans
A1.2 - Building 1 Floor Plan
A1.3 - Building 1 Roof Plan
A1.41-1.44 - Building 1 Elevations

A2.1 - Building 2 Enlarged Site Plan
A2.2 - Building 2 Floor Plan
A2.3 - Building 2 Roof Plan
A2.41-2.42 - Building 2 Elevations

A3.1 - Building 3 Enlarged Site Plan
A3.2 - Building 3 Floor and Roof Plans
A3.3 - Building 3 Elevations

A4.1 - Building 4 Site, Floor, Roof Plans
A4.2 - Building 4 Elevations

Civil 1 of 3 - Conceptual Grading Plan
Civil 2 of 3 - Conceptual Grading Plan
Civil 3 of 3 - Conceptual Utility Plan
Tentative Parcel Map

LS 1 of 7 - Landscape Plan - Bldg 4
LS 2 of 7 - Landscape Plan - Bldg 3
LS 3 of 7 - Landscape Plan - Bldg 2
LS 4 of 7 - Landscape Plan - Bldg 1, Quad 1
LS 5 of 7 - Landscape Plan - Bldg 1, Quad 2
LS 6 of 7 - Landscape Plan - Bldg 1, Quad 3
LS 7 of 7 - Landscape Plan - Bldg 1, Quad 4

A.P.N.

316-020-032
316-020-033
316-020-034
316-020-035
316-020-036

Project Directory

OWNER/DEVELOPER:
WESTERN REALCO, LLC
500 Newport Center Drive, Suite 630
Newport Beach, California 92660
Telephone: 949.720 3787
Contact: Gary Edwards, Vance Mape

ARCHITECT:
BASTIEN AND ASSOCIATES, INC.
15661 Red Hill Avenue, Suite 150
Tustin, California 92780
Telephone: 714.617.8600
Contact: Mike McAndrew

ENTITLEMENT COORDINATOR:
HOGLE-IRELAND
1500 Iowa Avenue, Suite 110
Riverside, CA 92507
Telephone: 951 787 9222
Contact: Pam Steele, Deirdre McCollister

CIVIL:
THIENES ENGINEERING
14349 Firestone Blvd.
La Mirada, CA 90638
Telephone: 714 521 4811
Contact: Brian Thienes

LANDSCAPE:
EMERALD DESIGN
305 N. Harbor Blvd., Suite 218
Fullerton, CA 92832
Telephone: 714 680 0417
Contact: Charles Lamb

Legal Description

The land referred to hereon is situated in the State of California, County of Riverside, City of Moreno Valley, described as follows:

Lot(s) 12 and 13 in block 2 of Riverside Alfalfa Acres, in the City of Moreno Valley, in the County of Riverside, State of California, as shown by map on file in book 8 page(s) 21, of maps, records of Riverside County, California;

Excepting therefrom that portion conveyed to the Riverside County Flood Control and Water Conservation District, by deed recorded may 8, 1953 in book 1470 page 215 and re-recorded may 13, 1955 in book 1737 page 140, both of official records of Riverside County, California;

Also excepting therefrom the westerly 30 feet as conveyed to the County of Riverside, by deed recorded July 8, 1974 as instrument no. 84961 of official records of Riverside County, California;

Also excepting therefrom that portion conveyed to the Riverside County Flood Control and Water Conservation District, by deed recorded march 15, 1995 as instrument no. 79418 and re-recorded April 4, 1995 as instrument no. 102439 of official records of Riverside County, California.

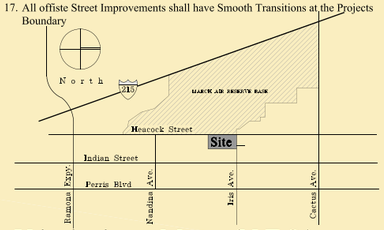
Lot(s) 4 and 5 in block 2 of Riverside Alfalfa Acres, in the City of Moreno Valley, in the County of Riverside, State of California, as shown by map on file in book 8 page(s) 21, of maps, records of Riverside County, California.

MASTERPLAN SUMMARY

PARCEL 1		
Site Area	47.62 Acres	2,074,200 s.f.
Building Area		1,103,003 s.f.
Site Coverage		53.18%
Parking Required (2.5% Office/97.5% Warehouse)		400 Spaces
Parking Provided		418 Spaces
Parking Ratio		.38/1,000
Landscape Area	9.60%	199,214 s.f.
PARCEL 2		
Site Area	11.77 Acres	512,545 s.f.
Building Area		277,243 s.f.
Site Coverage		54.09%
Parking Required (4% Office/95% Warehouse)		131 Spaces
Parking Provided		132 Spaces
Parking Ratio		.48/1,000
Landscape Area	7.12%	36,475 s.f.
PARCEL 3		
Site Area	5.95 Acres	259,110 s.f.
Building Area		87,429 s.f.
Site Coverage		33.74%
Parking Required (10% Office/90% Warehouse)		75 Spaces
Parking Provided		86 Spaces
Parking Ratio		.98/1,000
Landscape Area	23.21%	60,143 s.f.
PARCEL 4		
Site Area	1.54 Acres	67,328 s.f.
Building Area		16,732 s.f.
Site Coverage		24.85%
Parking Required (25% Office/75% Manufacturing)		42 Spaces
Parking Provided		42 Spaces
Parking Ratio		2.51/1,000
Landscape Area	22.11%	14,887 s.f.
MASTERPLAN TOTALS		
Site Area	66.88 Acres	2,913,183 s.f.
Building Area		1,484,407 s.f.
Site Coverage		50.95%
Landscape Area	10.67%	310,719 s.f.

General Notes

1. For Property Line Information, Refer to Conceptual Grading Plan.
2. For Grade Elev's and Contour Lines, Refer to Conceptual Grading Plan.
3. All Lighting to Conform with Municipal Standards.
4. All Signage and Graphics to Conform with Municipal Standards.
5. All Parking Stalls shall be 9' x 18' and Double Striped.
6. All Landscape Fingers shall have Minimum Interior Dim of 5' wide by 16' long, Exclusive of Curbs, Step Outs and Other Hard Surfaces.
7. For all Landscape Fingers and End Planters adjacent to a Park. Stall, a 12" Conc Stepout, in addition to the required Curbs, Shall be Provided.
8. Each Gated Entrance shall be Provided with Presence Loop Detectors (or other device) within 1 or 2 feet of the Gate.
9. Trash enclosures shall be designed per modified City standards to include a fully covered roof over the enclosure and accommodate two trash bins, one for trash and the other for recyclables.
10. All Roofs to be Class-A
11. Series 3200 Knox Boxes to be Installed at all Gate Locations and Entry Doors
12. Utility Purveyors:
    Water: Eastern Municipal Water District, 909-928-6111
    Sewer: Eastern Municipal Water District, 909-928-6111
    Gas: Southern California Gas Company-Redlands, 562-699-7411
    Electrical: SCE-Santa Ana
    Telephone: Verizon-Hemet, 951-929-9412
    Cable: Time Warner Comm.-Ontario, 909/951-929-9412
13. Subject Site is Zoned "I" (Industrial)
    Specific Plan "SP-208" (Oleander Specific Plan)
14. PL Distances provided for Reference Only - Refer to Civil Drawings for Property Line Bearings and Distances and for Horizontal Control
15. FEMA Flood Zone Designations are X-Unshaded, X-Shaded, AO, and AH - Refer to Tentative Parcel Map for Additional Information
16. See Sheet A0.2 for Typical Street Sections
17. All offsite Street Improvements shall have Smooth Transitions at the Projects Boundary

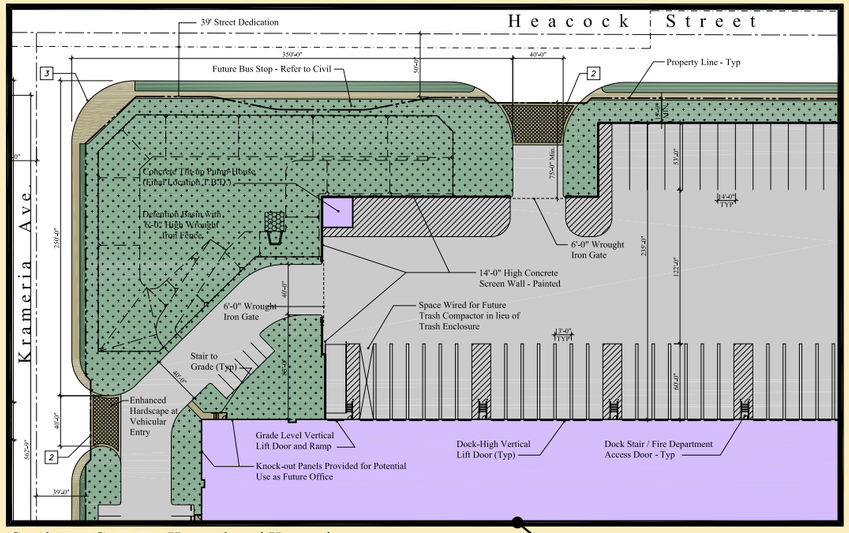


Vicinity Map (N.T.S.)

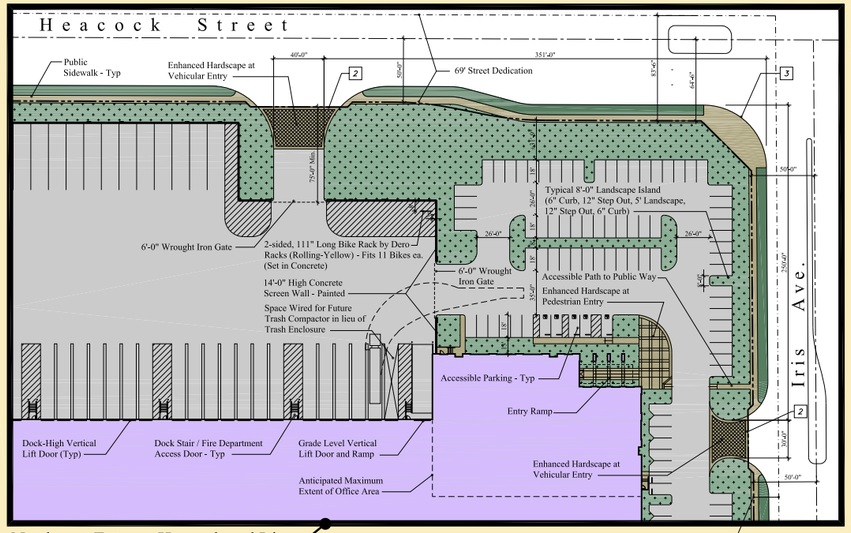
Source: Bastien and Associates, Inc. (08-17-11)

0 100 200 300 400 Feet

FIGURE 3-11
March Business Center Master Plot Plan

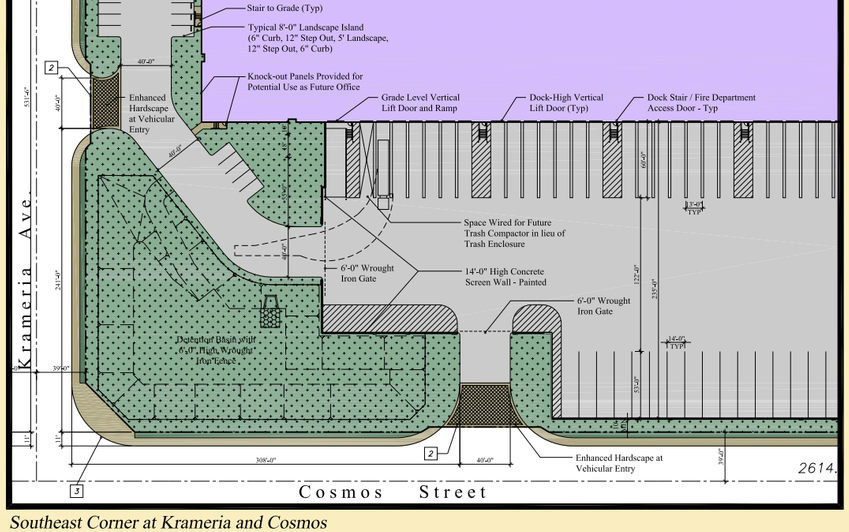


Southwest Corner at Heacock and Krameria

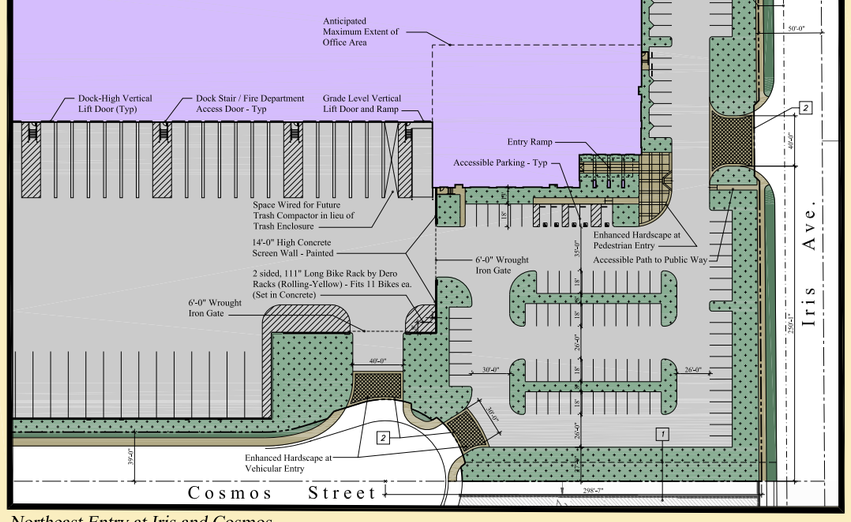


Northwest Entry at Heacock and Iris

NOTE: Building footprint is not contiguous here



Southeast Corner at Krameria and Cosmos



Northeast Entry at Iris and Cosmos

LEGEND

- Property Line (Current)
- Street Center Line
- Top/Bottom of Slope
- Potential Interior Wall Location
- Vacate Public Road Easement
- Fencing
- Hatch Represents Landscape Area
- Hatch Represents Painted Stripes

ENLARGED SITE PLANS - BUILDING 1

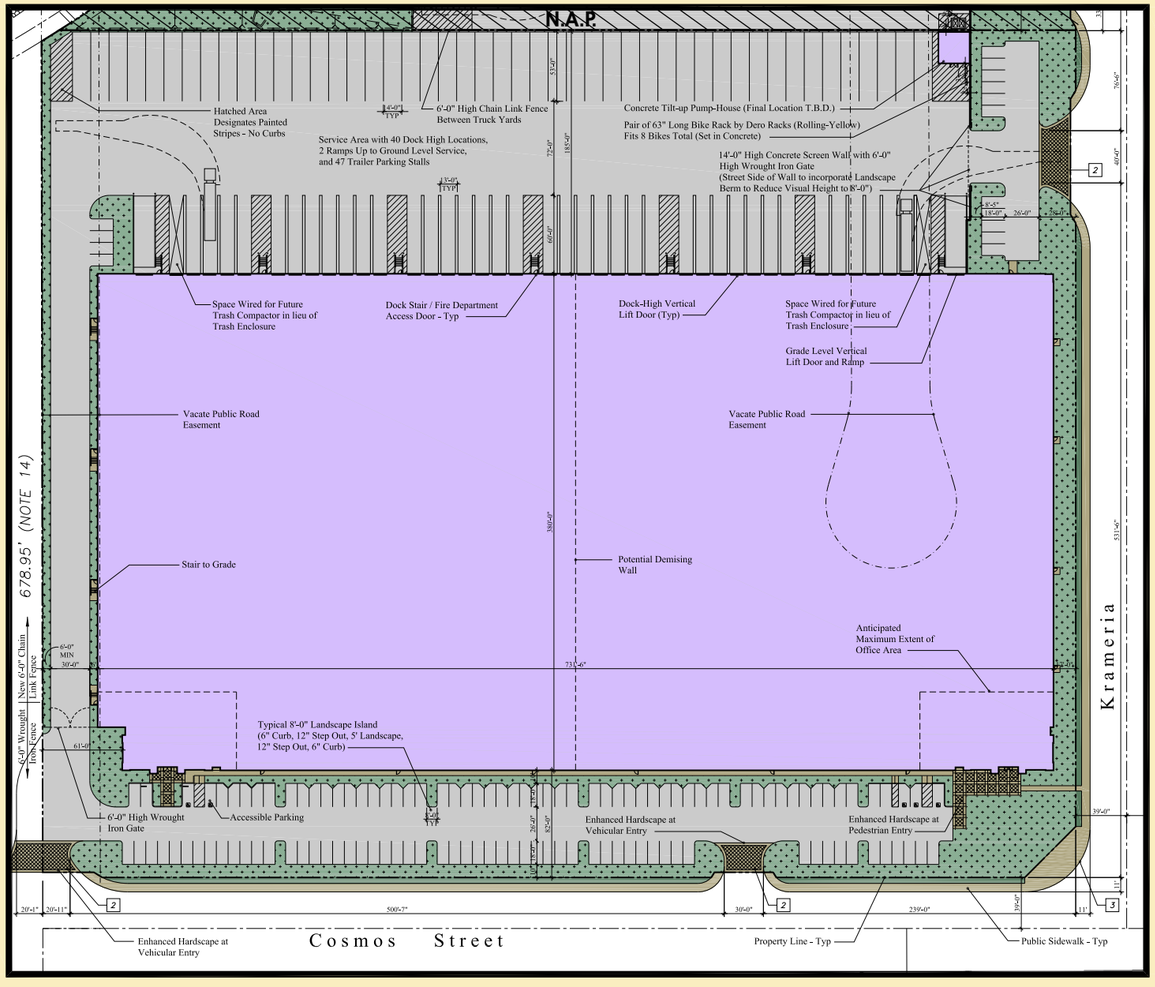
KEY NOTES

1. Potential Emergency Access Lane (30' wide D.G.) if Requested by Fire Department
2. Driveway Approach per City Standard 118C with 4' Dedication behind Driveway
3. 50'-0" Curb Return Radius and Corner Cut-Back Right of Way Dedication per City Standard 208 (Modified to 50')

Source: Bastien and Associates, Inc. (08-17-11)

0 20 40 80 120 160 Feet

FIGURE 3-12
Parcel 1 Plot Plan (PA11-0003)



LEGEND

- Property Line (Current)
- Street Center Line
- Top/Bottom of Slope
- Potential Interior Wall Location
- Vacate Public Road Easement
- Fencing

- Not A Part
- Hatch Represents Landscape Area
- Hatch Represents Painted Stripes

ENLARGED SITE PLAN - BUILDING 2

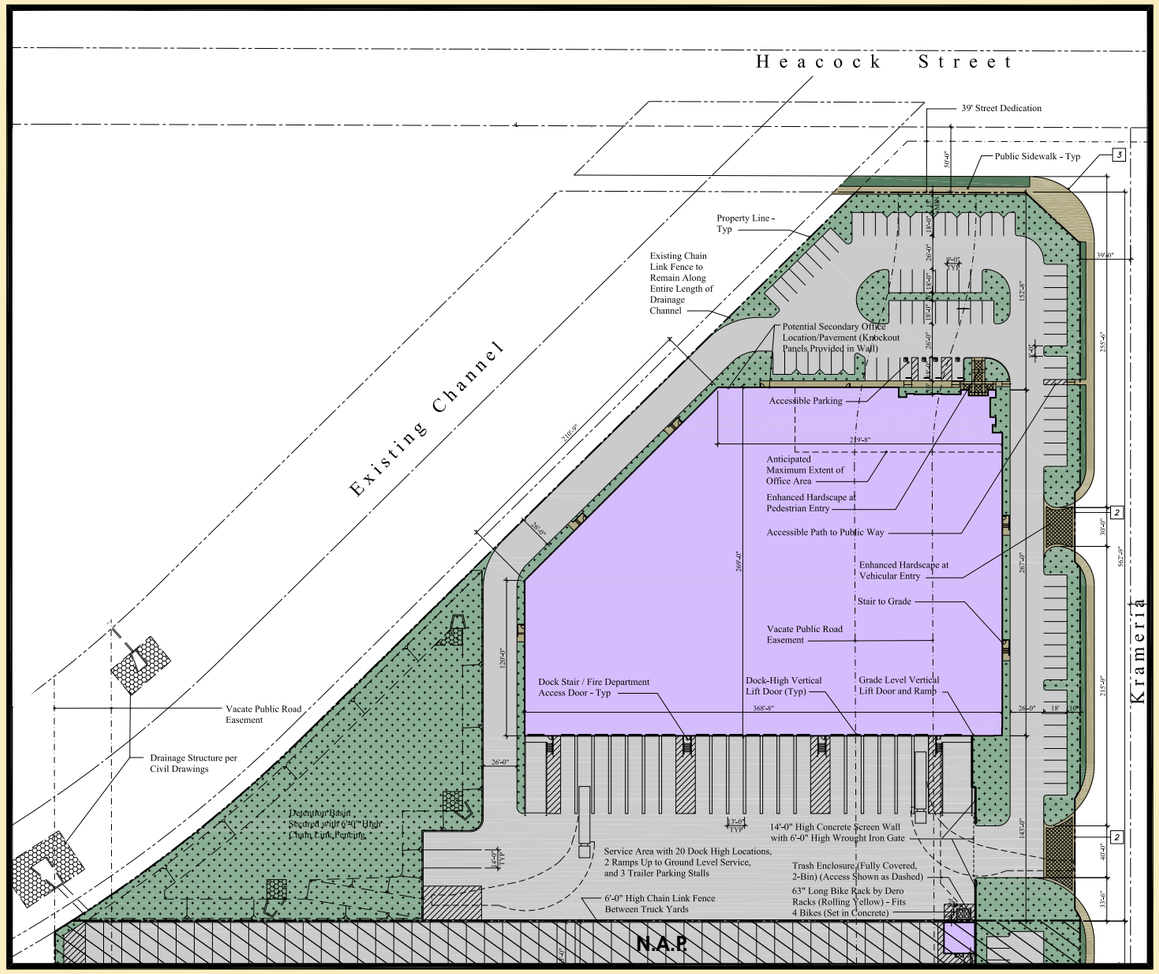
KEY NOTES

1. Not Used
2. Driveway Approach per City Standard 118C with 4' Dedication behind Driveway
3. 50'-0" Curb Return Radius and Corner Cut-Back Right of Way Dedication per City Standard 208 (Modified to 50')

Source: Bastien and Associates, Inc. (08-17-11)

0 20 40 80 120 160 Feet

FIGURE 3-13
Parcel 2 Plot Plan (PA11-0004)



LEGEND

- Property Line (Current)
- Street Center Line
- Top/Bottom of Slope
- Potential Interior Wall Location
- Vacate Public Road Easement
- Fencing

- Not A Part
- Hatch Represents Landscape Area
- Hatch Represents Painted Stripes

ENLARGED SITE PLAN - BUILDING 3

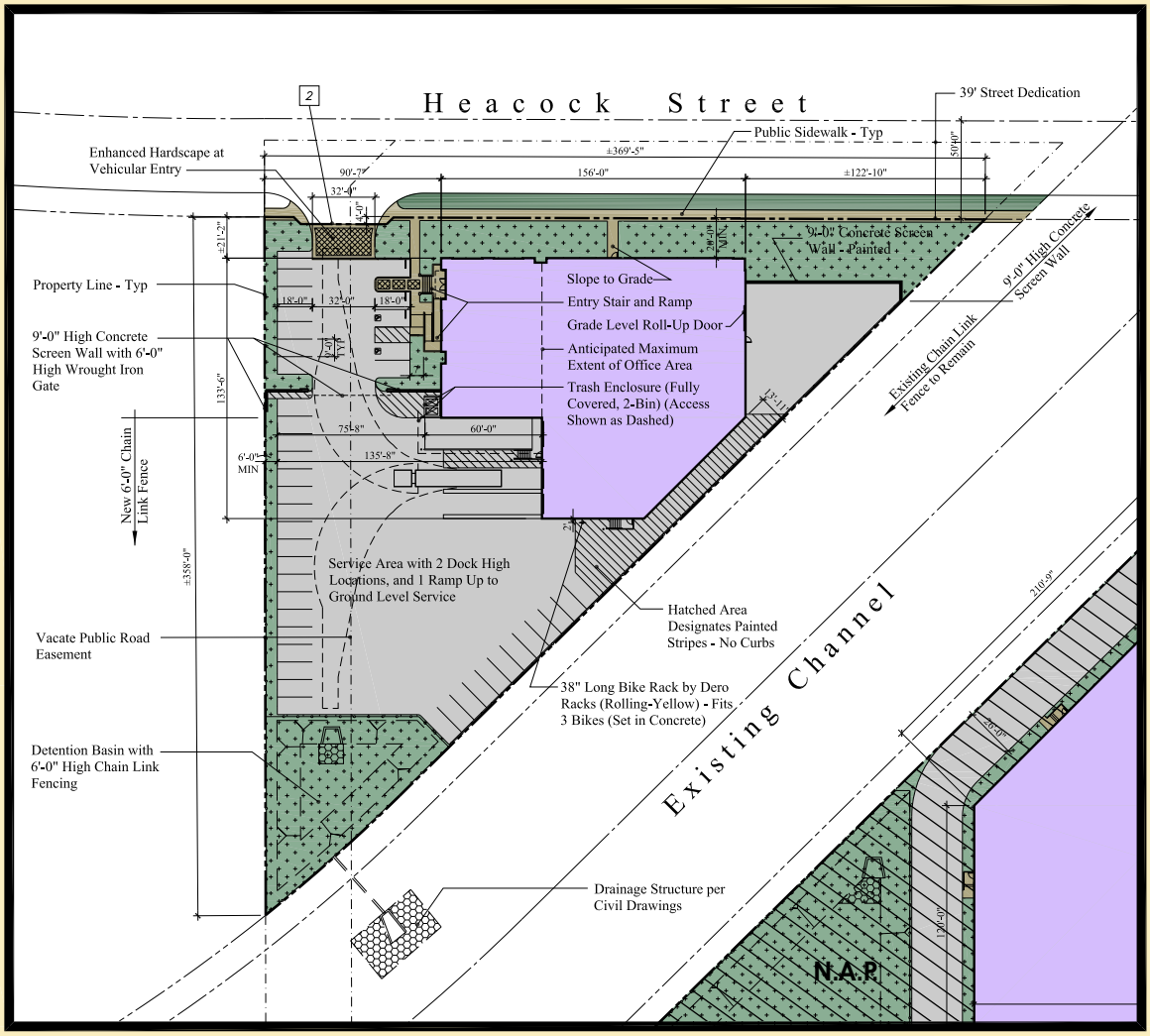
KEY NOTES

1. Not Used
2. Driveway Approach per City Standard 118C with 4' Dedication behind Driveway
3. 50'-0" Curb Return Radius and Corner Cut-Back Right of Way Dedication per City Standard 208 (Modified to 50')

Source: Bastien and Associates, Inc. (08-17-11)

0 20 40 80 120 160 Feet

FIGURE 3-14
Parcel 3 Plot Plan (PA11-0005)



Enlarged Site Plan

ALTERNATE PARKING CALCULATIONS

Parking Required (25% Office/75% Manufacturing)	42 Spaces
Parking Required (100% Manufacturing)	34 Spaces
Parking Required (50% Office/50% Warehouse)	42 Spaces
Parking Provided	42 Spaces

KEY NOTES

1. Not Used
2. Driveway Approach per City Standard 118C with 4' Dedication behind Driveway
3. Not Used

LEGEND

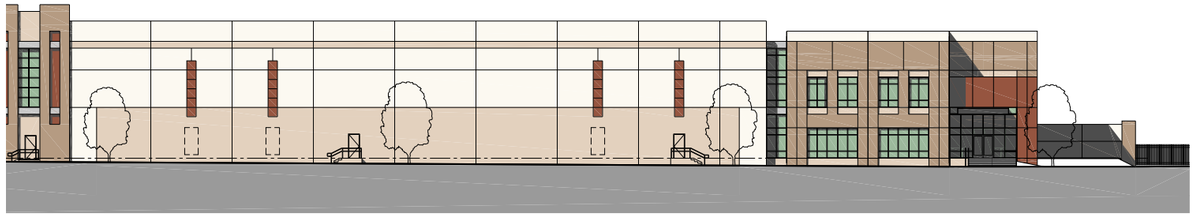
- Property Line (Current)
- Street Center Line
- Top/Bottom of Slope
- Vacate Public Road Easement
- Fencing
- Hatch Represents Landscape Area
- Hatch Represents Painted Stripes
- Not A Part

BUILDING 4

Source: Bastien and Associated, Inc. (08-17-11)

Not to Scale

FIGURE 3-15
Parcel 4 Plot Plan (PA11-0006)



1 - Partial North Elevation (Facing Iris Ave)

Buiding 1 - Partial West Elevation (Facing Heacock Street)

4 - West Elevation (Facing Heacock Street)

Buiding 4 - South Elevation

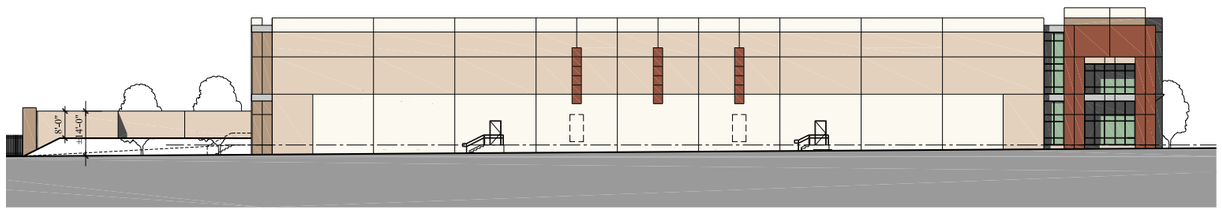
Paint Legend

Paint 1 - Beige (Dunn Edwards, or Equal - DE6127, Finest Silk, LRV 74)

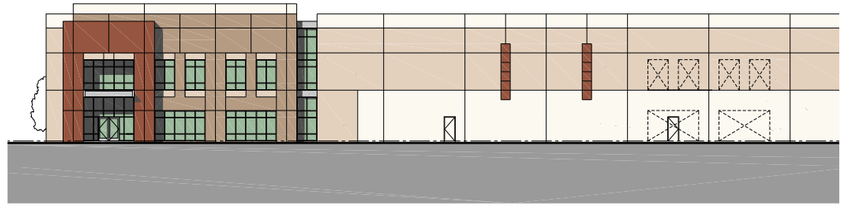
Paint 2 - Light Brown (Dunn Edwards, or Equal - DEC747, Sahara, LRV 52)

Paint 3 - Medium Brown (Dunn Edwards, or Equal - DE6096, Homestead, LI

Paint 4 - Burnt Red (Dunn Edwards, or Equal - DE5188, Ruddy Oak, LRV 1

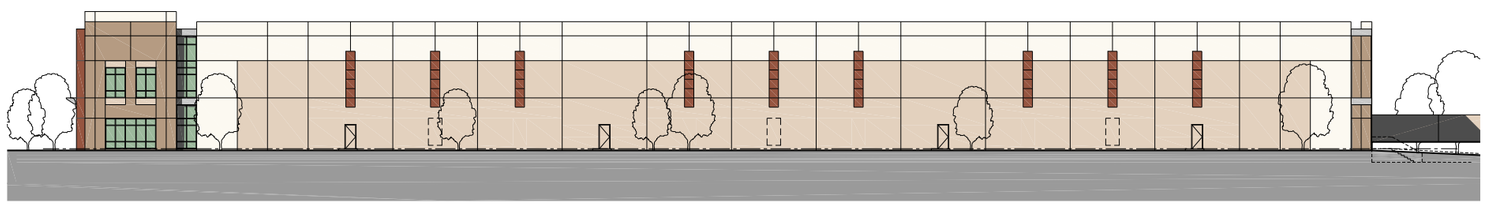


3 - North Elevation (Facing Krameria Ave)



Buiding 3 - Partial West Elevation (Facing Heacock Street)

2 - Partial East Elevation (Facing "A" Street)

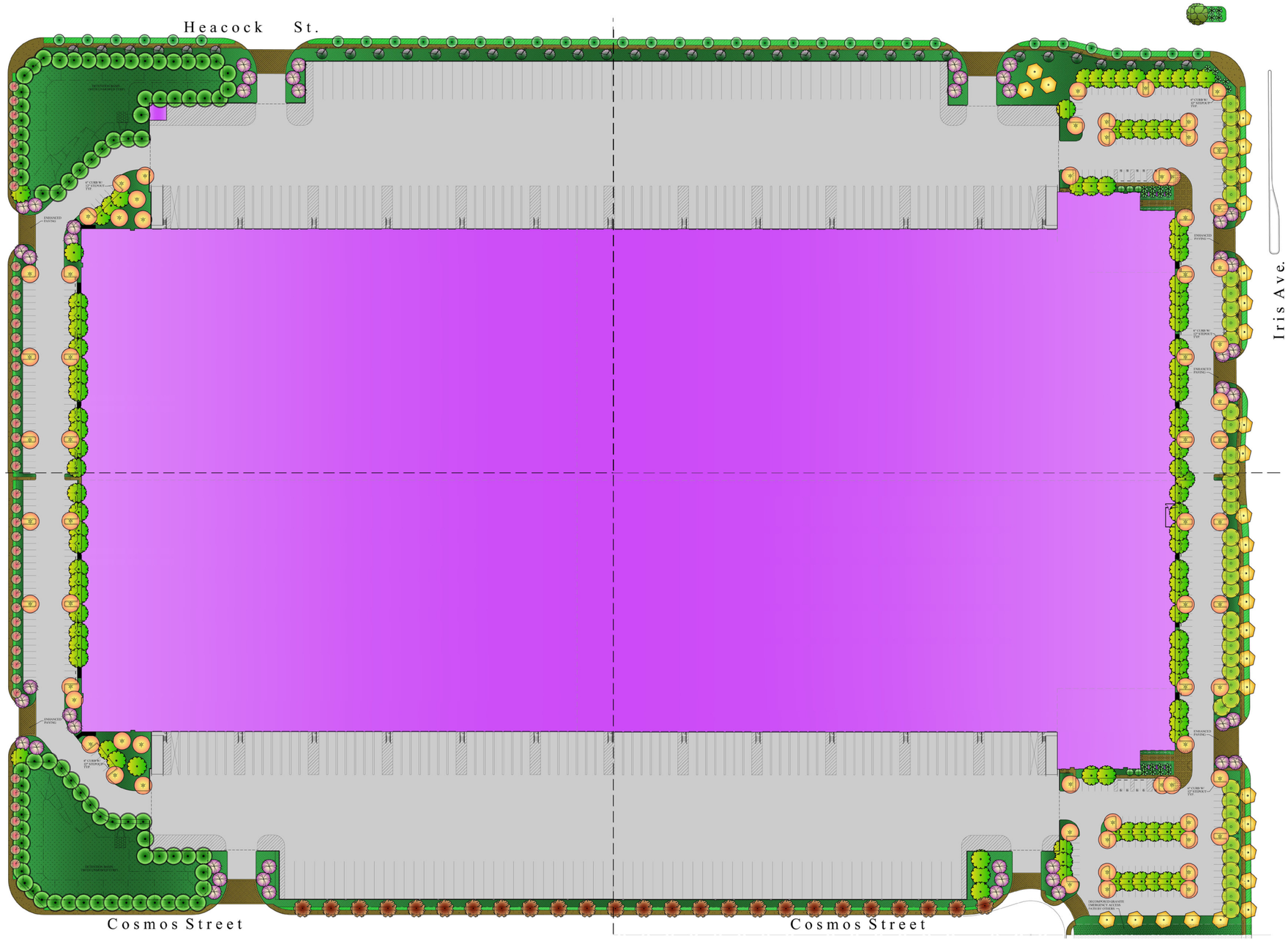


Buiding 2 - North Elevation (Facing Krameria Ave)

Source: Bastien and Associates, Inc. (08-17-11)

0 16 32 48 64 Feet

FIGURE 3-16
March Business Center Conceptual Elevations



Source: Emerald Design (08-17-11)

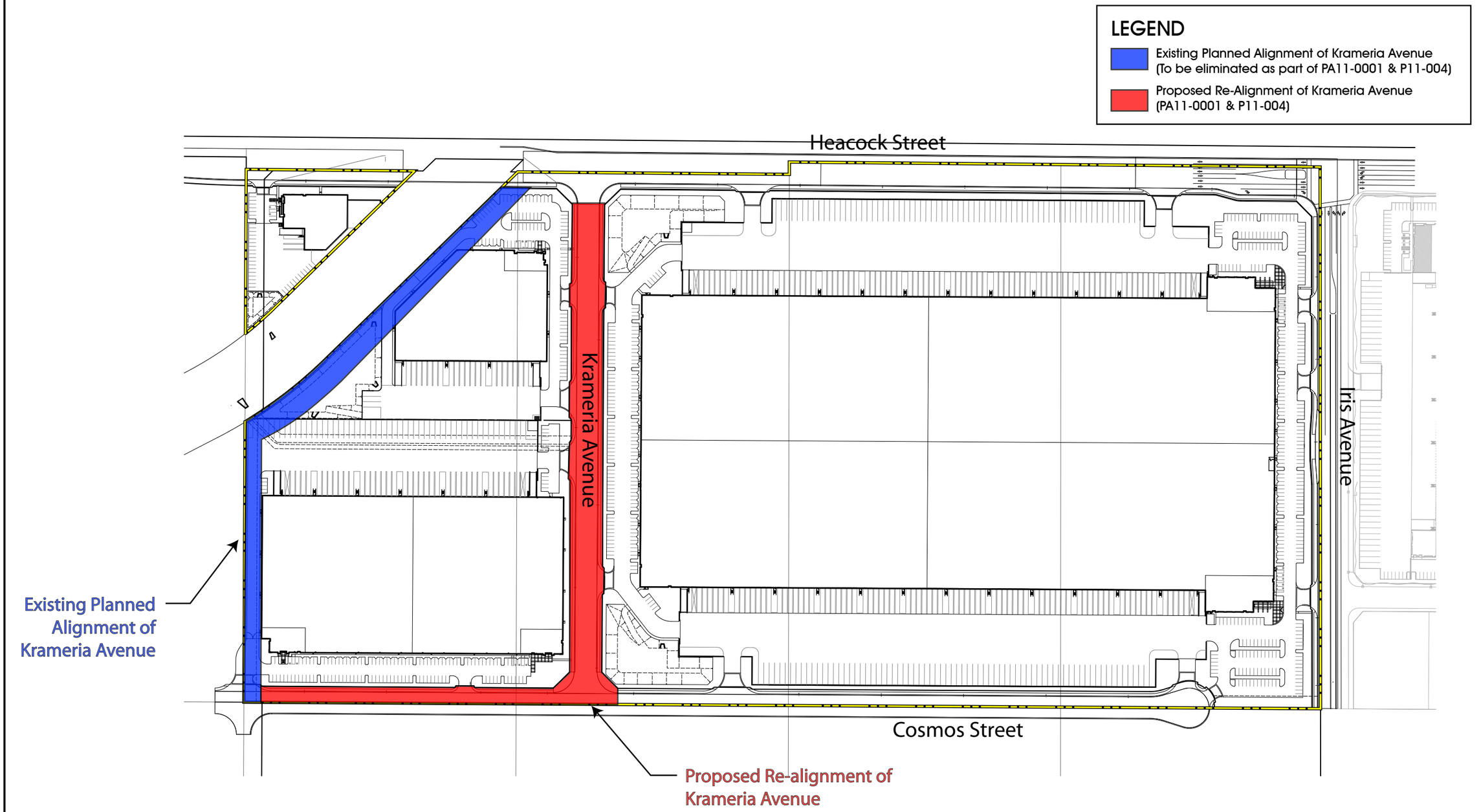
0 50 100 200 300 Feet

FIGURE 3-17
March Business Center Landscape Plan - Parcel 1

Source: Emerald Design (08-17-11)

Not To Scale

FIGURE 3-18
March Business Center Landscape Plan - Parcels 2, 3 & 4



Source: Theines Engineering (05-24-11)

FIGURE 3-19
Proposed Modifications to Krameria Avenue Alignment

4.0 ENVIRONMENTAL ANALYSIS

4.0.1 SUMMARY OF EIR SCOPE

In accordance with CEQA Guidelines §§15126 - 15126.4, this EIR Section 4.0, Environmental Analysis, provides analyses of potential direct, indirect, and cumulative impacts that could occur from planning, constructing, and operating the proposed Project.

In compliance with the procedural requirements of CEQA, an Initial Study was prepared to determine the scope of environmental analysis for this EIR. Public comment on the scope was considered in the form of written comments received by the City of Moreno Valley in response to the NOP issued for this EIR and oral comments provided by members of the public at the EIR scoping meeting held on June 29, 2011, at the Moreno Valley City Hall. Taking all known information and public comments into consideration, 12 primary environmental subject areas are evaluated in this Section 4.0, as listed below and presented alphabetically by subsection. Each subsection evaluates several specific subject matters related to the general topic of the subsection. The title of each subsection is not limiting; therefore, refer to each subsection for a full account of the subject matters addressed therein.

4.1 Aesthetics
4.2. Air Quality
4.3 Biological Resources
4.4 Cultural Resources
4.5 Geology and Soils
4.6 Greenhouse Gas Emissions
4.7 Hazards and Hazardous Materials
4.8 Hydrology and Water Quality
4.9 Land Use and Planning
4.10 Noise
4.11 Transportation/Traffic
4.12 Utilities and Service Systems

Five (5) environmental subjects were determined by the City to have no potential to be significantly impacted by the Project, as concluded by the Project's Initial Study (included in *Technical Appendix A* to this EIR) and after consideration of all comments received by the City on the scope of this EIR and documented in the City's administrative record. These five (5) subjects are discussed briefly in Section 5.0, Other CEQA Considerations, and include: agriculture resources, mineral resources, population/housing, public services, and recreation.

4.0.2 SCOPE OF CUMULATIVE EFFECTS ANALYSIS

CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a proposed project. As noted in CEQA Guidelines §15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "A cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects creating related impacts" (CEQA Guidelines §15130(a)(1)). As defined in CEQA Guidelines §15355:

'Cumulative Impacts' refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

(a) The individual effects may be changes resulting from a single project or a number of separate projects.

(b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

CEQA Guidelines §15130(b) describes two acceptable methods for identifying a study area for purposes of conducting a cumulative impact analysis. These two approaches include: "1) a list of past, present, and probable future projects producing related or cumulative impacts, including if necessary, those projects outside the control of the agency ['the list of projects approach'], or 2) a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact ['the summary of projections approach']."

The summary of projections approach is used in this EIR, except for the evaluation of cumulative traffic impact. The analysis of cumulative traffic impacts uses the list of project approach, as is required to be used by the City of Moreno Valley Transportation Engineering Division's Traffic Impact Analysis Preparation Guide (August 2007).

Using the summary of projections approach, the cumulative study area includes the City of Moreno Valley, the City of Perris, the City of Riverside, and the Harvest Valley/Winchester Area Plan (HVWAP), Lakeview/Nuevo Area Plan (LNAP), and the Mead Valley Area Plan (MVAP), all of which are part of the Riverside County General Plan. These three cities and the three Riverside County Area Plans encompass portions of western Riverside County that have similar environmental characteristics as the Project area. The selected study area encompasses the Perris Valley, which is largely bounded by prominent topographic landforms, such as Reche Canyon to the north, the Badlands to the east, and the Lakeview Mountains to the southeast. This study area exhibits similar characteristics in terms of climate, geology, and hydrology, and therefore is also likely to have similar biological characteristics and cultural resources. This study area also encompasses the service areas of the Project's primary public service and utility providers. Areas outside of this study area either exhibit topographic, climatological, or other environmental circumstances that are different from those of the Project area, or are simply too far from the proposed Project site to be cumulatively considerable.

Environmental impacts associated with the buildout of the Riverside County General Plan were evaluated in a Program-level EIR certified by Riverside County in 2003 (SCH No. 2002051143). The Riverside County General Plan EIR is herein incorporated by reference, and is available for review at the County of Riverside Transportation and Land Management Agency Planning Department, 4080 Lemon Street, 12th Floor, Riverside CA 92502. Likewise, the environmental impacts associated with the buildout of the City of Perris General Plan were evaluated in a Program-level EIR that was certified by the Perris City Council on April 26, 2005 (SCH No. 2004031135). The City of Perris General Plan EIR is also incorporated by reference, and is available for review at

the City of Perris Department of Community Development, 135 North "D" Street, Perris CA 92570. Finally, the environmental impacts associated with the buildout of the City of Riverside General Plan was evaluated in a Program-level EIR that was certified by the Riverside City Council in November 2007 (SCH No. 2004021108). The City of Riverside General Plan EIR is also incorporated by reference, and is available for review at the City of Riverside Community Development Department, Planning Division, 3900 Main Street, Riverside, CA 92522.

A specific cumulative study area was established to assess the cumulative effect of the Project's impacts to traffic and transportation, as required by the City of Moreno Valley Transportation Engineering Division's Traffic Impact Analysis Preparation Guide (August 2007) and in consultation with the City of Moreno Valley Community & Economic Development Department, Planning Division, and Transportation Engineering Division. The cumulative study area for traffic generally includes approved and pending development projects within a three (3)-mile radius of the Project site, as well as several large, traffic-intensive projects falling just beyond a three (3)-mile radius of the Project site. As such, the cumulative impact analysis of traffic impacts in EIR Subsection 4.11 analyzes 51 other past, present, and reasonably foreseeable projects within this study area. This methodology presents a more reasonable approach to cumulative traffic analysis than the General Plan projection approach by recognizing development projects that actually have the potential to contribute traffic to the same intersections, roadway segments, and/or freeway segments as the proposed Project and have the potential to be made fully operational during a similar timeframe as the proposed Project. Specific development projects included in the traffic impact cumulative analysis are listed in Table 4-4 of the Project's Traffic Impact Analysis (refer to *Technical Appendix K*).

4.0.3 IDENTIFICATION OF IMPACTS

Subsections 4.1 through 4.12 of this EIR evaluate the 12 environmental subjects warranting detailed analysis, as determined by this EIR's Initial Study. The format of discussion is standardized as much as possible in each section for ease of review. The environmental setting is discussed first, followed by a discussion of the Project's potential environmental impacts based on specified thresholds of significance used as criteria to determine whether potential environmental effects are significant. The thresholds of significance used in this EIR are based on the thresholds presented in CEQA Guidelines Appendix G and as applied by the City of Moreno Valley to create the Project's Initial Study Checklist (included in *Technical Appendix A* to this EIR). The thresholds are intended to assist the reader of this EIR in understanding how and why this EIR reaches a conclusion that an impact would or would not occur, is significant, or is less than significant. As required by CEQA Guidelines §15126.2(a), impacts are identified as direct, indirect, cumulative, short-term, long-term, on-site, and/or off-site impacts of the proposed Project.

A summarized "impact statement" is provided in each subsection following the analysis. The following terms are used to describe the level of significance as related to the physical conditions within the area affected by the proposed Project:

- No Impact: An adverse change in the physical environment would not occur.

- Less Than Significant Impact: An adverse change in the physical environment would occur but the change would not be substantial or potentially substantial and would not exceed the threshold(s) of significance presented in this EIR.

- Significant Impact: A substantial or potentially substantial adverse change in the physical environment would occur and would exceed the threshold(s) of significance presented in this EIR, requiring the consideration of mitigation measures.

Each subsection also includes a listing of the applicable regulatory criteria (laws, policies, regulations) that the Project is required to comply with (if any). If impacts are identified as significant, the regulatory criteria are followed by a list of feasible mitigation measures that could be applied to either avoid the impact or to reduce the magnitude of the impact. The following terms are used to describe the level of significance following the application of recommended mitigation measures:

- Less Than Significant Impact With Mitigation: A substantial or potentially substantial adverse change in the physical environment would occur that would exceed the threshold(s) of significance presented in this EIR; however, the impact can be avoided or reduced to a less than significant level through the application of feasible mitigation measures.

- Significant and Unavoidable Impact: A substantial or potentially substantial adverse change in the physical environment would occur that would exceed the threshold(s) of significance presented in this EIR. Feasible mitigation measures are either not available or would not be fully effective in avoiding or reducing the impact to below a level of significance.

For any impact identified as significant and unavoidable, the City of Moreno Valley would be required to adopt a statement of overriding considerations pursuant to CEQA Guidelines §15093 in order to approve the Project despite its significant impact(s) to the environment. The statement of overriding considerations would list the specific economic, legal, social, technological, and other benefits of the Project, supported by substantial evidence in the Project's administrative record, that outweigh the unavoidable impacts.

4.1 AESTHETICS

This subsection describes the aesthetic qualities and visual resources present on the Project site and in the site's vicinity. This subsection also analyzes the potential impacts that the Project could have on these resources.

In particular, descriptions of existing visual characteristics, both on site and in the vicinity of the Project site, are provided. Potential aesthetic impacts resulting from implementing the proposed Project are based in part on a site visit and site photographs collected by T&B Planning, Inc. in January 2011 (Horowitz 2011), analysis of aerial photography (Eagle Aerial 2010), Project application materials submitted to the City of Moreno Valley and described in Section 3.0 of this EIR, and information provided in reports appended to this EIR. This subsection also is based in part on information contained in the Conservation Element of the City of Moreno Valley General Plan (Moreno Valley 2006a Ch. 7, 7-12 – 14), and the Aesthetics section of the certified Final Program EIR prepared for the General Plan (SCH No. 2000091075) (Moreno Valley 2006b Sec. 5.11, 5.11-1 – 5.11-6).

4.1.1 EXISTING CONDITIONS

The Project site encompasses 75.05 acres in the City of Moreno Valley. The site is located south of Iris Avenue and east of Heacock Street. The Perris Valley Channel bisects the southern portion of the Project site, with 1.84 acres located south of the Channel and 73.21 acres located north of the Channel. The eastern boundary of the site occurs approximately 1,300 feet west of Indian Street. Topographically, the site ranges in elevation from approximately 1,502 feet above mean sea level (AMSL) in the northwest corner of the site to a low point of approximately 1,488 feet AMSL in the southeast corner of the site, with an overall topographic relief of approximately 14 feet. Thus, the site is perceived as relatively flat or gently sloping to the south under existing conditions. No trees or large rock outcroppings are located on the property.

Pursuant to CEQA Guidelines §15125, the physical environmental condition for purposes of establishing the setting on an EIR is the environment as it existed at the time the EIR's NOP was released for public review. The NOP for this EIR was released on June 13, 2011. As of that date, the Project site consisted of undeveloped land that has been routinely disked, with several dirt pathways located throughout the site (mostly near the Project boundaries). In addition, the Perris Valley Channel bisects the site near the southwestern Project boundary. This segment is designed as a trapezoidal channel with concrete side slopes and bottom near Heacock Street that transitions to a natural channel to the east. The Channel serves as a regional stormwater facility. Evidence of a former horse track that was previously present on the site can be seen from aerial photos of the site; the track no longer exists. Several utility poles also occur along the site's northern boundary (i.e., adjacent to Iris Avenue). Figure 2-4, *Aerial Photograph*, depicts the existing conditions of the Project site.

Due to the lack of development on the site under existing conditions, the Project site does not produce any source of artificial light. Artificial light sources do occur in the Project vicinity, most notably along Heacock Street and Iris Avenue, as well as existing lighting associated with the March ARB to the west and the existing residential uses located northeast of the Project site (Horowitz 2011).

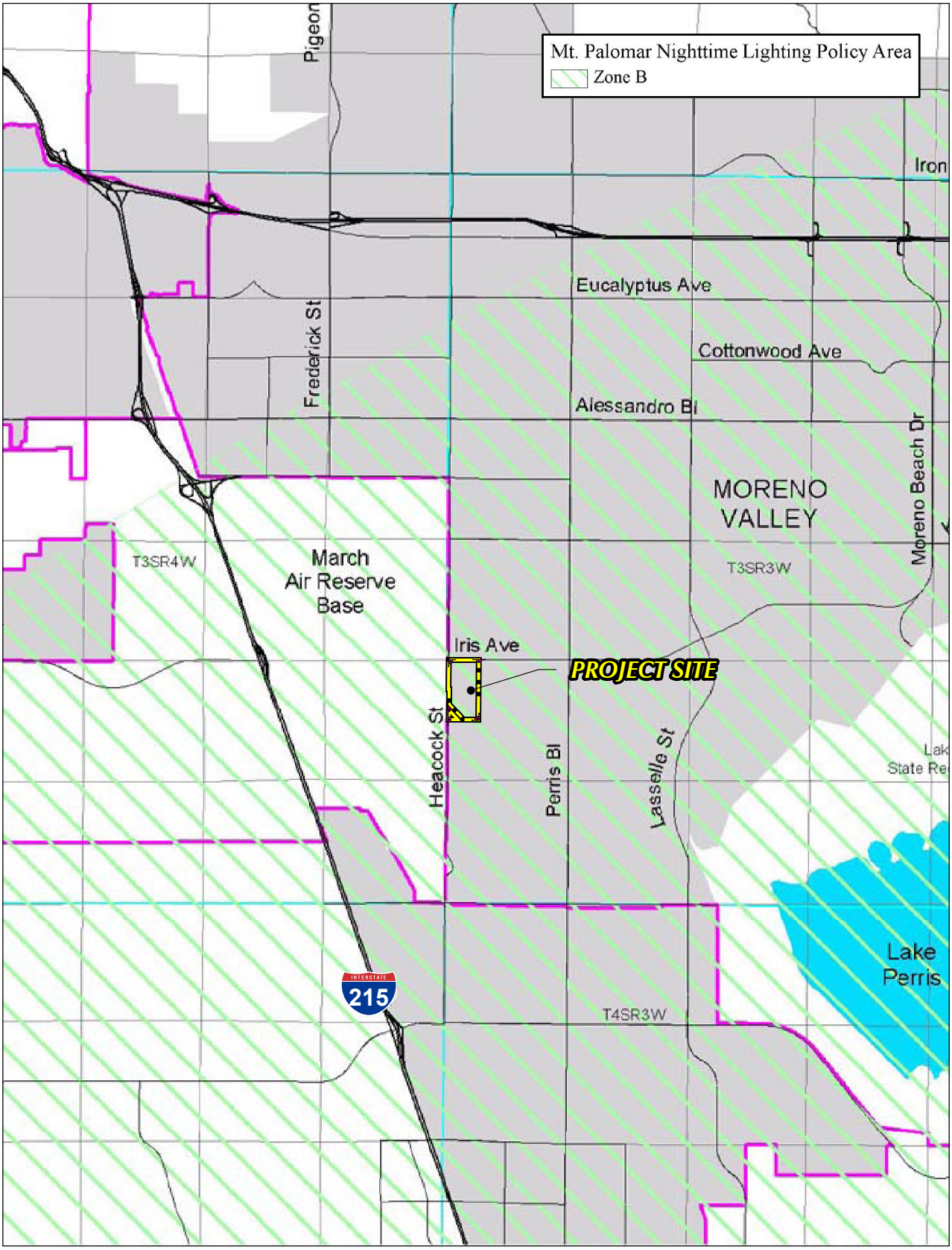
Mt. Palomar Observatory, located in the northern portion of San Diego County, has noted that the continued urbanization of southwestern Riverside County reduces the usefulness of the observatory due to emission of lighting from streetlights, automobiles, residences, and businesses (CalTech n.d.). This type of lighting condition is known as "skyglow." Properties located within a 45-mile radius of the Mount Palomar Observatory are considered to have the potential to contribute to lighting impacts at the observatory. Although the City of Moreno Valley General Plan does not address the Mt. Palomar Observatory, the proposed Project site is identified by the Riverside County General Plan as being located within a 45-mile distance of the facility, which is referred to as "Zone B" of the "Mt. Palomar Nighttime Lighting Policy Area" (Riverside County 2003a, Reche Canyon/Badlands Area Plan 33). Figure 4.1-1, *RCIP Mt. Palomar Nighttime Lighting Policy Area*, shows the proposed Project site in relation to Zone B.

The City of Moreno Valley General Plan includes policies related to development along "Scenic Routes," in addition to policies related to "View Corridors" (Moreno Valley 2006a 9-37 & 9-38). However, as shown on Figure 4.1-2, *Moreno Valley Major Scenic Resources*, the proposed Project site is not located within close proximity to any designated scenic route or view corridor.

To illustrate the existing visual conditions of the Project site in more detail, a photographic inventory has been prepared. Figure 4.1-3, *Site Photos Key Map*, depicts the locations of five (5) vantage point photographs, each of which are described below. These photographs, shown on Figure 4.1-4 and Figure 4.1-5, provide a representative visual inventory of the site's visual characteristics as seen from surrounding public viewing areas.

- Site Photo 1 (Figure 4.1-4): Site Photo 1 was taken from the northeastern Project boundary, looking southwest, south, and southeast along the Project's eastern boundary. Site Photo 1 depicts the Project site in the right half of the photo, while the left half of the photo depicts the property located immediately east of the Project site. As shown from this location, the Project site consists of relatively flat vacant land that has recently been disked, with ground-level vegetation occurring throughout. Along the left- and right-hand sides of this photo, disturbed and un-vegetated land and Iris Avenue are visible. Along the horizon in the left hand portion of the photo (i.e., looking off site), the hills associated with the Badlands are visible, although no prominent topographic features are visible along the horizon above the proposed Project site.

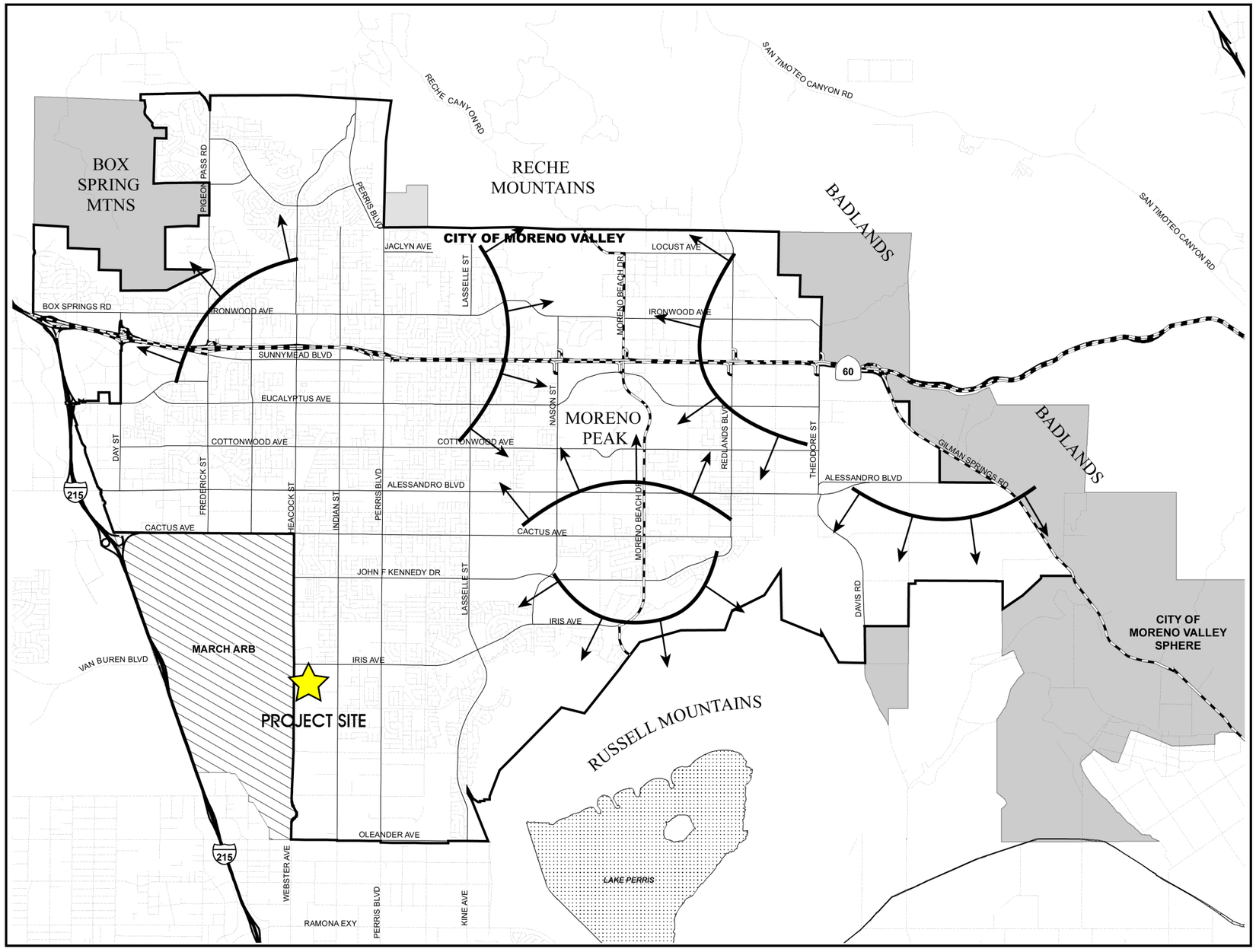
- Site Photo 2 (Figure 4.1-4): Site Photo 2 was taken from the Project's northwestern boundary, at the intersection of Iris Avenue at Heacock Street, and shows views towards the south and east. As with Site Photo 1, views of the Project site from this location depict a relatively flat site that has been recently disked with sparse ground-level vegetation. In the foreground along the left and right hand sides of the photo, disturbed un-vegetated land along the alignments of Iris Avenue and Heacock Street are visible, as are both of these roadways. In the left-hand portion of the photo in the middle ground is an existing utility pole. Along the horizon in the distance in the left portion of the photograph, the hills associated with the Badlands are visible.



Source: RCIP

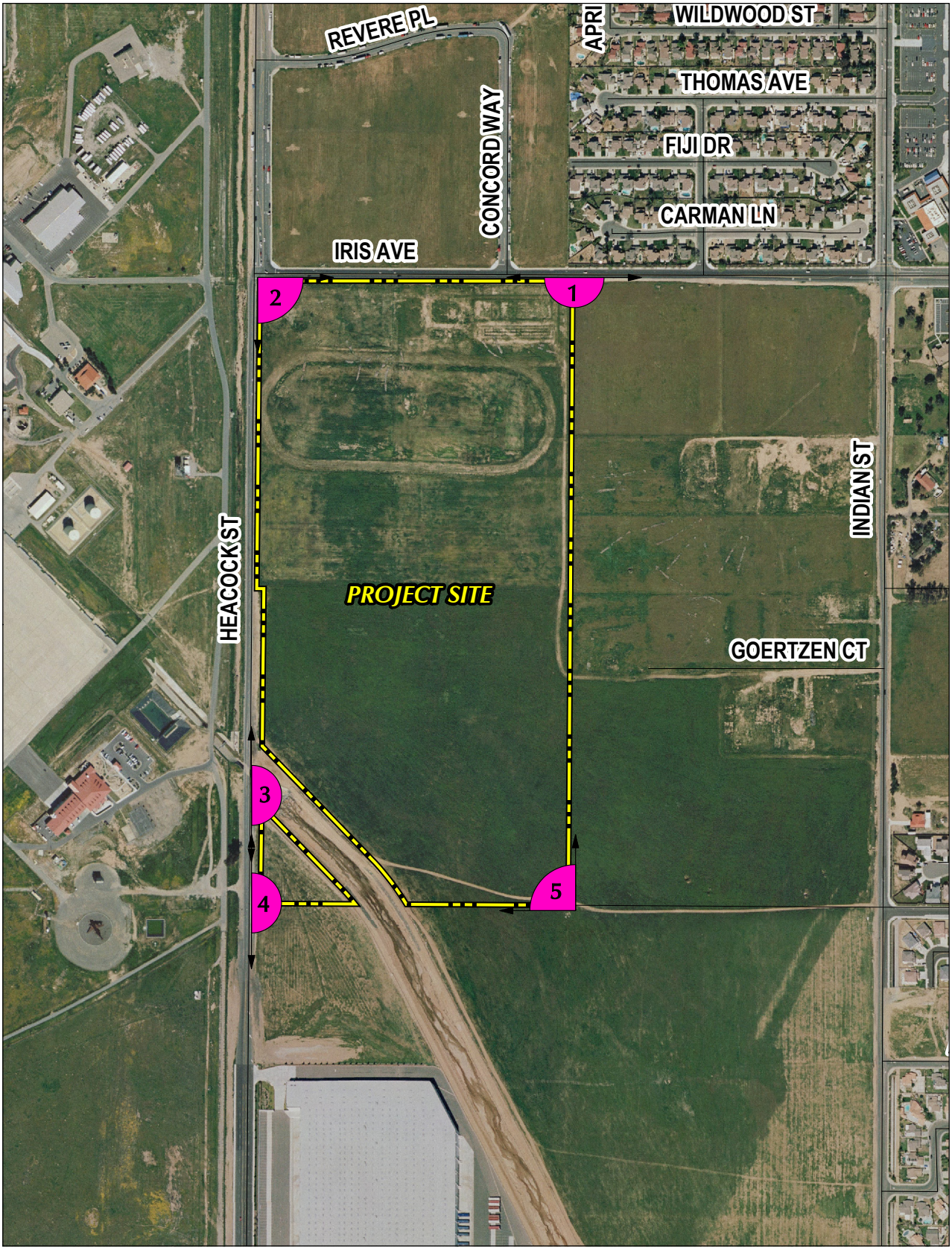
0 1 2 Miles

Figure 4.1-1
RCIP Mt. Palomar Nighttime Policy Area



Source: Moreno Valley General Plan

FIGURE 4.1-2
Moreno Valley Major Scenic Resources



Source: Eagle Aerial (2008), RCTLMA (2011)

0 300 600 Feet

Figure 4.1-3
Site Photos Key Map

VANTAGE POINT 1

VANTAGE POINT 2

VANTAGE POINT 3

Source: T&B Planning, Inc.

FIGURE 4.1-4
Site Photos 1 through 3

VANTAGE POINT 4

VANTAGE POINT 5

Source: T&B Planning, Inc.

FIGURE 4.1-5
Site Photos 4 and 5

- Site Photo 3 (Figure 4.1-4): Site Photo 3 was taken from the Project's western boundary, just south of the Perris Valley Channel along Heacock Street, looking north, east, and south toward the proposed Project site. From this location, the Perris Valley Channel is clearly visible in the foreground. At this location, the Perris Valley Channel is concrete lined, and transitions to a natural channel further east. Heacock Street is visible along the extreme right- and left-hand portions of the photo. In the middle ground, beyond the Perris Valley Channel, an existing dirt trail and undeveloped land with ground-level vegetation are visible. Along the horizon, the hills associated with the Badlands are visible. In the right-hand portion of this photo in the distance is an existing off-site industrial warehouse facility. Distant views of the San Bernardino Mountains and Mount San Gorgonio also are visible along the horizon.

- Site Photo 4 (Figure 4.1-5): Site Photo 4 was taken from the Project's southwestern boundary along Heacock Street, looking north, east, and south. As shown, the Project site again appears as undeveloped land that has recently been disked, with some ground-level vegetation. Along the left- and right-hand portions of this photo, Heacock Street and the un-vegetated road edge are clearly visible. In the distance, the Perris Valley Channel also is visible. Towards the right-hand portion of the photo in the distance is an existing off-site industrial warehouse facility. Along the horizon in the distance are the hills associated with the Badlands. Distant views of the San Bernardino Mountains and Mount San Gorgonio also are visible along the horizon.

- Site Photo 5 (Figure 4.1-5): Site Photo 5 was taken at the southeastern Project boundary looking northwest. The Project site is visible in the foreground of this photo as relatively flat, undeveloped land that was recently disked. In the foreground of the photo, an existing dirt path, likely associated with the Perris Valley Channel, is visible. Some debris is visible in the left-hand portion of the photograph in the foreground along the property boundary and immediately off site. Along the horizon in the left-center portion of the photo, buildings associated with the March ARB are visible. Along the horizon in the right-center portion of the photo, several existing residential developments can be seen, beyond which are hillsides associated with the Badlands and the Box Spring Mountains. Several existing off-site groves of trees also can be seen in the distance along the horizon in the extreme right-hand portion of the photo.

4.1.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to aesthetics if the Project or any Project-related component would:

1. *Have a substantial adverse effect on a scenic vista;*

2. *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;*

3. *Substantially degrade the existing visual character or quality of the site and its surroundings; or*

4. *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.*

4.1.3 IMPACT ANALYSIS

Threshold 1: Would the Project have a substantial adverse effect on a scenic vista?

As shown on Figure 2-5, Figure 4.1-4, and Figure 4.1-5, the Project site is a flat, vacant parcel of land and does not contribute to a scenic vista under existing conditions. Although distant views of the San Bernardino Badlands, and Box Spring Mountains and Mount San Gorgonio are available along the horizon from portions of the Project site and surrounding area, construction and operation of the Project as proposed, with the development of four buildings measuring up to 45.3 feet in height from the finished development pad would not substantially or adversely affect scenic views of these topographic features from off-site public viewing locations. Therefore, implementation of the proposed Project would result in a less than significant impact on scenic vistas.

Threshold 2: Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

As depicted on Figure 4.1-2, the proposed Project site is not located within close proximity to any designated Scenic Routes, including scenic highways. The nearest Scenic Route to the Project site occurs along Sunnymead Boulevard, which is located approximately 3.5 miles north of the Project site. As shown on Figure 4.1-4 and Figure 4.1-5, under existing conditions the property does not contain any scenic resources, such as trees, rock outcroppings, or historic buildings. Accordingly, implementation of the proposed Project would not substantially damage any scenic resources within a state scenic highway corridor, and a significant impact would not occur.

Threshold 3: Would the Project substantially degrade the existing visual character or quality of the site and its surroundings?

- *Construction-Related Activities*

As described in Subsection 3.3.6(A) of this EIR, the proposed Project would be constructed in two (2) phases. Phase 1 would include site preparation, all mass grading and utility installation, and construction of the proposed building on Parcel 1. Phase 2 would include construction of the proposed buildings on Parcels 2, 3, and 4. Phase 1 is estimated to last approximately 12 months and Phase 2 is estimated to last approximately 10 months. Heavy equipment would be used, which would be visible to the immediately surrounding areas during the temporary construction period. Except for the use of cranes during building construction and lifts during painting of the buildings' exterior walls, the construction equipment is expected to be low in height and not substantially visible to the surrounding area. All Project-related construction activities would occur during daytime hours as required by the City of Moreno Valley Municipal Code Chapter 11.80 and would be temporary in nature. All construction equipment would be removed from the Project site following completion of the Project's construction activities.

The temporary visibility of construction equipment and activities would not substantially degrade the visual character of the surrounding area. To the immediate south, west, and north of the Project site is March ARB (west), a vacant parcel and large industrial warehouse facility (south), and a vacant parcel approved for development of the future Moreno Valley Industrial Park (north). These parcels are industrial in nature or are vacant and planned for industrial development. The temporary

visibility of construction activities and equipment would not be substantially degrading to their industrial character.

To the east of the Project site is a vacant parcel approved for the development of Indian Business Park (PA07-0079, PA07-0080, PA07-212, PA07-0093, and PA08-0018), beyond which is a neighborhood of single-family residences, east of Indian Street. To the northeast of the Project site, north of Iris Avenue, is another neighborhood of single family detached homes. As can be seen on the aerial photograph presented as Figure 2-4, the front yards of surrounding residential uses are oriented away from the proposed Project site. Residences northeast of Iris Avenue are separated from Iris Avenue and the Project site by a solid block wall and a landscaped parkway planted with mature trees. Residences east of Indian Avenue are separated from the Project site by a solid block wall and a vacant parcel approved as the Indian Business Park. Moreover, under existing conditions, views from these existing residential neighborhoods to the west/southwest already are located in a visual environment that is partially characterized by industrial/warehouse facilities and March ARB. Temporary construction activities associated with the proposed Project, therefore, would not substantially degrade the aesthetic character or quality of the surrounding area, resulting in a less than significant aesthetic impact.

- *Project Buildout*

At buildout of the proposed Project, views of the site from the surrounding area would change from that of a predominately vacant and undeveloped site to a developed site containing business park/light industrial land uses. As part of the Project and as more fully described in EIR Section 3.0, the Project would result in the construction of four (4) buildings on the property ranging in size from 16,732 s.f. to 1,103,003 s.f. All of the proposed buildings would consist of conventional concrete tilt-up construction. Example building elevations are depicted on EIR Figure 3-16, *March Business Center Conceptual Elevations*. In addition to building construction, the site also would contain surface parking areas and drive aisles, loading docks, screen walls (measuring up to 14.0 feet in height), landscaped berms, roadway improvements, traffic controls, utility infrastructure, landscaping, water quality/detention basins, and other site improvements.

In order to determine if the proposed Project would substantially degrade the existing visual character or quality of the site and its surroundings, an analysis of the representative site photo locations was conducted. The visual character of the Project site would be altered, as described below, for the location of Site Photos 1 through 5 as representative conditions. Refer also to the conceptual building elevations (EIR Figure 3-16), the individual Plot Plans (Figures 3-12 through 3-15), and the Conceptual Landscape Plan (Figure 3-17 and 3-18) for a description of the Project's site design, architecture, and landscape plans.

- Site Photo 1 (see Figure 4.1-4): Site Photo 1 depicts views from the northeastern corner of the Project site looking east, south, and west, and affords direct views of the site's eastern and northern boundaries. As shown on EIR Figure 3-12, this portion of the Project site is proposed for development with Building 1, which is the largest of the four buildings proposed as part of the Project. With buildout of the proposed Project, foreground views from this location would include an employee/visitor parking area and landscaping, beyond which Building 1 would clearly be visible. As shown on Figure 3-16, Building 1 would consist of a tilt-up concrete building with enhanced architectural treatments occurring at the corners on the north half of the building. The enhanced architectural treatments at the

corners of the building would include off-set planes, variable heights, and the use of glazing to enhance the appearance of the building. To the right of the employee/visitor parking area and Building 1 would be a drive aisle. Both the employee/visitor parking area and drive aisle would include landscaping (trees, shrubs, and groundcover). To the left of the employee/ visitor parking area would be a series of docking bays that would be screened from public view by 14-foot tall screen walls, which in turn would be partially obscured from public viewing areas by landscaped berms measuring six feet in height. Along the perimeter of the Project site (right-hand and center of Photo 1), streetscape improvements associated with Iris Avenue and Cosmos Street would be visible, which would include a parkway that accommodates a sidewalk and landscaping (groundcover/shrubs).

- Site Photo 2 (see Figure 4.1-4): Site Photo 2 depicts views from the northwestern corner of the Project site looking south and east, and affords direct views of the site's western and northern boundaries. With buildout of the proposed Project, views from this location would be similar to those described above for Site Photo 1. The northwest corner of Building 1 would be clearly visible from this location, with the center of the view dominated by the architecturally-enhanced corner of the building (refer to Figure 3-16). In the foreground, an employee/visitor parking area would be visible, which would be enhanced with landscaping (groundcover, shrubs, and trees). To the left of Building 1 and the employee/parking area would be a drive aisle with parking that also would be landscaped. To the right of Building 1 and the employee/visitor parking area would be a loading dock area, which would be screened from view by 14-foot tall screen walls. Between the screen walls and Heacock Street would be a six-foot tall landscaped berm, which would help reduce the visual prominence of the screen wall. Along the left- and right-hand portions of the view, Heacock Street and Iris Avenue would be visible, including the construction of additional travel lanes and streetscape improvements along the Project's perimeter. Entries from Iris Avenue and Heacock Street also would be visible from this location, which would feature landscaping (ornamental trees) and enhanced paving.

- Site Photo 3 (see Figure 4.1-4): Site Photo 3 depicts views from the western Project boundary, just south of the Perris Valley Channel, looking north, east, and south along the western site boundary. With buildout of the proposed Project, this location would afford close-up views of Building 3 and Building 4 (refer to Figure 3-11), while portions of site improvements to Parcels 1 and 2 would be visible in the distance. From this location looking northeast (i.e., left-center portion of Site Photo 3), the western and southwestern faces of Building 3 would be clearly visible beyond the Perris Valley Channel and the existing chain link fencing at the perimeter of the channel. Distant views of the San Bernardino Mountains and Mount San Gorgonio would be obstructed or partially obstructed from this location due to close proximity to development associated with Buildings 3 and 4. The northwestern portion of the building would feature architectural treatments (Figure 3-16), including off-set planes, variable heights of architectural details, use of glazing, and variable colors. The southwestern portion of the building façade would appear as a typical tilt-up concrete structure with little architectural variation. To the left of Building 3, an employee/visitor parking area would be visible, along with the trees, shrubs, and groundcover proposed along the perimeter of the parking area and within the center median. Looking east from this location, distant views would be obstructed by a proposed 9-foot tall screen wall that would be constructed to screen views of the loading bays associated with Building 4. In front of the screen wall, enhanced landscaping would be provided, including magnolia and jacaranda

trees in front of the screen wall, in addition to shrubs and groundcover. Looking south and southwest from this location, and to the right of the 9-foot screen wall, Building 4 would be clearly visible. As shown on Figure 3-16, the western face of Building 4 would include an architecturally-enhanced façade, including the use of glazing, off-set planes, and variation in color. The area between Building 4 and Heacock Street would be improved with decorative landscaping, including trees, shrubs, and groundcover, in addition to streetscape improvements along Heacock Street.

- Site Photo 4 (see Figure 4.1-5): Site Photo 4 depicts views from the southwestern corner of the proposed Project site looking south, east, and north along the western and southern property lines of the site. Views from this location looking northeast would be dominated by development on Parcel 4. Looking east, a small employee/visitor parking area would be visible in the foreground, beyond which a 9-foot screen wall could be seen. Along the southern property line, a 6-foot tall chain link fence also would be visible, although this chain link fence would be partially screened by the planting of trees along the southern property line. Beyond the employee/visitor parking area and looking northeast, the southern and western facades of Building 4 would be clearly visible. As shown on Figure 3-16, the southwestern corner of Building 4 would feature enhanced architectural treatments, including off-setting planes, a canopy, variable colors, and the use of glazing. At the far left of this view, streetscape improvements associated with Heacock Street would be visible, including street trees, shrubs, groundcovers, and a curb-separated sidewalk. Distant views of the San Bernardino Mountains and Mount San Gorgonio would be obstructed or partially obstructed from this location due to close proximity to development proposed on Parcel 4.

- Site Photo 5 (see Figure 4.1-5): Site Photo 5 depicts views from the southeastern corner of the proposed Project site looking west, northwest, and north along the eastern and southern property lines of the site. With buildout of the proposed Project, views from this location would be dominated by Building 2. In the near-ground, a driveway access into Parcel 2 would be visible, which would feature enhanced paving and landscaping (i.e., decorative trees and groundcover). In the left-hand portion of the view, a 6-foot wrought iron gate would be visible to the left of Building 2, with a 6-foot wrought iron fence that transitions to a 6-foot chain link fence along the southern property line. In the center of this view, the southwestern corner Building 2 would be clearly visible, which would include enhanced architectural treatments including off-setting planes, use of glazing, and variable colors. To the right of Building 2 would be a drive aisle with employee/visitor parking. This parking area would be landscaped with a variety of trees, shrubs, and groundcover. In the right-hand portion of the view, streetscape improvements along realigned Krameria Avenue would be visible, including a curb-adjacent sidewalk and street trees with shrubs and groundcover.

As indicated in the above descriptions, buildout of the proposed Project would change the existing visual character of the Project site from undeveloped land to that of a business park/light industrial development consisting of four buildings and associated improvements. Although the aesthetic changes would be substantial compared to existing conditions, the Project incorporates a number of features intended to soften the visual prominence of the Project. In addition to enhanced architectural treatments and use of landscaping, the Project also incorporates 9- to 14-foot tall screening walls to screen loading and docking bays from public view. The visual prominence of these screening walls would be reduced through the incorporation of 6-foot tall berms in front of the 14-foot walls, and the installation of landscaping (trees, shrubs, and groundcover) in front of the

walls. These visual features of the proposed development would help ensure a high-quality visual character for the site, consistent with the aesthetic character called for by the City of Moreno Valley's Moreno Valley Industrial Area Plan (MVIAP) (City of Moreno Valley 2002). Therefore, based on the foregoing analysis, implementation of the proposed Project would not result in any significant adverse impacts to the visual character or quality of the Project site.

With respect to the visual character and quality of the surrounding area, the proposed Project would be visually compatible with the existing industrial warehousing use to the south of the Project site, and would be similar in character to proposed business park/light industrial uses proposed in the undeveloped portions of the MVIAP (i.e., to the north, east and southeast). The proposed Project also would not conflict with the existing visual character of the adjacent March ARB, which features buildings and structures associated with industrial and/or airport operations.

Land uses to the northeast of the Project site (i.e., northeast of the intersection of Concord Way and Iris Avenue) and to the east of the Project site (i.e., east of Indian Street) consist of existing residential uses, which exhibit the greatest potential to be impacted by the visual quality/character of the proposed Project. The location of Site Photo 1 depicts a representative viewpoint for these existing residential neighborhoods. As described above, views from the location of Site Photo 1 would include the landscaped employee/visitor parking area at the northeast corner of the Project, the northeast corner of Building 1, and the 14-foot screen wall with a 6-foot berm in front of the screen wall where it is planned to abut the public right-of-way. This portion of the Project site would be treated with decorative landscaping, including the use of trees, shrubs, and groundcover, which would serve to soften the visual prominence of the screen wall, parking area, and Building 1. Based on these design features, the Project would be constructed to the aesthetic quality called for by the MVIAP and would not degrade the visual character of its surroundings. Additionally, note that the residences located east of Indian Street would not have a direct view of the Project after construction of the Indian Business Park (PA07-0079, PA07-0080, PA07-212, PA07-0093, and PA08-0018), which is approved by the City of Moreno Valley to occur directly east of the Project site, between the proposed Project and the residences east of Indian Street.

As noted previously, implementation of the proposed Project would represent a substantial change to the existing visual character of the site. However, and as can be seen on the aerial photograph presented as Figure 2-4, the front yards of all of the existing residential uses are oriented away from the proposed Project site, or would not have direct views of the Project site due to intervening development or solid screen walls. Moreover, under existing conditions, views from these existing residential neighborhoods to the west/southwest already are located in a visual environment that is partially characterized by industrial/warehouse facilities and by buildings and facilities associated with the March ARB. In addition, land use compatibility was addressed as part of the MVIAP (City of Moreno Valley 2002), which notes that "…the presence of a road [e.g., Iris Avenue and Indian Street]…acts as a significant buffer" and serves to address land use compatibility issues between the residential uses and proposed business park/light industrial land uses within the Area Plan. The MVIAP also specifies a "300' Residential Buffer," as shown on EIR Figure 2-3, which requires the maintenance of a 300-foot buffer between industrial and residential buildings; light industrial buildings proposed on site would not occur in the buffer zone. Therefore, in conclusion, based on the limited visibility of the site from individual residences, the generally higher quality buildings and landscaping elements proposed by the Project, and the presence of intervening major roadways that would serve as visual separators, implementation of the proposed Project would have a less than significant impact to the visual character of existing residential neighborhoods.

Threshold 4: Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area

The MVIAP includes standards for lighting within the Area Plan as follows:

> *Exterior light fixtures shall be designed and placed so as not to provide light spillage on adjacent properties or public rights-or-way. The use of "full cut off' fixtures should be used adjacent to the MARB/MIP to reduce nighttime glare towards the flight line* (City of Moreno Valley, 2002).

In addition, City Ordinance No. 359 addresses light and glare, and requires the following:

> *No operation, activity, sign or lighting fixture shall create illumination which exceeds 0.5 footcandles minimum maintained on any adjacent property, whether the illumination is direct or indirect light from the source. All lighting shall be designed to project downward and shall not create glare on adjacent properties* (City of Moreno Valley n.d.).

The proposed Project has been designed to adhere to the requirements of both Ordinance No. 359 and the MVIAP, and future implementing projects (i.e., building permits) would be required to demonstrate compliance with these standards. Compliance would ensure that the proposed Project does not produce substantial amounts of light or glare affecting the day or nighttime views of adjacent properties.

With respect to daytime glare impacts that could result from reflective building materials, the proposed Project would involve the construction and operation of four buildings. The majority of the exterior building surfaces would consist of tilt-up concrete construction that does not include any materials with a potential to produce substantial amounts of glare. Along the visually prominent corners of each of the buildings, enhanced architecture would be provided, including the use of glazing (glass). While glazing has a potential to result in glare effects, such effects would not adversely affect the daytime views of any surrounding properties, including motorists along adjacent roadways and the March ARB because the glass would not be mirrored. Additionally, not only would areas proposed for glazing be limited to the corners of and main entrances to the buildings, but such glazing would be screened from public view by the screen walls and landscaping proposed along the Project's perimeter. Accordingly, significant daytime glare impacts would not occur.

As noted previously, the proposed Project site is located within a 45-mile radius of the Mount Palomar Observatory. Although not addressed by the City of Moreno Valley's General Plan, any development Project within a 45-mile radius of the observatory that would add artificial light sources has the potential to contribute to skyglow effects, which could adversely affect operations at the observatory. An individual development project such as the proposed Project that is located approximately 43 miles from the observatory and required to comply with City of Moreno Valley Ordinance No. 359 to prevent light spillage and use full cut off' fixtures has no potential to directly impact nighttime observations at the observatory.

4.1.4 CUMULATIVE IMPACT ANALYSIS

As noted under the discussion of Threshold 1, the Project site does not offer any prominent scenic vistas under existing conditions. Views from the Project area to the Badlands Mountains and Box

Spring Mountains are available in the Project area, but such views are available throughout the City of Moreno Valley. Additionally, and as shown on Figure 4.1-2, the City of Moreno Valley General Plan General Plan does not identify any scenic routes or view corridors within close proximity of the Project site. With buildout of the proposed Project and other developments within the Project's viewshed, which would include buildout of the MVIAP and surrounding areas, there would be no significant adverse impact to any existing scenic vistas. This conclusion is consistent with the City of Moreno Valley's General Plan EIR (City of Moreno Valley 2006b 5.11-5), which concluded that buildout of the City in accordance with its General Plan would not have any significant direct or cumulative impact to local or regional aesthetics with enforcement of the City's General Plan and Specific Plans. As previously stated (and more thoroughly discussed in Subsection 4.9, Land Use and Planning), the proposed Project is consistent with the City's General Plan and MVIAP (Specific Plan 208). Accordingly, a cumulatively significant impact to scenic vistas would not occur with buildout of the proposed Project.

As noted under the analysis of Threshold 2, the Project site is not located within close proximity to any designated Scenic Routes and does not contain any scenic resources under existing conditions, including, but not limited to, trees, rock outcroppings, and historic buildings. Therefore, the proposed Project has no potential directly impact a scenic resource or to contribute to a cumulatively significant scenic resource impact.

With respect to visual quality and character of the site and surrounding area, under cumulative conditions the geographic area of the MVIAP would be fully built-out with business park/light industrial land uses. As with the proposed Project, uses within the MVIAP would be subject to the development regulations and design standards contained in the MVIAP. Mandatory compliance to these development regulations and design standards would ensure that the business park/light industrial development within the remaining undeveloped portions of the MVIAP would incorporate high quality building materials, site design, and landscaping so as to minimize the potential for adverse effects associated with visual quality and character (City of Moreno Valley 2002). Moreover, the greatest potential for impacts to visual quality/character that could result from construction or buildout of the MVIAP is potential impacts to the existing residential neighborhoods located to the northeast and east of the MVIAP area. However, and as noted above under the analysis of Threshold 3, under existing conditions these residential areas are oriented away from the Project site. Additionally, with buildout of the MVIAP, existing westward views from these residential areas would change from that of an open field beyond which is the March ARB, to that of a business park/light industrial development with perimeter landscaping. The buildings that would be constructed on the Project site and within the MVIAP would display the aesthetic qualities required by the MVAIP and which have been incorporated into the proposed Project's design as described in Section 3.0, Project Description. As such, the Project would not considerably contribute to an adverse cumulative impact to the existing visual character or quality of the Project site or its surroundings.

With respect to potential cumulative light and glare impacts, City of Moreno Valley Ordinance No. 359 prohibits lighting from impacting adjacent properties, and sets a limit of 0.5 footcandles on the maximum amount of "spill over" lighting that can directly or indirectly affect adjacent properties (City of Moreno Valley n.d.). Similarly, the County of Riverside and cities in the surrounding area enforce light pollution regulations (Riverside County Ord. 655, City of Perris Zoning Ord. Sec. 19.01 *et. seq*., City of Riverside Municipal Code Sec. 19.590.070). As noted previously, the proposed Project site is located within a 45-mile radius of the Mount Palomar Observatory. Although not

addressed by the City's General Plan, the proposed Project nonetheless has the potential to contribute to skyglow effects when considered in the context of other developments within the City of Moreno Valley. As noted above, all development with artificial light sources located within the City of Moreno Valley are required to comply with Ordinance No. 359. The restriction on "spill over" lighting enforced by Ordinance No. 359 also has the effect of minimizing light and glare that would create skyglow. Additionally, development projects with artificial light sources in surrounding jurisdictions would be required to comply with the light reduction requirements applicable in their respective jurisdiction. Therefore, because City of Moreno Valley Ordinance No. 359 and the light control regulations of other jurisdictions within the 45-mile radius of the Observatory would minimize the amount of skyglow that could affect nighttime operations at the observatory, and the proposed Project is mandated to comply with the City's Ordinance No. 359, the Project's contribution to skyglow impacts to the Mt. Palomar Observatory are determined to be less than cumulatively considerable.

4.1.5 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Compliance with these measures was assumed throughout the above analysis of aesthetics.

PR 4.1-1 The Project is required to comply with City of Moreno Valley Ordinance No. 359, which addresses artificial lighting and glare.

PR 4.1-2 The Project is required to comply with all applicable development regulations and design standards of the Moreno Valley Industrial Area Plan, including standards related to the design of artificial lighting contained within Section III, *Development Standards and Guidelines*, and Section IV, *Development Framework*.

4.1.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: Less than Significant Impact. The Project would not significantly impact a scenic vista. The Project site does not contain any scenic vistas, nor does it offer unique views of any visually prominent features; therefore, impacts to scenic vistas would be less than significant.

Threshold 2: No Impact. The Project has no potential to damage scenic resources within a scenic highway corridor. The Project site is not located within the viewshed of a scenic highway and the Project site does not contain any scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings. Accordingly, a significant impact to scenic resources within a state scenic highway has no potential to occur.

Threshold 3: Less than Significant Impact. The Project would not substantially degrade the existing visual character or quality of the site or its surrounding areas during Project construction or operation. Although the proposed Project would result in a change to the existing visual character of the site (i.e., from undeveloped land to a light industrial business center), the Project incorporates a number of site design, architectural, and landscaping elements consistent with the requirements of the MVIAP that would ensure the provision of a high quality development. Impacts would be less than significant.

Threshold 4: Less than Significant Impact. The Project would not create substantial light or glare. Compliance with the MVIAP requirements for lighting and mandatory compliance with City of

Moreno Valley Ordinance No. 359 would ensure less than significant impacts associated with light and glare affecting day or nighttime views in the area.

4.1.7 MITIGATION

Impacts would not be significant; therefore, mitigation measures would not be required.

4.2 AIR QUALITY

This subsection is based on two technical studies that were prepared by Urban Crossroads, Inc. to evaluate the Project's potential to adversely affect local and regional air quality. These studies include the following: 1) "March Business Center Air Quality Impact Analysis" (October 31, 2011), which is included as *Technical Appendix B1* to this EIR (Urban Crossroads 2011a); and 2) "March Business Center Mobile Source Health Risk Assessment" (October 31, 2011), which is included as *Technical Appendix B2* to this EIR (Urban Crossroads 2011b). In addition, information used to support the analysis in this subsection was obtained from the City of Moreno Valley General Plan (Moreno Valley 2006a).

4.2.1 EXISTING CONDITIONS

A. Atmospheric Setting

The Project site is located in the South Coast Air Basin (SCAB, or "Basin") which is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAB encompasses approximately 6,745 square miles and includes Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The SCAB is bound by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east, respectively; and the San Diego County line to the south (Urban Crossroads 2011a 12).

B. Regional Climate and Meteorology

The regional climate – temperature, wind, humidity, precipitation, and the amount of sunshine – has a substantial influence on air quality. The distinctive climate of the SCAB is determined by its terrain and geographical location, which comprises a coastal plain connected to broad valleys and low hills and surrounded by the Pacific Ocean and high mountains. The annual average temperatures throughout the SCAB vary from the low to middle 60s, measured in degrees Fahrenheit. Inland areas in the SCAB, like where the Project site is located, show more variability in annual minimum and maximum temperatures than coastal areas within the SCAB due to a decreased marine influence (Urban Crossroads 2011a 12-13).

The climate of the SCAB is characterized as semi-arid; however, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB and the relative high humidity also heightens the conversion of sulfur dioxide to sulfates. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71% along the coast and 59% inland (Urban Crossroads 2011a 13).

Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year there are approximately 10 hours of possible sunshine, and on the longest day of the year there are approximately 14 1/2 hours of possible sunshine (Urban Crossroads 2011a 13).

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution, as the direction and speed of wind patterns determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows

associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the SCAB is the "Catalina Eddy," a low level cyclonic (counter-clockwise) flow centered over Santa Catalina Island which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections. In the Project area, the prevailing winds move predominately from the northwest to the southeast and southeast to northwest (Urban Crossroads 2011a 13-15)

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level (Urban Crossroads 2011a 14).

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as NO_X and CO from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline (Urban Crossroads 2011a 14).

C. *Air Quality Pollutants and Associated Health Effects*

The federal government and State of California have established maximum permissible concentrations for common air pollutants that may pose a risk to human health or would otherwise degrade air quality and adversely affect the environment. These regulated air pollutants are referred to as "criteria pollutants." An overview of the common criteria air pollutants in the SCAB, their sources, and associated effects to human health are summarized on the following pages.

- Carbon Monoxide (CO) is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest in the winter during the morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. CO is emitted directly from internal combustion engines; therefore, motor vehicles operating at slow speeds are the primary source of CO in the SCAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections (Urban Crossroads 2011a 18).

  CO combines with hemoglobin to produce carboxyhemoglobin (COHb), which interferes with the transport of oxygen throughout the body. The most common symptoms associated with CO

poisoning include headache, nausea, vomiting, dizziness, fatigue, and weakness. Exposure to CO can also result in chest pain. Individuals most at risk to the effects of CO include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic oxygen deficiency (Urban Crossroads 2011a 21).

- Sulfur Dioxide (SO_2) is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms sulfates (SO_4). Collectively, these pollutants are referred to as sulfur oxides (SO_X) (Urban Crossroads 2011a 19).

  SO_2 is a respiratory irritant to people afflicted with asthma. After a few minutes exposure to low levels of SO_2, asthma sufferers can experience breathing difficulties, including airway constriction, resistance to air flow, and reduction in breathing capacity. Although healthy individuals do not exhibit similar acute breathing difficulties in response to SO_2 exposure at low levels, animal studies suggest that very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract (Urban Crossroads 2011a 25).

- Nitrogen Oxides (NO_X) consist of nitric oxide (NO), nitrogen dioxide (NO_2) and nitrous oxide (N_2O) and are formed when nitrogen (N_2) combines with oxygen (O_2). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO_2 absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the nitrogen oxide compounds, NO_2 is the most abundant in the atmosphere. As ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by regional monitoring stations (Urban Crossroads 2011a 19).

  Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO_X. Short-term exposure to NO_X can result in resistance to air flow and airway contraction in healthy subjects. Exposure to NO_X can result in larger decreases in lung functions in individuals with asthma or chronic obstructive pulmonary diseases (e.g., chronic bronchitis, emphysema), as these individual are more susceptible to the effects of NO_X than healthy individuals (Urban Crossroads 2011a 24-25).

- Ozone (O_3) is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_X) – both byproducts of internal combustion engine exhaust – undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, warm temperatures, and light wind conditions are favorable to the formation of this pollutant (Urban Crossroads 2011a 19).

  Short-term exposure (lasting for a few hours) to ozone at levels typically observed in southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups

for ozone effects. An increased risk for asthma has been found in children who participate in multiple sports and live in communities with high ozone levels (Urban Crossroads 2011a 21).

- Particulate Matter is a major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. Particles less than 10 microns or smaller (PM_{10}) easily become airborne and can reduce visibility. Particles less than 2.5 microns or smaller ($PM_{2.5}$) are formed in the atmosphere by sulfates or nitrates, a byproduct of primary gaseous emissions of SO_2 and NO_X (Urban Crossroads 2011a 19-20).

  Elevated ambient concentrations of fine particulate matter (PM_{10} and $PM_{2.5}$) have been linked to respiratory infections, number and severity of asthma attacks, and increased hospital admissions. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer. Daily fluctuations in $PM_{2.5}$ concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long-term exposure to particulate matter. The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM_{10} and $PM_{2.5}$ (Urban Crossroads 2011a 24).

- Volatile Organic Compounds (VOCs) and Reactive Organic Gasses (ROGs) are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. Both VOCs and ROGs are precursors to ozone and contribute to the formation of smog through atmospheric photochemical reactions. VOCs and ROGs have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs often have an odor, including such common VOCs as gasoline, alcohol, and the solvents used in paints (Urban Crossroads 2011a 20).

  Odors generated by VOCs can irritate the eye, nose, and throat, which can reduce respiratory volume. In addition, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system (Urban Crossroads 2011a 26).

- Lead (Pb) is a heavy metal that is highly persistent in the environment. Historically, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. As a result of the removal of lead from gasoline, there have been no violations at any of the SCAQMD's regular air monitoring stations since 1982. Currently, emissions of lead are largely limited to stationary sources such as lead smelters (Urban Crossroads 2011a 20).

  Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures, and death. Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure (Urban Crossroads 2011a 25-26).

D. Existing Air Quality

The quality of the air is measured based upon ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect, as well health effects of each pollutant regulated under these standards are shown in Table 4.2-1, *State and National Criteria Pollutant Standards, Effects, and Sources*.

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards presented in Table 4.2-1. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for ozone (O_3), carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), inhalable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$) are not equaled or exceeded at any time in any consecutive three-year period; and the federal standards (other than O_3, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not exceeded more than once per year. The ozone standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when 99% of the daily concentrations, averaged over three years, are equal to or less than the standard (Urban Crossroads 2011a 15).

❑ Regional Air Quality

The SCAQMD monitors levels of various criteria air pollutants at 40 permanent monitoring stations throughout its jurisdiction. In 2009, the most recent year for which detailed data is available, the federal and state standards for ozone PM_{10} and $PM_{2.5}$ were exceeded on at least one day at most monitoring locations within the SCAB. Measured levels of NO_2, SO_2, CO, sulfates and lead within the SCAB did not exceed Federal and state standards in 2009 (Urban Crossroads 2011a 18). The attainment status for criteria pollutants within the SCAB is summarized on Table 4.2-2, *Attainment Status of Criteria Air Pollutants in the South Coast Air Basin (SCAB).*

❑ Local Air Quality

The nearest long-term air quality monitoring station to the Project site for ozone and PM_{10} is the Redlands monitoring station, located approximately 13.3 miles northeast of the Project site. The nearest long-term air quality monitoring station to the Project site for CO, NO_2, and $PM_{2.5}$ is the San Bernardino monitoring station, located approximately 15.5 miles northwest of the Project site. The San Bernardino monitoring station was utilized in lieu of the Redlands monitoring station only in instances where data was not available from the Redlands site (i.e., long-term CO, NO_2, and $PM_{2.5}$ concentration levels). Data for SO_2 concentrations has been omitted, as attainment of applicable federal and state for this criteria pollutant is routinely met in the SCAB and there are few monitoring stations that measure SO_2 concentrations (Urban Crossroads 2011a 18). Table 4.2-3, *Project Area Air Quality Monitoring Summary*, provides a summary of ambient air quality conditions in the general vicinity of the Project site over the most recent three (3)-year period for which air quality data is available (i.e., 2007-2009).

Table 4.2-1 State and National Criteria Pollutant Standards, Effects, and Sources

POLLUTANT	AVERAGING TIME	STATE STANDARD	NATIONAL STANDARD	HEALTH AND ATMOSPHERIC EFFECTS	MAJOR SOURCES
Ozone	1 hour 8 hours	0.09 ppm 0.07 ppm1	--- 0.075 ppm	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Formed when reactive organic gases (ROG) and nitrogen oxides (NO_X) react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial / industrial mobile equipment.
Carbon Monoxide	1 hour 8 hours	20 ppm 9.0 ppm	35 ppm 9 ppm	Classified as a chemical asphyxiant, carbon monoxide interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
Nitrogen Dioxide	1 hour Annual Avg.	0.18 ppm 0.030	--- 0.053 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.
Sulfur Dioxide	1 hour 3 hours 24 hours	0.25 ppm --- 0.04 ppm	75 ppb --- ---	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
Inhalable Particulate Matter (PM-10)	24 hours Annual Avg.	50 µg/m3 20 µg/m3	150 µg/m3 ---	May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
Fine Particulate Matter (PM-2.5)	24 hours Annual Avg.	--- 12 µg/m3	35 µg/m3 15 µg/m3	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and results in surface soiling.	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning; Also, formed from photochemical reactions of other pollutants, including NO_X, sulfur oxides, and organics.
Lead	Monthly Ave. Quarterly Rolling 3-Month Avg.	1.5 µg/m3 --- ---	--- 1.5 µg/m3 0.15 µg/m3	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurological dysfunction.	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
Hydrogen Sulfide	1 hour	0.03 ppm	No National Standard	Nuisance odor (rotten egg smell), headache, and breathing difficulties (higher concentrations)	Geothermal Power Plants, Petroleum Production and refining
Sulfates	24 hour	25 $\mu g/m^3$	No National Standard	Breathing difficulties, aggravates asthma, reduced visibility	Produced by the reaction in the air of SO_2.
Visibility Reducing Particles	8 hour	Light extinction of 0.23/km; visibility of 10 miles or more	No National Standard	Reduces visibility, reduced airport safety, lower real estate value, discourages tourism.	See PM_{10}/$PM_{2.5}$.

NOTE: ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter.
1. This concentration was approved by the Air Resources Board on April 28, 2005 and became effective May 17, 2006.
Source: Urban Crossroads 2011a, Table 2-1.

Table 4.2-2 Attainment Status of Criteria Pollutants in the South Coast Air Basin (SCAB)

CRITERIA POLLUTANT	STATE DESIGNATION	FEDERAL DESIGNATION
Ozone - 1hour standard	Nonattainment	No Standard
Ozone - 8 hour standard	Nonattainment	Extreme Nonattainment[1]
PM_{10}	Nonattainment	Serious Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Attainment/Maintenance
Nitrogen Dioxide	Nonattainment[2]	Attainment/Maintenance
Sulfur Dioxide	Attainment	Attainment
Lead	Attainment/Nonattainment[3]	Attainment/Nonattainment[4]
All others	Attainment/Unclassified	Attainment/Unclassified

1. The USEPA approved re-designation from Severe 17 to Extreme Nonattainment on May 5, 2010 to be effective June 4, 2010.
2. The SCAB was reclassified from attainment to nonattainment for nitrogen dioxide on March 25, 2010.
3. Los Angeles County portion of the SCAB was reclassified from attainment to nonattainment for lead on March 25, 2010; the remainder of the SCAB is in attainment of the State Standard.
4. The Los Angeles County portion of the SCAB is classified as nonattainment; the remainder of the SCAB is in attainment of the State Standard.

Source: Urban Crossroads 2011a, Table 2-2.

❑ Air Quality Conditions at Project Site

The Project site is vacant under existing conditions and, therefore, does not generate quantifiable emissions. Maintenance activities at the Project site (i.e., disking) may generate temporary fugitive dust emissions (PM_{10} and $PM_{2.5}$); however, since detailed information is not available and given the infrequent and intermittent nature of site maintenance activities, temporary fugitive dust emissions that may be generated during site maintenance activities cannot be accurately calculated and would be speculative in nature. Absent additional information, existing air quality conditions at the Project site would likely be similar to local ambient conditions (presented in Table 4.2-3).

E. Applicable Environmental Regulations

The following is a brief description of the federal, state, and local environmental laws and related regulations governing air quality emissions.

❑ Federal Regulations

The U.S. Environmental Protection Agency (EPA) is responsible for setting and enforcing the NAAQS for O_3, CO, NO_X, SO_2, PM_{10}, and lead. The U.S. EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The U.S. EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the National Ambient Air Quality Standards (NAAQS), and specifies future dates for achieving compliance. The CAA also mandates that states submit and implement State Implementation Plans (SIPs) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

Table 4.2-3 Project Area Air Quality Monitoring Summary

POLLUTANT	STANDARD	YEAR		
		2007	2008	2009
Ozone (O_3)[a]				
Maximum 1-Hour Concentration (ppm)	--	0.139	0.142	0.125
Maximum 8-Hour Concentration (ppm)	--	0.116	0.114	0.108
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	66	65	53
Number of Days Exceeding State 8-Hour Standard	> 0.07 ppm	88	94	88
Number of Days Exceeding Federal 1-Hour Standard	> 0.12 ppm	4	4	1
Number of Days Exceeding Federal 8-Hour Standard	> 0.075 ppm	73	77	67
Number of Days Exceeding Health Advisory	≥ 0.15 ppm	0	0	0
Carbon Monoxide (CO)[b]				
Maximum 1-Hour Concentration (ppm)	--	4	7	3
Maximum 8-Hour Concentration (ppm)	--	2.1	2	1.8
Number of Days Exceeding State 1-Hour Standard	> 20 ppm	0	0	0
Number of Days Exceeding Federal / State 8-Hour Standard	> 9.0 ppm	0	0	0
Number of Days Exceeding Federal 1-Hour Standard	> 35 ppm	0	0	0
Nitrogen Dioxide (NO_2)[b,c]				
Maximum 1-Hour Concentration (ppm)	--	0.07	0.09	0.08
Annual Arithmetic Mean Concentration (ppm)	--	0.0206	0.0258	0.0200
Number of Days Exceeding State 1-Hour Standard	> 0.18[c] ppm	0	0	0
Inhalable Particulates (PM_{10})[a]				
Maximum 24-Hour Concentration (µg/m^3)	--	120	85	80
Number of Samples	--	57	45	58
Number of Samples Exceeding State Standard	> 50 µg/m^3	32	35	9
Number of Samples Exceeding Federal Standard	> 150 µg/m^3	0	0	0
Ultra-Fine Particulates ($PM_{2.5}$)[b]				
Maximum 24-Hour Concentration (µg/m^3)	--	68.6	43.0	42.2
Annual Arithmetic Mean (µg/m^3)	--	18.1	13.4	13.4
Number of Samples Exceeding Federal 24-Hour Standard	> 35[d] µg/m^3	8	4	2

a Perris Monitoring Station (SRA 24) data.
b Metropolitan Riverside County 2 (SRA 32/Magnolia) data.
c Metropolitan Riverside County 1 (SRA 23/Rubidoux) data only for year 2007.
d CARB has revised the NO_2 1-hour state standard from 0.25 ppm to 0.18 ppm, effective March 20, 2008.
e U.S. EPA has revised the federal 24-hour $PM_{2.5}$ standard from 65 µg/m^3 to 35 µg/m^3, effective December 17, 2006.
Source: Urban Crossroads 2011a, Table 2-3.

The 1990 amendments to the CAA, that identify specific emission reduction goals for areas not meeting the NAAQS, require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions).

Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants: O_3, NO_2, SO_2, PM_{10}, CO, $PM_{2.5}$, and lead. The NAAQS were amended in July 1997 to include an additional standard for O_3 and to adopt a NAAQS for $PM_{2.5}$. Table 4.2-1 provides the NAAQS within the SCAB.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and

natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and nitrogen oxides (NO_X). NO_X is a collective term that includes all forms of nitrogen oxides (NO, NO_2, NO_3) which are emitted as byproducts of the combustion process.

❑ California Regulations

The California Air Resources Board (CARB), which became part of the California EPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. The California CAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. The CARB established the California Ambient Air Quality Standards (CAAQS) for all pollutants for which the federal government has NAAQS and, in addition, established standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. However at this time, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the SCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS.

Local air quality management districts, such as the SCAQMD, regulate air emissions from commercial and light industrial facilities. All air pollution control districts have been formally designated as being in attainment or non-attainment for each CAAQS (refer to Table 4.2-2).

Serious non-attainment areas are required to prepare air quality management plans that include specified emission reduction strategies in an effort to meet clean air goals. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than 5% per year under certain circumstances.

❑ Air Quality Management Planning

The Project site is located within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD was created by the 1977 Lewis Presley Air Quality Management Act, which merged four (4) county air pollution control bodies into one regional district. Pursuant to the Act, the SCAQMD is responsible for bringing air quality within the areas under its jurisdiction into conformity with federal and state air quality standards.

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, and in conformance with California Health & Safety Code §40702 et seq. and the California Clean Air Act, the SCAQMD has adopted an Air Quality Management Plan (AQMP) to plan for the regional improvement of air quality. AQMPs are updated regularly in order to more effectively reduce emissions and accommodate growth. Each version of the plan is an update of the previous plan and has a 20-year horizon with a revised baseline. The SCAQMD Governing Board adopted its most recent AQMP on June 1, 2007. SCAQMD is in the process of developing its newest AQMP for the SCAB, the 2012 AQMP. The 2012 AQMP was not available for public review as of the writing of this EIR.

4.2.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to air quality if the Project or any Project-related component would:

1. *Conflict with or obstruct implementation of the applicable air quality plan;*

2. *Violate any air quality standard or contribute substantially to an existing or projected air quality violation;*

3. *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);*

4. *Expose sensitive receptors to substantial pollutant concentrations; or*

5. *Create objectionable odors affecting a substantial number of people.*

Within the context of the above threshold considerations, emissions generated by a development project would be significant under Thresholds 2 and 3 if they exceeded the regional thresholds established by the SCAQMD for criteria pollutants and would be significant pursuant to Threshold 4 if they exceeded the localized thresholds established by the State of California and the SCAQMD for criteria pollutants. The criteria applicable to the proposed Project are summarized in Table 4.2-4, *Regional and Localized Thresholds for Criteria Pollutants*. Pursuant to SCAQMD guidance, any project in the SCAB with daily emissions that would exceed any of the thresholds summarized in Table 4.2-4 would be considered as having a significant impact to air quality on both a direct (individual) and cumulative basis (Urban Crossroads 2011a 29-30).

Table 4.2-4 Regional and Localized Thresholds for Criteria Pollutants

POLLUTANT	CONSTRUCTION	OPERATIONAL
Maximum Daily Emissions (Regional Thresholds)		
NO_X	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_X	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Ambient Air Quality for Criteria Pollutants (Localized Thresholds)		
NO_2 (1-hour average)	0.18 ppm	0.18 ppm
PM_{10} (24-hour average)	10.40 µg/m^3	2.50 µg/m^3
$PM_{2.5}$ (24-hour average)	10.40 µg/m^3	2.50 µg/m^3
CO (1-hour average)	20 ppm	20 ppm
CO (8-hour average)	9 ppm	9 ppm

NOTE: ppm = parts per million; µg/m3 = micrograms per cubic meter.
Source: Urban Crossroads 2011a, Table 3-1, pp. 45 & 48.

In addition, pursuant to the thresholds established by the SCAQMD, any project that would emit toxic air contaminants, like diesel particulate matter, and expose receptor populations to an incremental cancer risk of greater than 10 in one million would be evaluated as having a significant impact to air quality under Threshold 4 (Urban Crossroads 2011b 18).

4.2.3 IMPACT ANALYSIS

A. Methodology for Estimating Project-Related Construction Emissions

❑ Maximum Daily Emissions

The California Emissions Estimator Model™ (CalEEMod™), released by the SCAQMD on February 3, 2011, was used to estimate emissions of criteria pollutants NO_X, VOC, PM_{10}, $PM_{2.5}$, SO_X, and CO, associated with construction activities proposed by the Project. Construction-related emissions would be expected from the following construction activities:

- Site Preparation
- Grading
- Paving
- Building Construction
- Architectural Coatings (Painting)
- Construction Workers Commuting

The assumptions for each phase of Project construction was input into the CalEEMod™ model using anticipated construction characteristics (e.g., construction activities, equipment list) and a schedule provided by the Project Construction Manager and Applicant. In addition, information provided by the Project Architect and Applicant was used to quantify the amount of surface area to be painted, which was input into the CalEEMod™ model to calculate VOC emissions associated with the application of architectural coatings (Urban Crossroads 2011a 31-32). Table 4.2-5, *Construction Equipment Assumptions*, summarizes the list of equipment that was assumed in the analysis of construction-related emissions, based on the information provided by the Project Construction Manager and Applicant. In all instances where construction information was not provided and/or not available, the analysis utilizes the default CalEEMod™ model assumptions (Urban Crossroads 2011a 31).

Refer to Appendix B of the Air Quality Impact Analysis (*Technical Appendix B1* to this EIR) for more details on the methodology and assumptions utilized to estimate Project-related construction emissions.

❑ Localized Emissions

Localized emissions associated with Project-related construction activities were estimated and evaluated in accordance with SCAQMD's *Final Localized Significance Threshold Methodology*. The Redlands Source Receptor Area (SRA) was utilized as the as the baseline for ambient air quality. In accordance with SCAQMD guidance for "large" projects (i.e., projects over five acres in size), the Industrial Source Complex-Short Term (ISCST3) dispersion model was utilized to estimate localized pollutant concentrations. The ISCST3 model relied on meteorological conditions from the Redlands monitoring station, as the Redlands station is the closest monitoring station to the Project site for which meteorological data is available. Based on information provided by the Project Construction

Table 4.2-5 Construction Equipment Assumptions

OPERATION	WATER TRUCKS	SCRAPER	GRADER	RUBBER TIRED DOZER	TRACTOR/LOADER/BACKHOE	EXCAVATOR	PAVERS	PAVING EQUIPMENT	ROLLERS	FORKLIFT	CRANES	AIR COMPRESSOR	GENERATOR SET	WELDER	AERIAL LIFTS
Phase I															
Site Preparation	2			3	4										
Mass Grading	2	5	1	2	2	2									
Building Construction					3					3	2		1	3	3
Paving							2	2	2						
Painting												3			2
Phase II															
Building Construction					3					3	2		3	3	
Paving							2	2	2						
Painting												3			2

Source: Urban Crossroads 2011a, Table 3-2.

Manager and Applicant (see Appendix B of the Air Quality Impact Analysis, EIR *Technical Appendix B1*), the ISCST3 model assumed that a maximum of 6.5 acres would be simultaneously graded on the Project site during peak construction activities. Potential sources of construction-related emissions and receptor locations were quantified using the methodology and equations established by SCAQMD (Urban Crossroads 2011a 41-44). Refer to Pages 41 through 44 of the Project's Air Quality Impact Analysis (*Technical Appendix B1* to this EIR) for a detailed explanation of the model inputs and equations used in the analysis of construction-related localized emissions.

B. Methodology for Estimating Project-Related Operational Emissions

❑ Maximum Daily Emissions

The California Emissions Estimator Model™ (CalEEMod™), released by the SCAQMD on February 3, 2011, was used to estimate emissions of criteria pollutants, NO_X, VOC, PM_{10}, $PM_{2.5}$, SO_X, and CO, associated with long-term operation of the proposed Project. Operational emissions would be expected from the following primary sources:

- Vehicles
- Combustion Emissions associated with Natural Gas and Electricity
- Fugitive Dust related to Vehicular Travel
- Landscape Maintenance Equipment
- Architectural Coatings (Painting)

Trip characteristics from the Project's Traffic Impact Analysis (*Technical Appendix J* to this EIR) were utilized to estimate Project-related operational vehicular emissions. It should be noted that the Project's traffic study presents the total Project vehicle trips in terms of Passenger Car Equivalents

(PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at the study area intersections. For purposes of the air quality study the PCE trips were not used, rather to be more representative of actual emissions, the actual number of passenger cars (including light trucks) and heavy trucks were used in the analysis. The vehicle fleet mix, in terms of actual vehicles, as derived from the traffic study for the Project is comprised of approximately 47.6% passenger cars (1,152 passenger cars) and approximately 52.4% total trucks (1,267 trucks) (Urban Crossroads 2011a 34). The total traffic generation in vehicles is 2,419 per day. The proposed Project was input as one land-use for simplicity in the CalEEMod™ emissions inventory model. The total traffic generation in vehicles was divided by the total number of square feet for the Project to derive the trip generation rate for input into the modeling program. For analysis purposes, the total 2,419 vehicles (1,152 passenger cars + 1,267 trucks) is divided by the total square footage for all buildings (1,484,410 square feet) to derive an aggregate trip generation rate (1.63 trips per thousand square feet) for input into the model. Similarly, total truck trips (by axle) were summed for all land uses; the total sum of all trucks was then divided by each category of trucks (by axle) to determine axle-specific truck percentage for the Project as a whole. The distribution of passenger cars was apportioned in accordance with the CalEEMod™ model default distribution and is summarized on Table 4.2-6, *Passenger Car Percentage Breakdown*. The distribution of truck traffic was apportioned in accordance with the CARB's *Assessment of Heavy-Duty Gasoline and Diesel Vehicles in California*, and is summarized on Table 4.2-7, *Heavy Duty Truck Percentage Breakdown*.

Table 4.2-6 Passenger Car Percentage Breakdown

VEHICLE CLASS	PERCENTAGE OF VEHICLES
Light-Duty Autos	55%
Light-Duty Trucks	8%
Light-Duty Trucks	25%
Medium-Duty Trucks	12%

Source: Urban Crossroads 2011a, Table 3-4.

Table 4.2-7 Heavy Duty Truck Percentage Breakdown

VEHICLE CLASS	PERCENTAGE OF VEHICLES
Light Heavy Duty Trucks	4.6%
Light Heavy Duty Trucks	1.3%
Medium Heavy Duty Trucks	45.2%
Heavy Heavy Duty Trucks	48.8%

Source: Urban Crossroads 2011a, Table 3-5.

The Air Quality Impact Analysis (*Technical Appendix B1*) for the Project utilized a conservative approach for estimating long-term operational emissions associated with vehicle use. Per the SCAQMD 1993 CEQA Handbook, a one-way trip length of 17 miles was assumed for passenger car trips. For heavy duty trucks, the one-way trip length was derived using a formula that assumed that 50% of all Project-related heavy duty trucks would travel to Port of Los Angeles/Long Beach (approximately 78 miles from the Project site), and the remaining 50% of all Project-related heavy duty trucks would be distributed equally to one of the following locations at far edges of the SCAB: Banning Pass (approximately 27 miles from the Project site); San Diego County

Line (approximately 46 miles from the Project site); Cajon Pass (approximately 42 miles from the Project site); and Downtown Los Angeles (approximately 64 miles from the Project site). Using this formula, the average Project-related one-way heavy duty truck trip would be 61 miles. Weighting the average trip length by the Project's estimated vehicle fleet mix resulted in an average weighted one-way trip length of 40.52 miles. The weighted one-way trip used in the evaluation of the Project's operational emissions is higher than the recommended values of the SCAQMD and Southern California Association of Governments (SCAG) and likely overstates the Project's long-term impact (Urban Crossroads 2011a 34-37).

Using the vehicle mix one-way trip length described above, the Project's operational vehicular emissions were derived from vehicle miles traveled (VMT). VMT for a given project is calculated by multiplying the total number of vehicle trips to/from the project site by the average trip length (in miles). This likely results in the over-estimation and double-counting of emissions for distribution warehouse centers like the proposed Project because the proposed land use is likely to attract (divert) existing vehicle trips that are already on the circulation system as opposed to generating new trips. The method of estimating VMT for use in calculating vehicle emissions is highly speculative and likely overstates the potential impact of the Project. Distribution centers such as this Project are developed to facilitate more efficient distribution of goods, and likely result in an overall reduction in regional VMT by heavy duty freight trucks. Thus, development of this Project will not create 1,267 new daily truck trips within the region, as is assumed in the analysis. Most, if not all, of those truck trips will exist within this region either with or without the proposed Project – they will just travel to different destinations. There are no known methodologies for estimating the net effect of redistributed truck trips on freight truck vehicle miles within the region.

Project-related long-term operational emissions associated with the usage of natural gas and electricity, fugitive dust related to vehicular travel, operation of landscape maintenance equipment, and the application of architectural coatings were estimated using CalEEMod™ model defaults.

Please refer to Appendix B of the Air Quality Impact Analysis (*Technical Appendix B1* to this EIR) for more details on the methodology and assumptions utilized to estimate Project-related operational emissions.

❑ Localized Significance

Localized emissions associated with long-term operation of the Project were estimated and evaluated using the SCREEN3 model. The SCREEN3 model utilizes algorithms and dispersion screening techniques in accordance with the EPA's *Screening Procedures for Estimating the Air Quality Impact of Stationary Sources* to estimate localized emissions from point, area, and volume stationary sources. Localized emissions were quantified using the methodology and equations established by the EPA (Urban Crossroads 2011a 46-47). Refer to Pages 46 and 47 of the Project's Air Quality Impact Analysis (*Technical Appendix B1* to this EIR) for a detailed explanation of the model inputs and equations used in the analysis of construction-related localized emissions.

A CO "Hot Spot" Analysis was not performed to evaluate the effect of Project-related vehicular emissions on localized concentrations of CO at intersections in the vicinity of the Project site. CO "Hot Spots" are typically associated with idling vehicles at extremely busy intersections (i.e., intersections with an excess of 100,000 vehicle trips per day) in areas with unusual meteorological and topographical conditions. At Project buildout, the busiest intersection in the Project vicinity would attract approximately 60,400 vehicle trips per day, which is well below the threshold typically

associated with CO "Hot Spots." In addition, there are no unique topographical or meteorological conditions in the Project vicinity that could contribute to the formation of a CO "Hot Spots." Furthermore, the SCAB has been designated as an attainment area for CO since 2007 and all areas within the SCAB are modeled to achieve applicable federal and state CO concentration standards. Therefore, Project-related vehicular emissions are not anticipated to result in a substantial contribution of CO concentrations at intersections in the vicinity of the Project site and a CO "Hot Spot" analysis is not warranted (Urban Crossroads 2011a 48-49).

C. *Methodology for Estimating Project-Related Diesel Particulate Emissions*

Diesel particulate emissions were estimated using the 2007 version of the Emission FACtor model (EMFAC) developed by the CARB. EMFAC 2007 is a mathematical model that was developed to calculate emission rates from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB for projections of changes in future emissions from on-road mobile sources. The EMFAC 2007 model quantifies annual diesel particulate exposure for different receptor populations using a variety of factors including vehicle activity, vehicle speed, temperature and relative humidity (Urban Crossroads 2011b 11-13). Refer to Pages 11 through 16 of the Project's Mobile Source Health Risk Assessment (*Technical Appendix B2* to this EIR) for a detailed description of the model inputs and equations used in the estimation of Project-related diesel particulate emissions.

The effect of Project-related diesel particulate emissions was quantified in accordance with the SCAQMD's *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*. Pursuant to SCAQMD's recommendations, the ISCST3 model, which uses a steady state Gaussian plume model to estimate ground level effects of emissions from emissions sources, was used to evaluate the significance of Project-related diesel particulate emissions (Urban Crossroads 2011b 17). Refer to Pages 17 and 18 of the Project's Mobile Source Health Risk Assessment (*Technical Appendix B2* to this EIR) for a detailed description of the model inputs and equations used in the estimation of average particulate concentrations associated with operations at the Project site.

Health risks associated with exposure to diesel particulate emissions are defined in terms of the probability of developing cancer as a result of exposure to a chemical at a given concentration. The cancer risk probability is determined through a series of equations to calculate unit risk factor, cancer potency factor, and chronic daily intake. The equations and input factors utilized in the Project analysis were obtained from the California Environmental Protection Agency, Office of Environmental Health Hazard (Urban Crossroads 2011b 18-19). Refer to Pages 18 through 20 of the Project's Mobile Source Health Risk Assessment (*Technical Appendix B2* to this EIR) for a detailed description of the variable inputs and equations used in the estimation of receptor population health risks associated with operations at the Project site.

Threshold 1: Would the Project conflict with or obstruct implementation of the applicable air quality plan?

The 2007 SCAQMD AQMP, which is the applicable air quality plan for the Project area, projects long-term air quality conditions for the SCAB. The air quality conditions presented in the 2007 AQMP are based in part on the growth forecasts that were used as inputs for the regional transportation model. The growth forecasts utilized in the 2007 AQMP are based on the growth

projections identified by SCAG in its 2004 Regional Transportation Plan (RTP). The RTP assumed that development in the various incorporated and unincorporated areas within the SCAB would occur in accordance with the adopted general plans for these areas. In addition, the air quality conditions presented in the 2007 AQMP are based on the assumption that future development projects would implement strategies to reduce emissions generated during the construction and operational phases of development. Accordingly, if a proposed project is consistent with these growth forecasts, and if available emissions reduction strategies are implemented as effectively as possible on a project-specific basis, then the project would be considered to be consistent with the AQMP.

The SCAQMD has established criteria for determining consistency with the AQMP. These criteria are defined in Chapter 12, Sections 12.2 and 12.3 of the SCAQMD CEQA Air Quality Handbook and are discussed below.

- ***Consistency Criterion No. 1:*** *The proposed project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.*

Consistency Criterion No. 1 refers to violations of the CAAQS and NAAQS. As evaluated under Threshold 4 (below), the Project would not exceed localized significance thresholds for any criteria pollutant during construction (after mitigation) or during long-term operation. Accordingly, localized emissions would not contribute substantially to an existing or potential future violation or delay the attainment of air quality standards.

As discussed under Thresholds 2 and 3 (below), the Project is anticipated to exceed regional threshold criteria for NO_X during short-term construction activities and long-term operational activities. The Project's long-term emissions of VOCs also are projected to exceed regional threshold criteria. However, the proposed Project would be consistent with the adopted land use designations for the subject property as applied by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208). Therefore, the Project is evaluated as being consistent with the growth forecast utilized in the 2007 AQMP and the emissions that would be generated by the Project are assumed to be accounted for in the AQMP. Thus, the Project's regional emissions would not contribute substantially to an existing or potential future violation or delay the attainment of air quality standards.

- ***Consistency Criterion No. 2:*** *The proposed project will not exceed the assumptions in the AQMP in 2011 or increments based on the years of project buildout phase.*

The growth forecasts used in the AQMP to project future emissions levels are based in part on land use data provided by lead agency general plan documentation. Projects that propose to increase the intensity of use on a subject property may result in higher traffic volumes than accounted for in the applicable local general plan, thereby resulting in increased stationary area source emissions and/or vehicle source emissions when compared to the AQMP assumptions. If however, a project does not exceed the growth projections in the applicable local general plan, then the project is considered to be consistent with the growth assumptions in the AQMP.

The prevailing planning document for the proposed Project site is the City of Moreno Valley General Plan. The City of Moreno Valley General Plan Land Use Map designates a majority of the Project

site for Business Park/Light Industrial (BP) land uses. The northwest corner of the site is designated for Commercial (C) land uses. The Business Park/Light Industrial land use designation calls for employee intensive uses, including manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities, with a building intensity up to 1.0 floor area ratio (FAR). The Commercial land use designation calls for local retail and service commercial activities, with a building intensity up to 1.0 FAR. Similarly, the Moreno Valley Industrial Area Plan calls for a majority of the site to be developed as Industrial with the northwestern corner, coinciding with the General Plan's Commercial designation, designated as Industrial Support Area. As discussed in EIR Subsection 4.9, Land Use and Planning, the proposed Project would be consistent with the General Plan for the subject property. Even if an argument could be made that the AQMP assumed development of the Project site's northwestern corner with commercial land uses, developing this area as proposed by the Project would decrease intensity on the subject property, as compared to the General Plan assumptions, which would decrease projected traffic and associated air emissions at the Project site. As such, the proposed Project would not exceed the assumptions of the AQMP. The Project is consistent with the AQMP and no impact due to inconsistency with the AQMP would occur.

Threshold 2:	***Would the Project violate any air quality standard or contribute substantially to an existing or projected air quality violation?***
Threshold 3:	***Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?***

❑ Construction Emissions

For purposes of analysis, it is assumed that construction of Phase 1 of the Project would occur in Year 2013 and construction of Phase 2 would occur in the Year 2014. In the event that construction activities occur at a later date, emissions associated with construction vehicle exhaust would be less than disclosed in this subsection as the analysis year increases due to implementation of mandatory regulatory requirements and vehicle fleet turnover contained in the EMFAC 2007 model (Urban Crossroads 2011c 40). The estimated maximum daily construction emissions associated with each phase of Project construction are presented in Table 4.2-8, *Construction-Related Emissions Summary (Pounds per Day)*. Detailed construction-related emissions model outputs are presented in Appendix A of the Air Quality Impact Analysis (*Technical Appendix B1* to this EIR).

As shown, the Project is projected to exceed the SCAQMD regional criteria pollutant threshold for emissions of NO_X during the first phase of construction. In addition, the SCAB does not attain state criteria for NO_X concentrations, as previously presented in Table 4.2-2. In addition, NO_X is a precursor for ozone, and the SCAB is identified as a federal and state non-attainment area for ozone (see Table 4.2-2). Accordingly, the Project's emissions of NO_X during Phase 1 of construction would violate the SCAQMD regional threshold for this pollutant and would result in a considerable net increase of a criteria pollutant for which the Project region is in non-attainment. This impact is evaluated as significant on a direct and cumulative basis and mitigation would be required.

Table 4.2-8 Construction-Related Emissions Summary (Pounds per Day)

YEAR	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
2013	67.03	208.12	103.51	0.22	81.00	15.46
2014	63.50	63.30	83.40	0.16	14.14	4.14
Maximum Daily Emissions	**67.03**	**208.12**	**103.51**	**0.22**	**81.00**	**15.46**
SCAQMD Regional Threshold	75	100	550	150	150	55
Significant?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**

Source: Urban Crossroads 2011a, Table 3-3.

❑ Operational Emissions

Project-related operational emissions are summarized in Table 4.2-9, *Operational Emissions Summary (Pounds per Day)*. Detailed construction-related emissions model outputs are presented in Appendix A of the Air Quality Impact Analysis (*Technical Appendix B1* to this EIR).

As presented in Table 4.2-9, long-term emissions associated with the Project would violate the SCAQMD regional criteria for VOCs and NO_X. Furthermore, the SCAB is a designated non-attainment area for NO_X concentrations and for ozone concentrations (NO_X is a precursor for ozone) as described above. Accordingly, the Project's long-term emissions of NO_X would result in a considerable net increase of a criteria pollutant for which the Project region is in non-attainment (i.e. NO_X and ozone). These impacts are evaluated as significant on a direct and cumulative basis and mitigation would be required.

Emissions of VOC and NO_X are the result of mobile source emissions (vehicles traveling to and from the Project site). The estimation of mobile source emissions are highly speculative and controls for mobile source emissions are not within the purview of the Project Applicant, future tenants of the Project, or the City of Moreno Valley. The on-site area sources of air pollution that are within the direct control of the Project Applicant and future tenants of the Project are below the significance thresholds. To reduce the Project's energy needs and fossil fuel consumption, and thereby reduce air emissions, the Project Applicant has committed to design the Project's buildings using the United States Green Building Council's LEED 2009 "Core and Shell Development Rating System" and meet the minimum requirements to achieve LEED Silver status. Official LEED certification may or may not occur (and is not required by the City of Moreno Valley), but the Project would be designed to meet Silver eligibility requirements. Because the design features are not yet selected, and cannot be precisely determined until tenants are identified and interior space design occurs, it is not possible to calculate the air emission reductions associated with LEED Silver design features at this time. It is unlikely that the significant VOC and NO_X impacts identified above would be substantially reduced because these impacts are primarily caused by mobile source emissions, which are outside of the control of the Project Applicant, future Project tenants, and the City of Moreno Valley. Some reduction of VOC area-source emissions could occur, however, from LEED features.

Table 4.2-9 Operational Emissions Summary (Pounds per Day)

OPERATIONAL ACTIVITIES	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Peak Operational Emissions (Summer)						
Area Source Emissions	35.04	0	0	0	0	0
Energy Source Emissions	0.09	0.85	0.72	0.01	0.06	0.06
Mobile Emissions	75.28	666.74	547.40	1.49	139.91	28.03
Maximum Daily Emissions	**110.41**	**667.59**	**548.12**	**1.50**	**139.91**	**28.03**
SCAQMD Regional Threshold	55	55	550	150	150	55
Significant?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**
Peak Operational Emissions (Winter)						
Area Source Emissions	35.04	0	0	0	0	0
Energy Source Emissions	0.09	0.85	0.72	0.01	0.06	0.06
Mobile Emissions	78.123	707.26	541.59	1.45	140.03	28.15
Maximum Daily Emissions	**113.25**	**708.11**	**542.31**	**1.46**	**140.09**	**28.21**
SCAQMD Regional Threshold	55	55	550	150	150	55
Significant?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

Source: Urban Crossroads 2011a, Table 3-6.

Threshold 4: Would the Project expose sensitive receptors to substantial pollutant concentrations?

During both construction and long-term operation, the Project has the potential to expose nearby sensitive receptors to substantial pollutant concentrations. The following provides an analysis based on the applicable localized significance thresholds established by the State of California and SCAQMD.

❑ Construction-Related Localized Emissions

Table 4.2-10, *Localized Significance Summary – Construction*, presents the estimated localized emissions associated with Project construction. Detailed construction-related localized emissions model outputs are presented in Appendix A of the Air Quality Impact Analysis (*Technical Appendix B1* to this EIR).

As shown in Table 4.2-10, emissions of PM_{10} and $PM_{2.5}$ would exceed localized thresholds for 24-hour concentrations of particulate matter. Accordingly, construction of the Project has the potential to expose nearby sensitive receptors to substantial concentrations of PM_{10} and $PM_{2.5}$, which is evaluated as a significant impact for which mitigation would be required.

❑ Operational Localized Emissions Estimates

- **Criteria Pollutant Emissions**

Table 4.2-11, *Localized Significance Summary – Operations*, presents the results of the long-term localized significance threshold analysis. Detailed operational localized emissions model outputs are presented in Appendix A of the Air Quality Impact Analysis (*Technical Appendix B1* to this EIR).

Table 4.2-10 Localized Significance Summary - Construction

CONSTRUCTION	CO		NO_2	PM_{10}	$PM_{2.5}$
	AVERAGING TIME				
	1-HOUR	8-HOUR	1-HOUR	24-HOURS	
Peak Day Localized Emissions	0.67	0.25	0.06	16.01	12.47
Background Concentration	7	2.1	0.09	--	--
Total Concentration	**7.67**	**2.35**	**0.15**	**16.01**	**12.47**
SCAQMD Localized Significance Threshold	20	9	0.18	10.40	10.40
Significant?	**NO**	**NO**	**NO**	**YES**	**YES**

Note: PM_{10} and $PM_{2.5}$ concentrations are expressed in $\mu g/m^3$. CO and NO_2 concentrations are expressed in ppm.
Source: Urban Crossroads 2011a, Table 3-7

Table 4.2-11 Localized Significance Summary - Operations

OPERATIONS	CO		NO_2	PM_{10}	$PM_{2.5}$
	AVERAGING TIME				
	1-HOUR	8-HOUR	1-HOUR	24-HOURS	
Summer Operations					
Peak Day Localized Emissions	0.02	0.015	0.00329	0.06	0.02
Background Concentration	7	2.1	0.09	--	--
Total Concentration	**7.02**	**2.12**	**0.09**	**0.06**	**0.02**
SCAQMD Localized Significance Threshold	20	9	0.18	2.50	2.50
Significant?	**NO**	**NO**	**NO**	**NO**	**NO**
Winter Operations					
Peak Day Localized Emissions	0.03	0.02	0.00309	0.06	0.03
Background Concentration	7	2.1	0.09	--	--
Total Concentration	**7.03**	**2.12**	**0.09**	**0.06**	**0.03**
SCAQMD Localized Significance Threshold	20	9	0.18	2.50	2.50
Significant?	**NO**	**NO**	**NO**	**NO**	**NO**

Note: PM_{10} and $PM_{2.5}$ concentrations are expressed in $\mu g/m^3$. CO and NO_2 concentrations are expressed in ppm.
Source: Urban Crossroads 2011a, Table 3-9

Results of the analysis indicate that estimated Project-related long-term operational emissions would not exceed localized emissions thresholds established by the SCAQMD. Accordingly, under long-term operating conditions, the proposed Project would not expose any sensitive receptors to substantial Project-related pollutant concentrations. Impacts would be less than significant.

- **Diesel Particulate Emissions**

The proposed Project would generate/attract diesel trucks, which emit diesel particulate matter. Diesel particulate matter is known to be associated with increased hazards to health, including cancer. To evaluate the Project's potential to expose nearby sensitive receptors to substantial amounts of diesel particulate matter during long-term operation, a Mobile Source Health Risk Assessment was prepared for the proposed Project (included as *Technical Appendix B2* to this EIR).

The results of the Mobile Source Health Risk Assessment indicate that diesel particulate emissions generated during operation of the proposed Project would not create a significant health risk to sensitive receptors in the vicinity of the Project site. Detailed air dispersion model outputs and risk calculations are presented in Appendices B and C, respectively, of the Mobile Source Health Risk Assessment (*Technical Appendix B2* to this EIR). At the point of maximum impact, the maximum

increase in cancer risk is estimated to be 4.59 in one million for nearby residents (based on a 70 year exposure rate), 4.62 in one million for employees at the Project site (based on a 40 year exposure rate), and 1.14 in one million for nearby school children (based on a nine (9) year exposure rate). The level of risk fpr each sensitive receptor class (i.e., residents, workers, school children) would not exceed the SCAQMD significance threshold of 10 in one million. Therefore, long-term operation of the Project would not expose any sensitive receptors to substantial concentrations of diesel particulate emissions and impacts would be less than significant.

Threshold 5: Would the Project create objectionable odors affecting a substantial number of people?

Land uses generally associated with odor complaints include:

- Agricultural uses (livestock and farming)
- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

The Project could produce odors during proposed construction activities resulting from construction equipment exhaust, application of asphalt, and/or the application of architectural coatings; however, standard construction practices would minimize the odor emissions and their associated impacts. Furthermore, any odors emitted during construction would be temporary, short-term, and intermittent in nature, and would cease upon the completion of the respective phase of construction. In addition, construction activities on the Project site would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance. Accordingly, the proposed Project would not create objectionable odors affecting a substantial number of people during construction, and short-term impacts are evaluated as less than significant.

During long-term operation, the proposed Project would include light industrial and warehouse distribution land uses, which are not typically associated with objectionable odors. The temporary storage of refuse associated with the proposed Project's long-term operational use could be a source of odor; however, Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations, thereby precluding any potential impact. Furthermore, the proposed Project would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance, during long-term operation. As such, long-term operation of the proposed Project would not create objectionable odors affecting a substantial number of people.

4.2.4 CUMULATIVE IMPACT ANALYSIS

The proposed Project proposes to implement the Moreno Valley General Plan and Moreno Valley Industrial Area Plan land use designations applied to the Project site. As such, the Project would be

consistent with the growth forecasts used in the SCAQMD's AQMP to predict future air quality conditions in the SCAB. Accordingly, emissions that would be generated by the Project are assumed to be accounted for in the AQMP. Accordingly, the Project would not conflict with or obstruct the implementation of the SCAQMD on a cumulative basis.

The City of Moreno Valley General Plan EIR (Moreno Valley 2006 Sec. 5.3) concluded that buildout of the City would result in an unavoidable long-term air quality impact, even with implementation of all state-mandated air quality regulations. As such, there is a cumulative air quality impact identified in the Project's study area. As indicated in the analysis of Thresholds 2 and 3 in Subsection 4.2.3 above, the Project would exceed SCAQMD criteria pollutant standards for emissions of NO_X during construction. Under long-term operation, the Project's emissions of VOCs and NO_X also would exceed the SCAQMD criteria pollutant standards. In addition, the SCAB is classified as being a non-attainment area of ozone, for which NO_X is a precursor, under both federal and state criteria. When considered with emissions that can reasonably be assumed from other development within the cumulative study area, including buildout of the City of Moreno Valley, the Project's construction-related emissions of NO_X and operational emissions of NO_X and VOCs would represent a cumulatively considerable contribution to an existing air quality violation and cumulative impact, requiring mitigation.

Construction of the proposed Project would exceed localized significance thresholds for PM_{10} and $PM_{2.5}$ in the short-term during Phase 1 of the Project's construction activities. Concentrations of particulate matter (PM_{10} and $PM_{2.5}$) could substantially increase if construction activities were to occur simultaneous with construction activities on adjacent properties. Thus, implementation of the Project could expose nearby sensitive receptors to substantial concentrations of criteria pollutants. The Project's localized emissions of particulate matter (PM_{10} and $PM_{2.5}$) during construction are evaluated as cumulatively considerable and mitigation would be required.

Long-term operation of the Project would not exceed localized significance thresholds for any criteria pollutant. In addition, Project-related operational emissions of diesel particulates would not result in significant mobile-source health risks to any nearby sensitive receptors. Under long-term operating conditions, Project emissions would be well below SCAQMD's localized significance and carcinogenic exposure thresholds. Therefore, it is reasonable to conclude that even when combined with localized emissions from future developments within close proximity to the Project site, such emissions would not exceed SCAQMD thresholds. Accordingly, long-term operation of the Project would not expose nearby sensitive receptors to substantial localized pollutant concentrations, and a cumulative considerable impact would not occur.

As indicated in the analysis of Threshold 6 in Subsection 4.2.3 above, there are no components of the proposed Project's construction or long-term operation that would result in the exposure of a substantial number of sensitive receptors to objectionable odors. There also are no odor emitters in the Project's cumulative study area which, when combined with Project-related odors, could affect a substantial number of people. Accordingly, a cumulatively significant impact would not occur.

4.2.5 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Compliance with these measures was assumed throughout the above analysis of air quality impacts.

PR 4.2-1 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 402, "Nuisance."

PR 4.2-2 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust."

PR 4.2-3 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 431.2, "Sulfur Content of Liquid Fuels."

PR 4.2-4 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1113, "Architectural Coatings."

PR 4.2-5 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1186, "PM_{10} Emissions from Paved and Unpaved Roads, and Livestock Operations."

PR 4.2-6 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1186.1, "Less-Polluting Street Sweepers."

PR 4.2-7 The Project is required to comply with California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles."

PR 4.2-8 The Project is required to comply with California Code of Regulations Title 13, Division 3, Chapter 10, Article 1, Section 2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling."

4.2.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: No Impact. The proposed Project would not conflict with or obstruct implementation of the SCAQMD AQMP.

Thresholds 2 and 3: Significant Direct and Cumulative Impact (Short-Term and Long-Term). Emissions during Phase 1 of Project construction would violate the SCAQMD regional threshold for NO_X. In addition, long-term operation of the Project is projected to exceed SCAQMD regional thresholds for VOC and NO_X emissions. Near- and long-term emissions of NO_X also would contribute to an existing air quality violation in the SCAB (i.e., non-attainment status for ozone) because NO_X is a precursor for ozone. As such, Project-related emissions would violate SCAQMD air quality standards and contribute to the non-attainment status of a criteria pollutant (i.e., ozone), and these impacts are evaluated as significant on a direct and cumulative basis.

Threshold 4: Significant Direct and Cumulative Impact (Short-Term). The Project would expose nearby sensitive receptors to substantial concentrations of localized particulate matter (PM_{10} and $PM_{2.5}$) during construction. This impact is evaluated as significant on a direct and cumulative basis. Long-term operation of the Project would not expose nearby sensitive receptors to substantial pollutant concentrations of any criteria pollutant or diesel particulate matter. As such, a less than significant impact would occur during long-term operation of the Project.

Threshold 5: Less than Significant Impact. Although near-term construction activities could produce odors associated with construction equipment exhaust, the application of asphalt, and the application of architectural coatings, standard construction requirements would minimize odor impacts to less than significant levels. Odors associated with long-term operation of the proposed Project would not significantly impact nearby sensitive receptors.

4.2.7 MITIGATION

MM 4.2-1 Prior to grading permit issuance, the City shall verify the following note is included on the grading plan:

"During construction activity, the contractor shall utilize California Air Resources Board (CARB) Tier III certified equipment or better for the following pieces of equipment: Graders, Rubber Tired Dozers, and Scrapers."

MM 4.2-2 Prior to issuance of each grading and building permit, the Project applicant or construction contractor shall prepare an exhibit for review by the City depicting the location of proposed equipment staging areas. The City shall review the proposed location(s) to ensure the staging areas are located at least 300-feet away from sensitive receptors and 1,105 feet from the northeastern corner of the Project site's property boundary as measured from the Iris Avenue right-of-way, as required by Mitigation Measure MM 4.10-1.

MM 4.2-3 The Project applicant shall use "Zero-Volatile Organic Compounds" paints (no more than 150 grams of VOC per liter) and/or High Pressure Low Volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113. Alternatively, the applicant shall use building materials that do not require painting or are pre-painted. Painting products and materials compliant with these requirements shall be noted on building plans.

Although Project-related diesel particulate emissions are evaluated as less than significant on both a direct and cumulative basis, the following mitigation measures have been identified to further reduce the Project's less than significant impact due to diesel particulate emissions. The following mitigation measures shall be made a condition of the Project's approval by the City of Moreno Valley:

MM 4.2-4 Prior to the issuance of each building permit, the City shall ensure that building plans require the placement of signs at truck access gates, loading docks, and truck parking areas to identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes; and 3) telephone numbers of the building facilities manager and the CARB to report violations.

MM 4.2-5 Prior to the issuance of each building permit, the City shall review the parking lot striping and security gating plan to ensure the site design allows adequate truck stacking at gates to prevent queuing of trucks outside the facility.

MM 4.2-6 Prior to the issuance of occupancy permits, the applicant shall provide evidence that a sign has been installed at each exit driveway, providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow.

In addition, Mitigation Measures MM 4.6-1 through MM 4.6-10 in Subsection 4.6, Greenhouse Gas Emissions, and Project Requirements PR 4.11-10 and 4.11-11 in Subsection 4.11, Transportation/ Traffic, also are applicable to the reduction of air quality impacts.

4.2.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Thresholds 2 and 3: Significant Direct and Cumulative Impact. Implementation of Mitigation Measures MM 4.2-1 through MM 4.2-3 and Mitigation Measures MM 4.6-2 and MM 4.6-5 in Section 4.6, Greenhouse Gas Emissions, would reduce Project emissions of NO_X during Phase 1 of construction; however, these emissions would remain above the SCAQMD regional threshold for NO_X. Emissions of NO_X during Phase 1 of Project construction also would cumulatively contribute to an existing air quality violation in the SCAB (i.e., ozone concentrations), as well as cumulatively contribute to the net increase of a criteria air pollutant for which the SCAB is in non-attainment (i.e., federal and state ozone concentrations). Accordingly, the Project's emissions of NO_X during Phase 1 of construction represent a short-term significant and unavoidable impact on both a direct and cumulative basis.

Operational emissions of VOCs and NO_X are projected to remain above regional pollutant thresholds during long-term operation of the Project, primarily from mobile source emissions that are beyond the control of the Project Applicant, future Project tenants and the City of Moreno Valley. The Project Applicant will incorporate design features into the Project to reduce long-term emissions of criteria area pollutants (see Mitigation Measures MM 4.2-4 through MM 4.2-6 and MM 4.6-3 through MM 4.6-10 in Section 4.6, Greenhouse Gas Emissions) to the greatest feasible extent. It is likely that incorporation of these features would reduce the Project's long-term emissions of VOCs and/or NO_X but because specific Project design features pursuant to MM 4.6-3 have not been identified at this time, the Project's Air Quality Impact Analysis (*Technical Appendix B1*) did not take credit for potential emissions reductions that may occur with implementation of such features. As such, it is concluded that the Project's long-term emissions of VOCs and NO_X would directly violate SCAQMD air quality standards. In addition, the Project's long-term emissions of NO_X would cumulatively contribute to an existing air quality violation in the SCAB (i.e., ozone concentrations), as well as cumulatively contribute to the net increase of a criteria air pollutant for which the SCAB is in non-attainment (i.e., federal and state ozone concentrations). Accordingly, the Project's long-term emissions of VOCs and NO_X are evaluated as a significant and unavoidable impact on the Project on both a direct and cumulative basis.

Threshold 4: Less than Significant Impact with Mitigation. Implementation of Mitigation Measures MM 4.2-1 and MM 4.2-2 would reduce localized PM_{10} and $PM_{2.5}$ concentrations below SCAQMD significance thresholds. Accordingly, with implementation of Mitigation Measures MM 4.2-1, MM 4.2-2, and MM 4.6-2, impacts to sensitive receptors associated with the proposed Project-related construction emissions would be reduced to below a level of significance.

4.3 BIOLOGICAL RESOURCES

This subsection assesses the Project's potential to impact sensitive biological resources that may be present on site or within off-site improvement areas. As previously described in EIR Section 3.0, *Project Description*, off-site improvement areas associated with the proposed Project include a portion of the Perris Valley Channel and an approximately 1,400 linear foot segment of Heacock Street located south of the Project site. The analysis in this subsection is based in part on information contained in a site-specific technical report titled, "Biological Technical Report for the March Business Center Project," prepared by Glenn Lukos Associates, Inc., and dated September 12, 2011. This report is provided as *Technical Appendix C* to this EIR. The Biological Technical Report also includes a Focused Burrowing Owl Survey, Jurisdictional Delineation Report, and Jurisdictional Delineation Impact Analysis, which are provided as Appendices C, D, and E (respectively) to the Biological Technical Report (and are included within *Technical Appendix C* to this EIR).

4.3.1 EXISTING CONDITIONS

A. Scope and Methodology

❑ Scope and Methodology for the General Biological Resources Assessment

Biologists/Regulatory Specialists from Glenn Lukos Associates, Inc. (GLA) conducted site-specific biological surveys, including focused burrowing owl surveys, of the Project site and in the Project's off-site improvement areas on April 6, May 13, May 23, June 30, July 25, August 1 and August 4, 2011. Methods of study also included a review of relevant literature and a Geographical Information System (GIS)-based impact analysis. GLA assessed resources within the Project's impact areas using methodologies and accepted scientific and technical standards and survey guideline requirements issued by the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Game (CDFG), the California Native Plant Society (CNPS), and the Western Riverside County MSHCP (GLA 2011 1-2).

The field studies also focused on a number of primary objectives that would satisfy the special provisions of the MSHCP and also comply with CEQA requirements, including: (1) general reconnaissance surveys and vegetation mapping; (2) general wildlife surveys; (3) habitat assessments and surveys for special-status plants (including species with applicable MSHCP survey requirements; (4) habitat assessments and focused surveys for special-status animals (including species with applicable MSHCP survey requirements); and (5) assessments for areas subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps) jurisdiction pursuant to Section 404 of the Clean Water Act, and CDFG jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the California Fish and Game Code. Observations of plant and wildlife species were recorded during each of the above mentioned survey efforts (GLA 2011 2).

Please refer to the Biological Technical Report (*Technical Appendix C* Section 2.0) for a detailed description of the scope and methodology used for the general biological resources assessment.

❑ Jurisdictional Delineation Scope and Methodology

In addition to field surveys conducted for the general biological assessment, regulatory specialists of GLA examined the Project site and off-site improvement areas on March 1 and 16, 2011, to determine the limits of (1) Corps jurisdiction pursuant to Section 404 of the Clean Water Act (CWA), (2) Regional Water Quality Control Board (RWQCB) jurisdiction pursuant to Section 401 of the

CWA and Section 13260 of the California Water Code (CWC), and (3) CDFG jurisdiction pursuant to Division 2, Chapter 6, Sections 1600-1616 of the Fish and Game Code (GLA 2011 Appdx D 1-2).

Prior to beginning the field delineation a 200-scale color aerial photograph, a 200-scale topographic base map of the property, and a USGS topographic map were examined to determine the locations of potential areas of Corps, RWQCB, and CDFG jurisdiction. Suspected jurisdictional areas were field checked for the presence of definable channels and/or wetland vegetation, soils and hydrology. Suspected wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual (Wetland Manual) and the 2008 Regional Supplement to the Corps Wetland Delineation Manual: Arid West Region Version 2.0 (Arid West Supplement). Lateral limits of non-wetland waters were identified using field indicators of an Ordinary High Water Mark (OHWM). While in the field, jurisdiction areas were recorded onto a 200-scale color aerial photograph using visible landmarks. Other data were recorded onto wetland data sheets (GLA 2011 Appdx D 2).

B. Existing Vegetation Communities

Two vegetation/land use types are present on the Project Site; ruderal and disturbed/developed. Table 4.3-1, *Summary of Vegetation Types/Land Uses*, provides a summary of vegetation acreages for the proposed Project Site. Figure 4.3-1, *Vegetation Map*, provides a vegetation map for the Project site. A detailed description of each vegetation/land use type is provided below (GLA 2011 21).

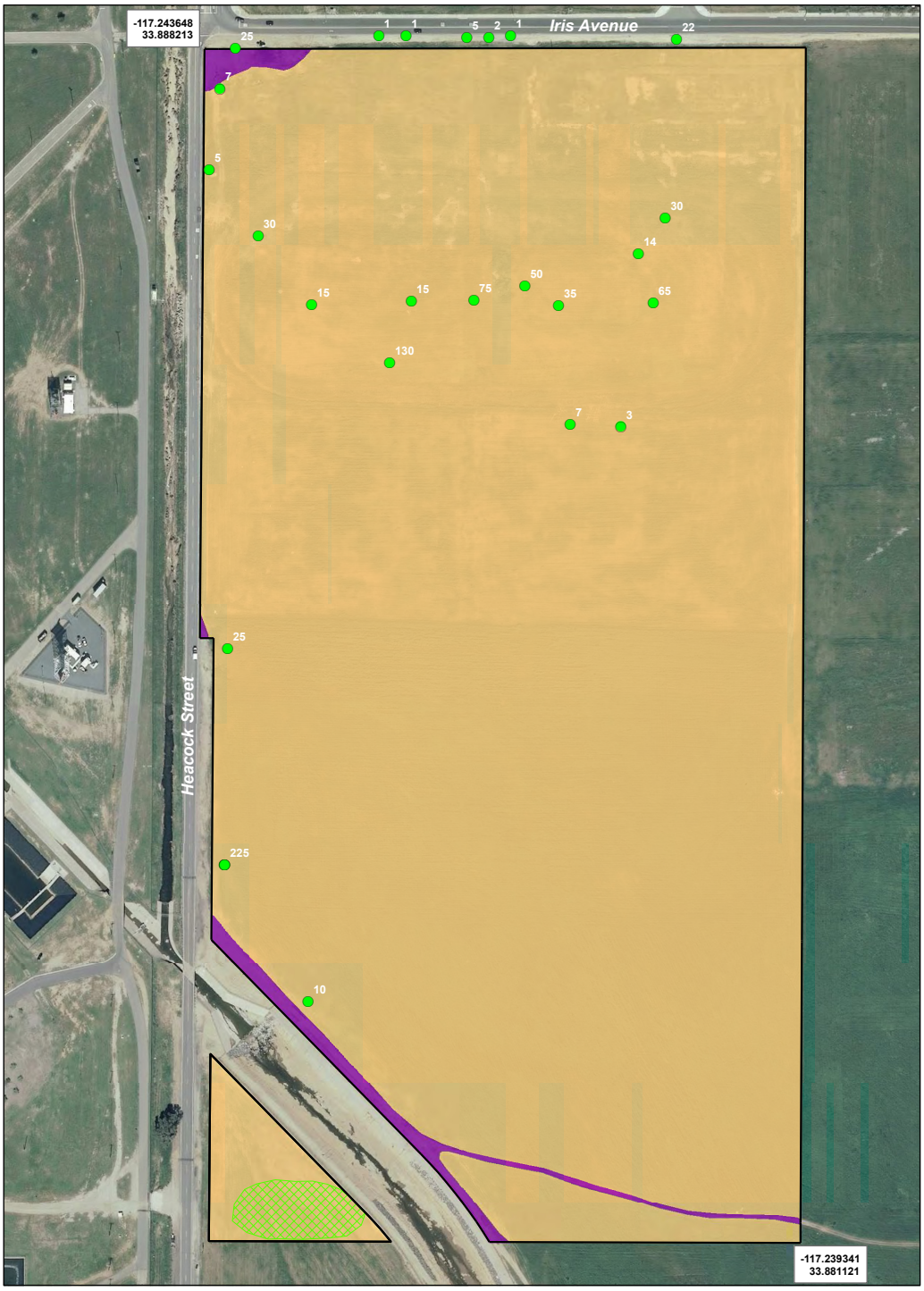
Table 4.3-1 Summary of Vegetation Types/Land Uses

VEGETATION	ACREAGE
Ruderal	73.96
Disturbed/Developed	1.09
Total	**75.05**

Source: GLA 2011, Table 4-1.

- **Ruderal Areas**. The majority of the Project site consists of fallow fields that are disked/mowed on an annual basis, and supports a predominance of ruderal vegetation and annual grasses, both of which are suited to disturbed sites. Common vegetation identified on site includes summer mustard (*Brassica geniculata*), common goldfields (*Lasthenia californica*), common fiddleneck (*Amsinkia menziessii* var. *intermedia*), cultivated barley (*Hordeum vulgare*), wild oat (*Avena fatua*), red brome (*Bromus madritensis* ssp. rubens), and Russian thistle (*Salsola tragus*).

- **Disturbed**. Approximately 1.09 acres of the Project site consists of disturbed areas, including a dirt access road that cuts through the southern portion of the site, and bare areas along Iris Avenue.



Source: Glenn Lukos (09-15-11)

Not to Scale

FIGURE 4.3-1
Vegetation Map

C. *Special Status Plants*

The Project site was evaluated for the presence of special status plant species. The Biological Technical Report (*Technical Appendix C* Table 4-2) provides a list of the special-status plants there evaluated for potential occurrence on the Project site. Plant species were considered based on a number of factors, including: 1) species identified by the California Natural Diversity Database (CNDDB) as occurring (either currently or historically) on or in the vicinity of the Project site, 2) Western Riverside County MSHCP survey areas, and 3) any other special-status plants that are known to occur within the vicinity of the property, or for which potentially suitable habitat occurs on the Project site.

❑ Narrow Endemic and Criteria Area Plants

The Project site does not occur within the Western Riverside County MSHCP Narrow Endemic Plant Species Survey Area (NEPSSA) or Criteria Area Plant Species Survey Area (CAPSSA). Therefore, there is no requirement per the MSHCP to conduct focused surveys for any of the NEPPSA or CAPSSA target species on the Project site (GLA 2011 24).

❑ Special-Status Plants Observed On Site

During biological surveys, one special-status plant (smooth tarplant, *Centromadia pungens* ssp. *laevis*) was detected on the site, as shown on Figure 4.3-1. However, due to routine disking of the site for required fire fuel management, it was not possible for GLA biologists to accurately determine the size of the population (GLA 2011 21). Smooth tarplant is a CNPS List 1B.1 species and is a CAPSSA species under the MSHCP. However, the Project site is not within any of the MSHCP survey areas for Criteria Area Plants. As such, there are no avoidance and/or mitigation requirements for the smooth tarplant if the species is found to occur on the property and would be impacted. Impacts to the smooth tarplant are covered and mitigated for through the Project's participation in and compliance with the Western Riverside County MSHCP (GLA 2011 24).

D. *Special-Status Animals*

The Project site was evaluated for the presence of special status animal species. The Biological Technical Report (*Technical Appendix C* Table 4-3) provides a list of special-status animals that were evaluated for their potential to occur on the Project site, including MSHCP Covered Species with additional survey requirements. Species were evaluated based on a number of factors, including: 1) species identified by the CNDDB as occurring (either currently or historically) on or in the vicinity of the property, 2) MSHCP species survey areas applicable to the property, and 3) any other special-status animals that are known to occur within the vicinity of the property, or for which potentially suitable habitat occurs on the site.

❑ Special-Status Animals Observed On Site

Two special-status animals were detected within the Project site during the biological field surveys, including the western burrowing owl (*Athene cunicularia hypugaea*) and the California horned lark (*Eremophila alpestris actia*). These two species, as well as other species that have the potential to occur but that were not detected during field surveys, are discussed below.

- *Burrowing Owl (Athene cunicularia hypugaea)*

The Biological Technical Report (*Technical Appendix C* 28-30) provides a detailed description of the borrowing owl species. In summary, the burrowing owl is designated as a CDFG California Species of Special Concern. It breeds from southern provinces of Canada, south through eastern Washington, central Oregon, and California to Baja California, east to western Minnesota, northwestern Iowa, eastern Nebraska, central Kansas, Oklahoma, eastern Texas, and Louisiana, and south to central Mexico. The winter range is much the same as the breeding range, except that most burrowing owls apparently vacate the northern areas of the Great Plains and Great Basin in the winter. The burrowing owl winters south regularly to El Salvador.

In California, burrowing owls are restricted to the central valley extending from Redding south to the Grapevine, east through the Mojave Desert and west to San Jose, the San Francisco Bay area, the outer coastal foothills area which extend from Monterey south to San Diego and the Sonoran desert. It is a resident in the open areas of the lowlands over much of the Southern California region.

The burrowing owl occurs in shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), prairies, coastal dunes, desert floors, and some artificial, open areas as a year-long resident. They may also use areas such as, but not limited to, golf courses, cemeteries, road allowances within developed areas, airports, vacant lots, fairgrounds, abandoned buildings, and irrigation ditches. They require large open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small mammal burrows. As a critical habitat feature need, they require the use of rodent or other burrows for roosting and nesting cover. They may also dig their own burrow in soft, friable soil (as found in Florida) and may also use pipes, culverts, and nest boxes where burrows are scarce. The mammal burrows are modified and enlarged. One burrow is typically selected for use as the nest; however, satellite burrows are usually found within the immediate vicinity of the nest burrow within the defended territory of the owl.

One burrowing owl family group (including at least four juveniles) was detected on the Project site during field surveys. The family group was first detected on July 28, 2011 by GLA biologists while mapping smooth tarplant. Four burrowing owls were observed at a single burrow (western burrow) located approximately 88 meters (290 feet) east of Heacock Street and 55 meters (180 feet) south of Iris Avenue. Two more burrowing owls were detected at a burrow complex comprised of four burrows located approximately 134 meters (440 feet) south of Iris Avenue at the eastern property boundary (GLA 2011 29). Figure 4.3-2, *Burrowing Owl Location Map*, depicts the locations of the burrowing owls that were observed on site.

During the fourth focused owl survey (August 1, 2011), one adult and one juvenile burrowing owl were detected at the western burrow, and one juvenile owl was detected at the eastern burrow complex. The adult owl (presumably male based on appearance) appeared to have a USFWS aluminum band and green color band on its left leg. Because the burrowing owls were detected late in the breeding season, a fifth focused survey was conducted on August 4, 2011. During the August 4th survey, the banded adult and three juveniles were detected at the western burrow, and one juvenile was briefly detected at the eastern burrow complex (GLA 2011 29).

The western burrow complex is comprised of a single large (one-foot wide) excavated burrow. The burrow and adjacent area exhibited evidence of burrowing owl occupation including cast pellets; however, there was no indication of nesting material at or near the burrow entrance. Although the

entrances to the burrows are larger than ground squirrel burrows, the two areas are extremely difficult to see from ground level (GLA 2011 29-30).

The eastern burrow complex is composed of four burrows that are located immediately adjacent to the eastern property boundary. Three of the burrows appear to have been excavated by ground squirrels or rabbits. Three of the four burrows exhibited owl sign including cast pellets and feathers. Although there was no sign of nesting material at or near the burrow entrances, it is probable that a burrowing owl pair nested at this complex based on the amount of pellets and feathers (GLA 2011 30).

- *California Horned Lark (Eremophila alpestris actia)*

The Biological Technical Report (*Technical Appendix C* 30) provides a detailed description of the California horned lark. In summary, the species does not have a federal or state designation; however this species is on the State Watch List. Additionally, the California horned lark is a covered species under the MSHCP. The horned lark has a holarctic distribution, ranging from the Arctic south to central Asia and Mexico with outlying populations in Morocco and Colombia. In general, the northernmost populations are migratory, moving south during the winter into remaining areas of the breeding range.

The California horned lark is a common to abundant resident in a variety of open habitats, usually where trees and large shrubs are absent. Range-wide, California horned larks breed in level or gently sloping shortgrass prairie, montane meadows, "bald" hills, open coastal plains, fallow grain fields, and alkali flats. Within Southern California, California horned larks breed primarily in open fields, (short) grasslands, and rangelands. Grasses, shrubs, forbs, rocks, litter, clods of soil, and other surface irregularities provide cover.

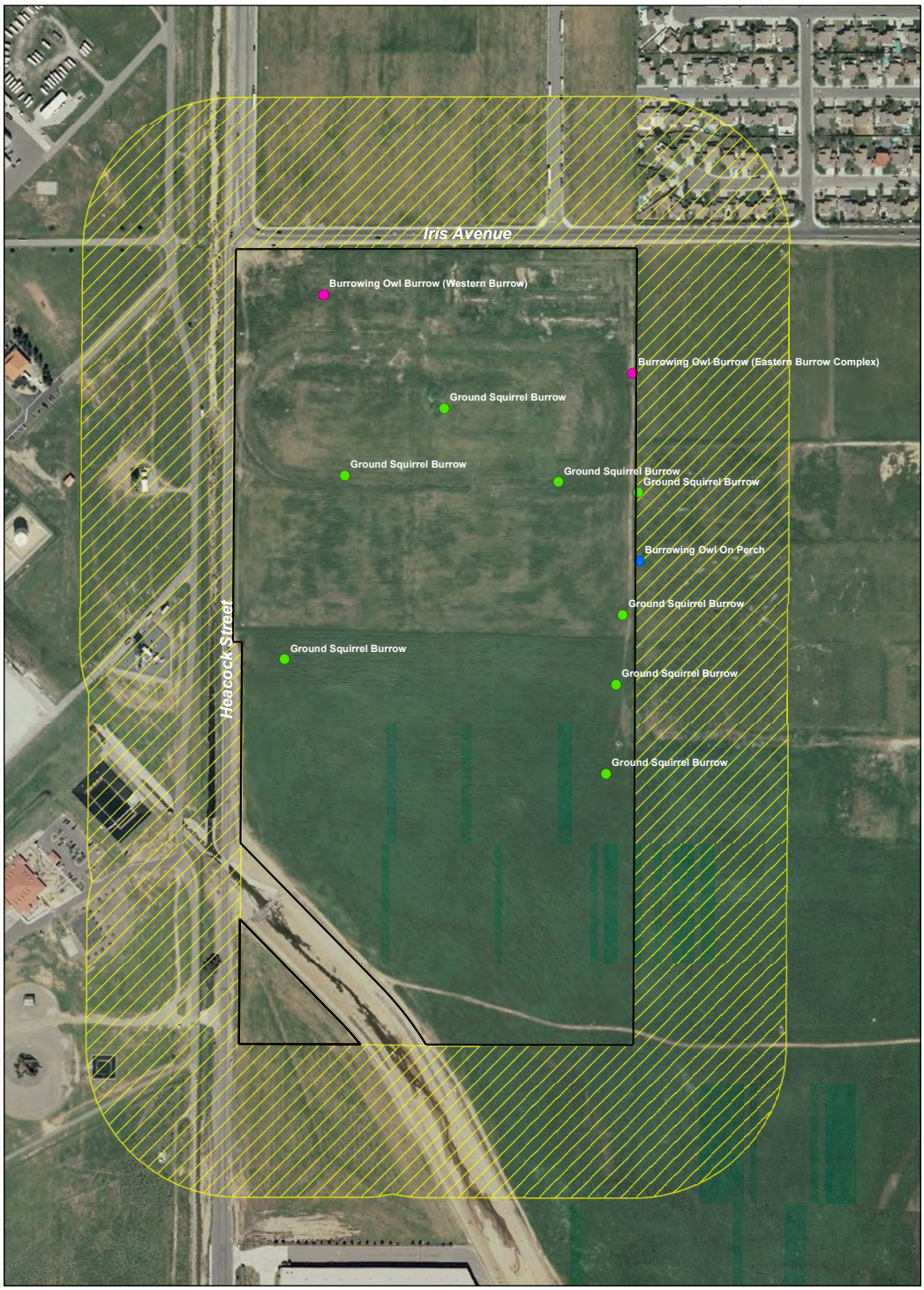
During habitat assessments conducted on the Project site, the California horned was observed in the ruderal/disked areas of the property. The California horned lark is a MSHCP covered species, indicating that any impacts to this species are covered by the MSHCP and mitigation for such impacts would not be required (GLA 2011 30).

❑ Special-Status Animals with a Potential to Occur On Site

Other special-status animals have some potential to occur at the Project site, but were not observed during biological surveys. These include the coastal western whiptail, orange-throated whiptail, ferruginous hawk, loggerhead shrike, and the San Diego black tailed jackrabbit. Refer to the Biological Technical Report (*Technical Appendix C* Sec. 4.3.2) for a detailed description of these species and their habitats.

E. Nesting Birds

The Project site supports low to medium height herbaceous vegetation with the potential to support nesting birds. Although no migratory birds were observed on the property, there is a potential that migratory bird species could use the property (GLA 2011 34). The Migratory Bird Treaty Act (MBTA) and CDFG Code prohibit impacts to nesting birds.



Source: Glenn Lukos (09-15-11)

Not to Scale

FIGURE 4.3-2
Burrowing Owl Location Map

F. Raptor Foraging Habitat

The Project site consists mostly of flat open fields with low-growing ruderal vegetation and annual grasses that can be utilized by raptors for foraging. There are no nesting opportunities for raptors on the site (GLA 2011 34).

G. MSHCP Riparian/Riverine Areas and Vernal Pools

The proposed Project includes an off-site impact area within the adjacent Perris Valley Channel, where the Project proposes to install a drainage outlet. This off-site area includes approximately 95 linear feet of the Channel, of which approximately 0.05 acre is considered to be a MSHCP riverine area, but does not support any riparian/wetland vegetation (GLA 2011 34). The Project site does not contain any MSHCP vernal pools.

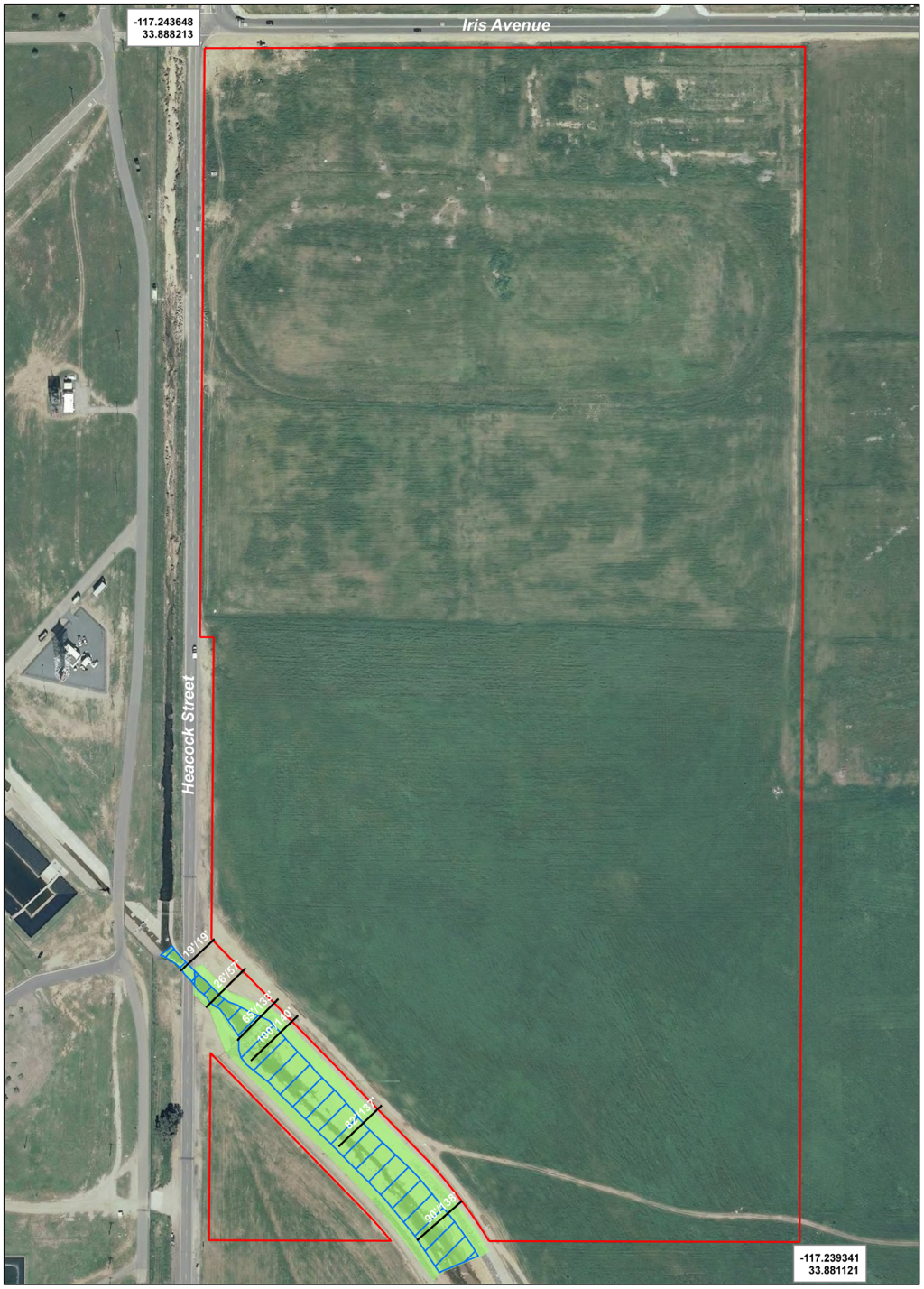
H. Jurisdictional Waters

The off-site Perris Valley Channel contains areas within the jurisdictions of the Corps, CDFG, and the RWQCB. The Project's off-site impact area in the Channel to install drainage outlets (totaling 95 linear feet) contains approximately 0.05 acre of Corps and RWQCB jurisdiction, none of which supports jurisdictional wetlands, and 0.07 acre of CDFG jurisdiction (GLA 2011 34). Figure 4.3-3, *Jurisdictional Delineation Map*, depicts the locations of the jurisdictional areas on site, which also are described below.

❑ Corps Jurisdiction

Corps jurisdiction within the off-site Channel that bisects the Project site totals 1.57 acres, none of which consists of jurisdictional wetlands, and includes 940 linear feet of ephemeral streambed. There is no Corps jurisdiction within the Project site and outside of the Channel. The Channel is an improved, ephemeral drainage feature, which accepts urban runoff from areas around March ARB and in the City of Moreno Valley (GLA 2011 Appdx D 12).

The segment of the Channel that bisects the Project site enters the study area from an existing culvert/bridge beneath Heacock Street along the western Project boundary and flows from north/ northwest to southeast for 940 linear feet as it bisects the property. The Channel ultimately discharges into the San Jacinto River, which is a tributary to Canyon Lake. Canyon Lake is a tributary to the downstream segment of the San Jacinto River, which in turn is a tributary of Lake Elsinore. Lake Elsinore empties into Alberhill Creek/Temescal Wash, which is a tributary of the Santa Ana River, which ultimately discharges to the Pacific Ocean, a Traditional Navigable Water (TNW). The Perris Valley Channel is an incised, somewhat improved, flood control channel with partially improved side slopes and a soft-bottom channel. The Channel supports an OHWM ranging in width from 19 to 100 feet and is evidenced by water marks, presence of litter and debris, changes in soil characteristics, wracking, and shelving. No vegetation is present within the Channel under existing conditions; therefore, no delineation data pits were necessary as no potential wetland areas are present (GLA 2011 Appx D 12).



Source: Glenn Lukos (09-15-11)

Not to Scale

FIGURE 4.3-3
Jurisdictional Delineation Map

❑ Regional Water Quality Control Board Jurisdiction

The Perris Valley Channel is a Corps jurisdictional water subject to regulation pursuant to Section 401 and 404 of the CWA and does not need to be addressed separately by the RWQCB pursuant to Section 13260 of the CWC (i.e., the Porter-Cologne Act) (GLA 2011 Appdx D 12).

❑ CDFG Jurisdiction

CDFG jurisdiction associated with the segment of the Perris Valley Channel that bisects the Project site totals 2.51 acres, none of which consists of vegetated riparian habitat, and includes 940 linear feet of ephemeral streambed. No areas of CDFG jurisdiction are present on the Project site and outside the limits of the Channel.

I. Regulatory Setting

The proposed Project is subject to state and federal regulations associated with a number of regulatory programs. These programs often overlap and were developed to protect natural resources, including: state and federally listed plants and animals; aquatic resources including rivers and creeks, ephemeral streambeds, wetlands, and areas of riparian habitat; other special-status species which are not listed as threatened or endangered by the state or federal governments; and other special-status vegetation communities. Provided below is an overview of the federal, state, and regional laws, regulations, and requirements that apply to the proposed Project. For more information, refer to *Technical Appendix C.*

❑ State and/or Federally Listed Plants and Animals

- *State of California Endangered Species Act*

California's Endangered Species Act (CESA) provides definitions for endangered species, threatened species, and candidate species of California. Listed endangered and threatened species are protected by the CESA and candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Article 3, Sections 2080 through 2085, of the CESA addresses the taking of threatened, endangered, or candidate species by stating "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided." Under the CESA, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require permits or memoranda of understanding and can be authorized for endangered species, threatened species, or candidate species for scientific, educational, or management purposes and for take incidental to otherwise lawful activities. Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

- *Federal Endangered Species Act*

The Federal Endangered Species Act of 1973 provides definitions for endangered species and threatened species of the U.S. Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to "take" any listed species. "Take" is defined in Section 3(18) of FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification that result in injury to, or death of species as forms of "take." These

interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a federal agency for an action that could affect a federally listed plant and animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

- *State and Federal Take Authorizations for Listed Species*

Federal or state authorizations of impacts to or incidental take of a listed species by a private individual or other private entity would be granted in one of the following ways:

- Section 7 of the FESA stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat. 16 U.S.C. 1536(a)(2).
- In 1982, the FESA was amended to give private landowners the ability to develop Habitat Conservation Plans (HCPs) pursuant to Section 10(a) of the FESA. Upon development of an HCP, the USFWS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.
- Sections 2090-2097 of the California Endangered Species Act (CESA) require that the state lead agency consult with CDFG on projects with potential impacts on state-listed species. These provisions also require CDFG to coordinate consultations with USFWS for actions involving federally listed as well as state-listed species. In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFG to adopt the federal incidental take statement or the 10(a) permit as its own based on its findings that the federal permit adequately protects the species under state law.

- *Take Authorizations Pursuant to the MSHCP*

The Western Riverside County MSHCP, a regional HCP, was adopted on June 17, 2003, and an Implementing Agreement (IA) was executed between the USFWS, CDFG, and participating entities. The intent of the MSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. As such, the MSHCP is intended to streamline review of individual projects with respect to the species and habitats addressed in the MSHCP, and to provide for an overall Conservation Area that would be of greater benefit to biological resources than would result from a piecemeal regulatory approach. The MSHCP provides coverage (including take authorization for listed species) for special-status plant and animal species, as well as mitigation for impacts to sensitive species.

Through agreements with the USFWS) and the CDFG, the MSHCP designates 146 special-status animal and plant species that receive some level of coverage under the plan. Of the 146 "Covered Species" designated under the MSHCP, the majority of these species have no additional survey/conservation requirements. In addition, through project participation with the MSHCP, the MSHCP provides mitigation for project-specific impacts to Covered Species so that the impacts

would be reduced to below a level of significance pursuant to CEQA. As noted above, project-specific survey requirements exist for species designated as "Covered Species not yet adequately conserved" (Volume I, Section 6.1.2 of the MSHCP document). As the MSHCP's survey requirements relate to the Project site, surveys are required on the Project site for the western burrowing owl.

❑ Regulations Related to Jurisdictional Waters and Wetlands

- *Army Corps of Engineers*

Pursuant to Section 404 of the CWA, the Corps regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in Corps regulations at 33 CFR Part 328.3(a). In the absence of wetlands, the limits of Corps jurisdiction in non-tidal waters, such as intermittent streams, extend to the OHWM which is defined at 33 CFR 328.3(e). Two decisions that have clarified the definition of Corps jurisdiction are "Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al." and "Rapanos v. United States and Carabell v. United States," which are summarized in the Biological Technical Report. For more information, refer to Appendix D to the Biological Technical Report (*Technical Appendix C* to this EIR).

Corps Preliminary Jurisdictional Determination

A *Corps Preliminary Jurisdictional Determination Form* may be used to concede Corps jurisdiction where all streambeds within a project area are considered Corps jurisdictional waters. The project would be able to move forward pursuant to Corps Regulatory Guidance Letter (RGL) 08-02, issued on June 26, 2008, which allows the Corps to issue preliminary jurisdictional determinations (Preliminary JD) for a project. A Preliminary JD allows a project to move forward by setting aside/voluntarily waiving questions regarding CWA jurisdiction over drainages on site in the interest of allowing expeditiously obtaining a Section 404 Permit.

As stated in RGL 08-02:

> *While a landowner, permit applicant, or other affected party can elect to request and obtain an approved JD, he or she can also decline to request an approved JD, and instead obtain a Corps individual or general permit authorization based on either a preliminary JD, or, in appropriate circumstances (such as authorizations by non-reporting nationwide general permits), no JD whatsoever. The Corps will determine what form of JD is appropriate for any particular circumstance based on all the relevant factors, to include, but not limited to, the applicant's preference, what kind of permit authorization is being used (individual permit versus general permit), and the nature of the proposed activity needing authorization.*

A copy of the Corps' Preliminary JD form for the Project site is attached as Appendix A to the Jurisdictional Delineation report contained within Appendix D to the Biological Technical Report (*Technical Appendix C* to this EIR).

Wetlands Definition Pursuant to Section 404 of the Clean Water Act

The term "wetlands" (a subset of "waters of the United States") is defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987 the Corps published a manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the 1987 Wetland Delineation Manual and the Arid West Supplement generally require that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the manual and Supplement provide great detail in methodology and allow for varying special conditions, a wetland should normally meet each of the following three criteria:

- More than 50% of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the National List of Plant Species that Occur in Wetlands);
- Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and
- Whereas the 1987 Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least 5% of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative criteria with the exception for areas with "problematic hydrophytic vegetation", which require a minimum of 14 days of ponding to be considered a wetland.

- *Regional Water Quality Control Board*

Section 13260 of the CWC (i.e., the Porter-Cologne Act)

Clean Water Act Section 401 requires federal agencies to obtain a Water Quality Certification from the Regional Water Quality Control Board before issuing permits that would result in increased pollutant loads to a water body. A Section 401 certification can be issued only if increased pollutant loads would not cause or contribute to exceedances of water quality standards. Subsequent to the decision in "Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.," the Chief Counsel for the State Water Resources Control Board issued a memorandum that addressed the effects of that decision on the Section 401 Water Quality Certification Program.

> *California's right and duty to evaluate certification requests under section 401 is pendant to (or dependent upon) a valid application for a section 404 permit from the Corps, or another application for a federal license or permit. Thus if the Corps determines that the water body in question is not subject to regulation under the COE's 404 program, for instance, no application for 401 certification will be required…*

For more information about the memorandum, refer to Appendix D to the Biological Technical Report, (*Technical Appendix C* to this EIR).

- *California Department of Fish and Game*

Pursuant to Division 2, Chapter 6, Section 1602 of the California Fish and Game Code, the CDFG regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. CDFG jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife. The CDFG Legal Advisor has prepared the following opinion:

- Natural waterways that have been subsequently modified and which have the potential to contain fish, aquatic insects and riparian vegetation will be treated like natural waterways...
- Artificial waterways that have acquired the physical attributes of natural stream courses and which have been viewed by the community as natural stream courses, should be treated by [CDFG] as natural waterways...
- Artificial waterways without the attributes of natural waterways should generally not be subject to Fish and Game Code provisions...

Thus, CDFG jurisdictional limits closely mirror those of the Corps. Exceptions are CDFG's exclusion of isolated wetlands (those not associated with a river, stream, or lake), the addition of artificial stock ponds and irrigation ditches constructed on uplands, and the addition of riparian habitat supported by a river, stream, or lake regardless of the riparian area's federal wetland status.

4.3.2 BASIS FOR DETERMINING SIGNIFICANCE

Environmental impacts to biological resources are assessed using impact significance threshold criteria, which reflect the policy statement contained in CEQA, §21001(c) of the California Public Resources Code. Accordingly, the State Legislature has established it to be the policy of the State of California to:

> *"Prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities..."*

In the development of thresholds of significance for impacts to biological resources, CEQA provides guidance primarily in §15065, Mandatory Findings of Significance, and the CEQA Guidelines, Appendix G, Environmental Checklist Form. CEQA Guidelines §15065(a) states that a project may have a significant effect where:

> *"The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, reduce the number or restrict the range of an endangered, rare, or threatened species, ..."*

Therefore, for the purpose of analysis in this EIR, the proposed Project would result in a significant impact to biological resources if the Project or any Project-related component would:

1. *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional*

plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service;

2. *Have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U. S. Wildlife Service;*

3. *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;*

4. *Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites;*

5. *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or*

6. *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or state habitat conservation plan.*

4.3.3 IMPACT ANALYSIS

Threshold 1:	***Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?***

- *Impacts to Vegetation/Land Use Types*

As indicated previously in Table 4.3-1, the Project site consists only of Ruderal and Disturbed/Developed habitat. Neither of these habitat types is considered habitat for any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations (GLA 2011 37). As such, Project impacts to 73.96 acres of Ruderal habitat and 1.09 acre of Disturbed/Developed habitat would be less than significant and mitigation would not be required.

- *Impacts to Special-Status Plants*

The proposed Project would impact one special-status plant (smooth tarplant) by removal of the species from the Project site. Although the smooth tarplant is a MSHCP Criteria Area Plant, the Project site does not occur within the CAPSSA; therefore, there are no avoidance or mitigation requirements applicable to the smooth tarplant population on the Project pursuant to the MSHCP (GLA 2011 37). Impacts to smooth tarplant are potentially significant, but are reduced to below a level of significance with the Project's mandatory participation and compliance with the MSHCP.

- *Impacts to Special-Status Animals*

The Project has the potential to impact special-status animals. The Project would eliminate actual or potential live-in habitat for the burrowing owl, California horned lark, coastal western whiptail, orange-throated whiptail, and the San Diego black-tailed jackrabbit. In addition, the Project would eliminate foraging habitat on the Project site for the loggerhead shrike, ferruginous hawk, and other

raptors. Impacts to special-status animals are potentially significant; however, only the burrowing owl has project-specific mitigation requirements pursuant to the MSHCP (GLA 2011 37). Impacts to the California horned lark, coastal western whiptail, orange-throated whiptail, San Diego black-tailed jackrabbit, loggerhead shrike, ferruginous hawk, and other raptors would be less than significant as there are no avoidance or mitigation requirements specified by the MSHCP that would apply to the proposed Project, and because adequate habitat for the long-term conservation of these species would be provided through implementation of the MSHCP Conservation Areas. The Project's impacts to these species would be reduced to below a level of significance with the Project's mandatory participation and compliance with the MSHCP.

Objective 5 of the MSHCP species-specific conservation objectives for the burrowing owl states that for sites that are outside of the Criteria Area (such as the proposed Project site), at least 90% of the area with long-term conservation value shall be conserved on site if the site (including adjacent areas) supports three or more pairs of burrowing owls, supports greater than 35 acres of suitable habitat, and is non-contiguous with MSHCP Conservation Area lands. The Project site is not located within the Criteria Area and does support three or more pairs of burrowing owls; thus, the 90-percent conservation requirement does not apply to the Project and burrowing owls may be relocated from the site pursuant to MSHCP Objectives 5 and 6 (GLA 2011 37). A significant impact could occur if burrowing owls located on the Project site are not relocated pursuant to MSHCP Objectives 5 and 6 for this species. Project impacts to burrowing owls that may be present on the site prior to grading of the Project site for development represents a significant impact for which mitigation would be required.

- *Impacts to Nesting Birds*

Vegetation clearing and grading associated with the Project has the potential to impact nesting birds if these activities are conducted during the nesting season (GLA 2011 38). Impacts to nesting birds, including burrowing owls, are prohibited by the Migratory Bird Treaty Act and California Fish and Game Code, and therefore represent potentially significant impacts for which mitigation would be required.

- *Indirect Impacts to Special-Status Biological Resources*

The Project would not result in significant indirect impacts to special-status biological resources. The Project is not located adjacent to the MSHCP Conservation Area; therefore, the Project is not required to implement measures pursuant to the MSHCP Urban Wildland Interface Guidelines specified in Volume I, Section 6.1.4 of the MSHCP (GLA 2011 38). There are no other components of the proposed Project that could indirectly impact special status biological resources. Accordingly, a significant indirect impact to candidate, sensitive, or special status species would not occur.

Threshold 2:	***Would the Project have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Wildlife Service?***

Off-site improvements within the Parris Valley Storm Drain Channel proposed as part of the Project would impact 0.05 acre of Corps jurisdiction, none of which consists of jurisdictional USFWS wetlands; 0.05 acre of RWQCB jurisdiction, none of which consists of jurisdictional wetlands; and

would result in permanent impacts to 0.06 acre of CDFG jurisdiction, none of which contains vegetated riparian habitat (GLA 2011 38).

Of these areas subject to impact, approximately 0.05-acre is classified as unvegetated MSHCP riverine areas. *Volume 1, Section 6.1.2* of the MSHCP states that unavoidable impacts to MSHCP Riverine Areas shall be mitigated such that the lost functions and values as they relate to Covered Species are replaced as set forth under the Determination of Biologically Equivalent or Superior Preservation (DBESP) requirements. However, the Project's minor impact (0.05-acre) to unvegetated streambed would not result in a loss of functions and values as it relates to MSHCP Covered Species. As such, Project impacts to 0.05 acre of MSHCP riverine areas represents a less than significant impact that is not subject to the DBESP requirements; accordingly, the impact would be less than significant and mitigation would not be required (GLA 2011 38). Project impacts to jurisdictional areas are discussed below.

- *U.S. Army Corps of Engineers Jurisdiction*

The segment of the Perris Valley Channel that bisects the Project site contains 1.57 acres of Corps jurisdiction, none of which consists of jurisdictional wetlands, and 940 linear feet of streambed. The proposed Project would permanently impact 0.05-acre of Corps jurisdiction, none of which consists of jurisdictional wetlands (GLA 2011 38). A total of a 95 linear feet of streambed would be permanently disturbed. Table 4.3-2, *Permanent Impacts to Corps Jurisdiction*, depicts permanent impacts to Corps jurisdiction, while Figure 4.3-4, *Jurisdictional Impact*, graphically depicts the location and extent of impacts to Corps jurisdictional areas. Project impacts to 0.05-acre of Corps jurisdictional areas (95 linear feet) would require the issuance of a Section 404 permit from the Corps, which is identified as a Project Requirement in Subsection 4.3.5. There would be no adverse effects on any riparian habitat or other sensitive natural community regulated by the Corps.

Table 4.3-2 Permanent Impacts to Corps Jurisdiction

DRAINAGE FEATURE(S)	TOTAL CORPS JURISDICTION (ACRES)	LENGTH OF DRAINAGE (FEET)	TOTAL PERMANENT IMPACTS TO CORPS JURISDICTION (ACRES)	LINEAR-FOOT IMPACTS (FEET)
Perris Valley Channel	1.57	940	0.05	95
Total	**1.57**	**940**	**0.05**	**95**

Source: GLA 2011 Appdx E, Table One.

- *Regional Water Quality Control Board Jurisdiction*

The segment of the Perris Valley Channel that bisects the Project site contains 1.57 acres of RWQCB jurisdiction, none of which consists of jurisdictional wetlands, and 940 linear feet of streambed. The Project, as proposed, would permanently impact 0.05-acre of RWQCB jurisdiction, none of which consists of jurisdictional wetlands. A total of a 95 linear feet of streambed would be permanently disturbed (GLA 2011 Appdx E 2). Table 4.3-3, *Permanent Impacts to RWQCB Jurisdiction*, depicts Project impacts to RWQCB jurisdictional areas, which also are presented graphically on Figure 4.3-4. Project impacts to 0.05-acre of RWQCB jurisdictional areas would require a permit from the RWQCB, which is identified as a Project Requirement in Subsection 4.3.5. There would be no

adverse effects on any riparian habitat or other sensitive natural community regulated by the RWQCB.

Table 4.3-3 Permanent Impacts to RWQCB Jurisdiction

DRAINAGE FEATURES	TOTAL REGIONAL BOARD JURISDICTION (ACRES)	LENGTH OF DRAINAGE (FEET)	TOTAL PERMANENT IMPACTS TO REGIONAL BOARD JURISDICTION (ACRES)	LINEAR-FOOT IMPACTS (FEET)
Perris Valley Channel	1.57	940	0.05	95
Total	**1.57**	**940**	**0.05**	**95**

Source: GLA 2011 Appdx E, Table Two.

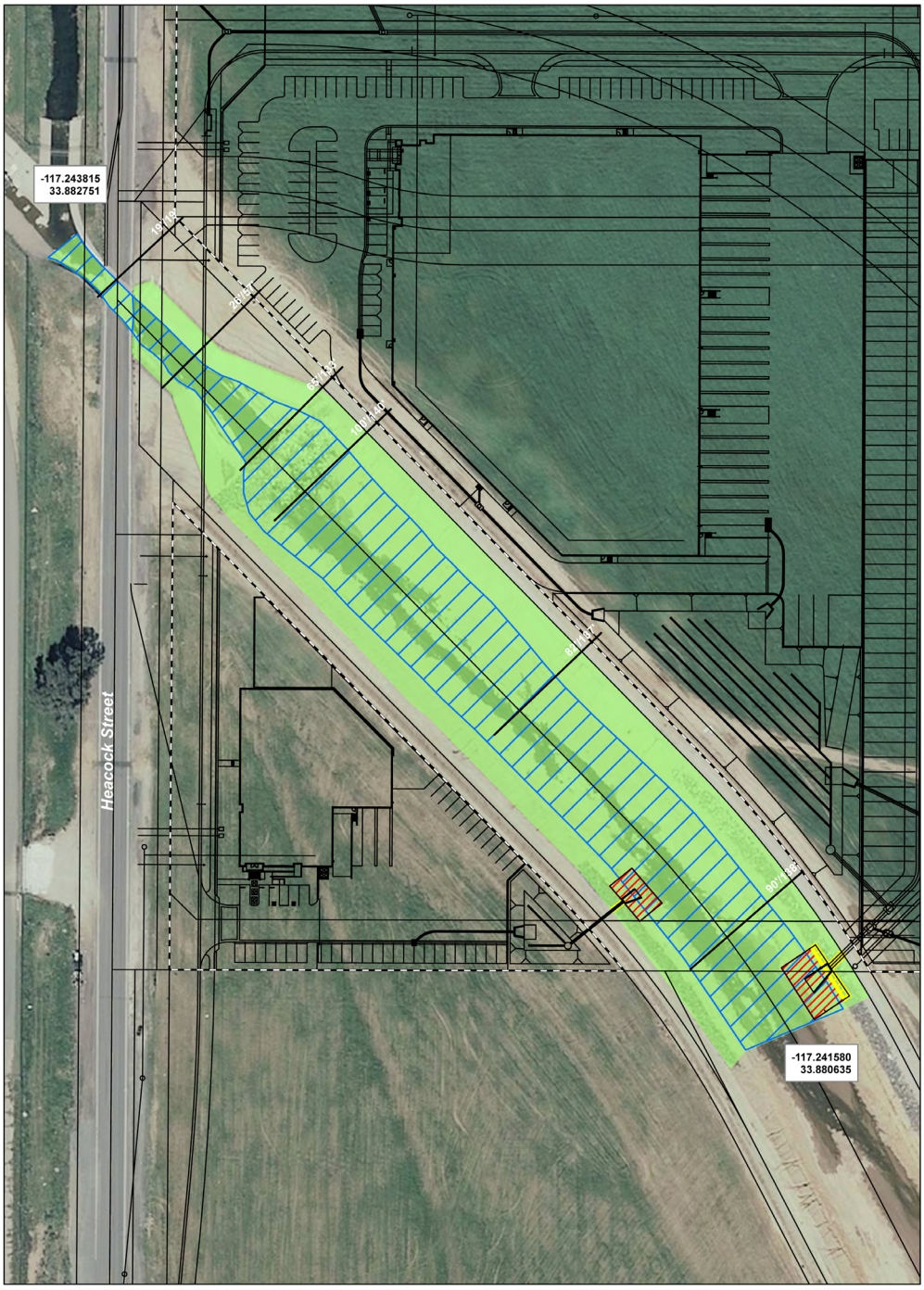
- *Impacts to CDFG Jurisdiction*

The segment of the Perris Valley Channel that bisects the Project site contains a total of 2.51 acres of CDFG jurisdiction, none of which consist of vegetated riparian habitat, and 940 linear feet of streambed. The Project, as proposed, would temporarily impact 0.01-acre of CDFG jurisdiction, none of which consists of vegetated riparian habitat, and permanently impact 0.06-acre of CDFG jurisdiction, none of which consists of vegetated riparian habitat (GLA 2011 Appdx E 2-3). The Project also would result in permanent impacts to 95 linear feet of streambed. Table 4.3-4, *Temporary Impacts to CDFG Jurisdiction*, summarizes the Project's temporary impacts to CDFG jurisdiction and Table 4.3-5, *Permanent Impacts to CDFG*, summarizes the Project's permanent impacts to CDFG jurisdiction. Impacts to CDFG jurisdictional areas also are depicted on Figure 4.3-4. The proposed Project's temporary impacts to 0.01-acre of CDFG jurisdictional areas and permanent impacts to 0.06-acre of CDFG jurisdictional areas would require a permit from the CDFG, which is identified as a Project Requirement in Subsection 4.3.5. There would be no adverse effects on any riparian habitat or other sensitive natural community regulated by the CDFG.

Table 4.3-4 Temporary Impacts to CDFG Jurisdiction

DRAINAGE FEATURES	TOTAL CDFG JURISDICTION (ACRES)	LENGTH OF DRAINAGE (FEET)	TOTAL TEMPORARY IMPACT TO CDFG JURISDICTION (ACRES)	LINEAR-FOOT IMPACTS (FEET)
Perris Valley Channel	2.51	940	0.01	N/A*
Total	**2.51**	**940**	**0.01**	**N/A***

*Temporary linear-foot impacts to CDFG jurisdiction would not occur because the temporary impact area is inclusive of the permanent linear-foot impact area (refer to Table 4.3-5).
Source: GLA 2011 Appdx E, Table Three.



Source: Glenn Lukos (09-15-11)

Not to Scale

FIGURE 4.3-4
Jurisdictional Impact Map

Table 4.3-5 Permanent Impacts to CDFG Jurisdiction

DRAINAGE FEATURES	TOTAL CDFG JURISDICTION (ACRES)	LENGTH OF DRAINAGE (FEET)	TOTAL PERMANENT IMPACT TO CDFG JURISDICTION (ACRES)	LINEAR-FOOT IMPACTS (FEET)
Perris Valley Channel	2.51	940	0.06	95
Total	**2.51**	**940**	**0.06**	**95**

Source: GLA 2011 Appdx E, Table Four.

Threshold 3: Would the Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

As indicated previously in Subsection 4.3.1H, no federally protected wetlands or riparian areas are located on the property or in the Project's off-site impact area; therefore, direct impacts to federally protected wetlands and riparian areas have no potential to occur (GLA 2011 38). With issuance of a required U.S. Army Corps of Engineers Section 404 Permit for the Project's 0.05-acre impact to 95 linear feet of jurisdictional streambed (discussed above under Threshold 3), the Project would not have a substantial adverse effect on any federally protected wetlands through direct removal, filling, hydrological interruption, or other means.

Threshold 4: Would the Project interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?

As noted previously, although the Project site occurs within the MSHCP Plan Area, it is not located within or adjacent to any areas proposed for conservation, including areas identified as proposed or existing linkages (including constrained linkages). The MSHCP Reserve Area was designed to ensure the establishment and/or preservation of wildlife movement corridors, and because the Project site is not located in areas targeted for conservation for such purposes, Project implementation would not interfere substantially with the movement of any wildlife species. Additionally, there are no native wildlife nursery sites in close proximity to the proposed Project, and areas surrounding the site include areas of urban development or areas planned for urban development that do not facilitate wildlife movement. Accordingly, the Project would not result in any impacts to wildlife movement corridors or native wildlife nursery sites.

Threshold 5: Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

EIR Subsection 4.9, Land Use and Planning, provides an extensive analysis of the proposed Project's consistency with all applicable local and regional policies, and concludes that the Project would not result in any significant conflicts with any policies related to the protection of biological resources. In addition, the proposed Project would be required to comply with CEQA and the mandatory payment of MSHCP fees pursuant to Title 3, Chapter 3.48 of the City's Municipal Code. Although the City of Moreno Valley's Landscape Ordinance requires that "all mature trees on a site with 4" calipers or greater in place shall be retained and preserved," the proposed Project would not conflict

with the Landscape Ordinance requirements because no such trees exist on the site. The City of Moreno Valley does not have any additional ordinances in place protecting biological resources. Therefore, a significant impact would not occur.

Threshold 6: ***Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or state habitat conservation plan?***

The following is an analysis of the proposed Project's compliance with the Western Riverside County MSHCP's Reserve Assembly Requirements as well as other applicable MSHCP requirements pursuant to the following sections of the MSHCP: Section 6.1.2, *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools*; Section 6.1.3, *Protection of Narrow Endemic Plant Species*; Section 6.1.4, *Guidelines Pertaining to the Urban/Wildland Interface*; and Section 6.3.2, *Additional Survey Needs and Procedures.*

❒ Project Relation to Reserve Assembly

The Project site occurs within the overall Plan Area of the MSHCP, and as such the Project is required to abide by any applicable survey and/or conservation requirements. As indicated in the discussion below, all surveys required by the MSHCP have been conducted on the proposed Project site and off-site improvement areas. However, the Project site does not occur within the MSHCP Criteria Area. As such, the Project is not required to set aside conservation lands pursuant to the MSHCP, and the Project is not subject to the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process, or Joint Project Review (JPR). Accordingly, the proposed Project would not conflict with the MSHCP Reserve Assembly requirements (GLA 2011 40).

❒ Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools

As discussed under Threshold 2, above, the proposed Project would permanently impact 0.05-acre of MSHCP Riverine Areas associated with the Project's proposed off-site drainage improvements within the Perris Valley Channel. *Volume 1, Section 6.1.2* of the MSHCP states that unavoidable impacts to MSHCP Riverine Areas shall be mitigated such that the lost functions and values as they relate to Covered Species are replaced as set forth under the DBESP requirements. However, the Project's minor impacts to unvegetated streambed would not result in a loss of functions and values as it relates to MSHCP Covered Species. As such, Project impacts to 0.05-acre of MSHCP riverine areas represents a less than significant impact that is not subject to the DBESP requirements; accordingly, the proposed Project would comply with *Volume 1, Section 6.1.2* of the MSHCP and a significant impact would not occur (GLA 2011 40).

❒ Protection of Narrow Endemic Plants

Section 6.1.3 of the MSHCP requires that within the Narrow Endemic Plant Species Survey Area (NEPSSA), site-specific focused surveys for Narrow Endemic Plant Species will be required for all public and private projects where appropriate soils and habitat are present. The Project site and off-site improvement areas are not located within the NEPSSA; therefore, focused surveys are not required for any of the Narrow Endemic Plants on the Project site. Accordingly, the proposed Project would not conflict with Volume I, Section 6.1.3 of the MSHCP, and a significant impact would not occur (GLA 2011 40).

❒ Guidelines Pertaining to the Urban/Wildland Interface

The MSHCP Urban/Wildland Interface Guidelines are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area. As the MSHCP Conservation Area is assembled, development is expected to occur adjacent to the Conservation Area and edge effects with the potential to adversely affect biological resources within the Conservation Area are required to be evaluated. Edge effects are identified in the MSCHP as: Drainage; Toxics; Lighting; Noise; Invasive Species; Barriers; and Grading/Land Development. The Project site does not occur within or adjacent to the MSCHP Criteria Area or existing Conservation Area, or any Public/Quasi-Public lands. As such, the proposed Project would not have the potential to create indirect effects on the MSHCP Conservation Area and is not be subject to the Urban/Wildland Interface Guidelines (GLA 2011 41). The Project, therefore, is consistent with Section 6.1.4 of the MSHCP.

❒ Additional Survey Needs and Procedures

MSHCP Section 6.3.2 identifies that in addition to the Narrow Endemic Plant Species addressed in Section 6.1.3, additional surveys may be needed for other certain plant and animal species in conjunction with MSHCP implementation in order to achieve full coverage for these species. Within areas of suitable habitat, focused surveys are required for additional plant species if a project site occurs within a designated CAPSSA, or special animal species survey area (i.e., burrowing owl, amphibians, and mammals). Of these, the Project site only occurs within the MSHCP burrowing owl survey area (GLA 2011 41).

As discussed above under the analysis of Threshold 1, implementation of the proposed Project would result in the loss of occupied burrowing owl habitat. However, since the Project site supports fewer than three owl pairs, the MSHCP requirements allow for the owls to be relocated from the site prior to commencement of construction activities pursuant to Objectives 5 and 6 of the MSHCP objectives for the burrowing owl.

4.3.4 CUMULATIVE IMPACT ANALYSIS

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects in the vicinity of the Project site and resulting from full General Plan buildout in the City of Moreno Valley and other jurisdictions in the region within the boundaries of the Western Riverside County MSHCP.

Implementation of the proposed Project would result in permanent ground disturbance to the 75.05-acre Project site, an off-site impact in the Perris Valley Channel to construct a drainage outlet, and additional off-site impacts within the Heacock Street public right-of-way for the installation of sewer line improvements. The primary effects of the proposed Project, when considered with the build out of long range plans in the region, would be the cumulative loss of vacant land that can support habitat for sensitive species. With respect to special-status species, although habitat offered on the Project site (ruderal vegetation and disturbed/developed vegetation) is of substantially lesser quality than habitat that is found in undisturbed natural areas, it still provides open spaces for foraging, refuge, nesting, and areas that can be used for species reproduction.

Anticipated cumulative impacts have been addressed within the region by the Western Riverside County MSHCP. The MSHCP, as currently adopted, addresses 146 “Covered Species” that represent a broad range of habitats and geographical areas within Western Riverside County,

including threatened and endangered species and regionally- or locally-sensitive species that have specific habitat requirements and conservation and management needs. The MSHCP addresses biological impacts for take of Covered Species within the MSHCP area. Impacts to Covered Species and establishment and implementation of a regional conservation strategy and other measures included in the MSHCP are intended to address the federal, state, and local mitigation requirements for these species and their habitats. Specifically, Section 4.4 of the MSHCP states that:

> *The MSHCP was specifically designed to cover a large geographical area so that it would protect numerous endangered species and habitats throughout the region. It is the projected cumulative effect of future development that has required the preparation and implementation of the MSHCP to protect multiple habitats and multiple endangered species.*

It goes on to state that:

> *The LDMF [Local Development Mitigation Fee] is to be charged throughout the Plan Area to all future development within the western part of the County and the Cities in order to provide a coordinated conservation area and implementation program that will facilitate the preservation of biological diversity, as well as maintain the region's quality of life.*

The reason for the imposition of the Mitigation Fee over the entire region is that the loss of habitat for endangered species is a regional problem resulting from the cumulative impacts of continuing development throughout all of the jurisdictions in Western Riverside County. Finally, Section 5.1 of the MSHCP states that:

> *It is anticipated that new development in the Plan Area will fund not only the mitigation of the impacts associated with its proportionate share of regional development, but also the impacts associated with the future development of more than 332,000 residential units and commercial and industrial development projected to be built in the Plan Area over the next 25 years.*

As the construction of buildings, infrastructure, and all alterations of the land within areas that are outside of the Criteria Area are permitted under the MSHCP (see MSHCP Section 2.3.7.1), cumulative impacts to biological resources with the exception of MSHCP non-covered species would be less than significant provided that the terms of the MSHCP are fully implemented (MSHCP Final EIR/EIS, Section 4.4.1.6). The MSHCP database has been consulted for the proposed Project and the recommended focused surveys (for the western burrowing owl) have been conducted. The Project is required to pay the required MSHCP mitigation fees per the City of Moreno Valley Municipal Code Title 3, Chapter 3.48. The Project would comply with the requirements of the MSHCP and, thus, would not conflict with its adopted policies. Accordingly, because the Project complies with the MSHCP, would pay the required MSHCP mitigation fee, and would have less than significant impacts to MSHCP non-covered species, the proposed Project's contribution to cumulative impacts would be less than significant.

As indicated under the discussion and analysis of Threshold 1 in Subsection 4.3.3, the Project site does not contain any habitat for any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations. Accordingly, the Project would not result in any cumulatively significant impacts to sensitive species as a result of habitat loss.

Although the Project would impact one special status plant (smooth tarplant), the Project site does not occur within the MSHCP's CAPSSA, indicating that the species is not targeted for conservation in the Project area and would be conserved instead as part of the assemblage of the MSHCP Reserve System. Since the proposed Project and all other developments within the cumulative study area would be required to comply with the MSHCP, Project impacts to special-status plants are evaluated as less than significant on a cumulative basis.

Regarding special-status animals, the Project would eliminate actual or potential live-in habitat for the burrowing owl, California horned lark, coastal western whiptail, orange-throated whiptail, and the San Diego black-tailed jackrabbit. In addition, the Project would eliminate foraging habitat for the loggerhead shrike, ferruginous hawk, and other raptors. With exception of the burrowing owl, none of these species has project-specific mitigation requirements pursuant to the MSHCP. As the proposed Project and other cumulative developments would be required to comply with the MSHCP, Potential Project-related impacts to California horned lark, coastal western whiptail, orange-throated whiptail, San Diego black-tailed jackrabbit, loggerhead shrike, ferruginous hawk, and other raptors are concluded to be less than significant on a cumulative basis because adequate habitat for these species would be accommodated through the MSHCP Reserve System. The burrowing owl is fairly ubiquitous within the Project vicinity; as such, it is reasonable to conclude that impacts to habitat for this species are occurring throughout the cumulative study area. As such, prior to mitigation, the proposed Project's impacts to burrowing owls that may be located on the site are evaluated as cumulatively significant and mitigation would be required.

Similarly, the proposed Project has the potential to impact nesting birds if construction activities occur during the nesting season. Impacts to nesting birds, including burrowing owls, are prohibited by the Migratory Bird Treaty Act and California Fish and Game Code. As nesting birds, including the burrowing owl, occur throughout the Project's cumulative study area, and because the Project has the potential to result in significant impacts to nesting birds, the Project also would result in a cumulatively significant impact to nesting birds prior to mitigation.

The proposed Project would result in impacts to jurisdictional areas, including impacts to 0.05-acre of Corps jurisdiction, 0.05-acre of RWQCB jurisdiction, and 0.06-acre of CDFG jurisdiction (including 0.01-acre of temporary impact to CDFG jurisdiction). Impacts to jurisdictional areas require the issuance of permits from the Corps, RWQCB and CDFG. With issuance of the required permits, cumulative impacts are reduced to below levels of significance. The Project would not impact any wetlands or riparian areas; thus, the Project does not have the potential to contribute to cumulatively significant wetland and riparian impacts.

As indicated under the discussion and analysis of Threshold 4 in Subsection 4.3.3, the proposed Project would not significantly impact wildlife movement corridors because such corridors already are accommodated by the MSHCP and the Project site is not targeted for conservation as part of any proposed or existing linkages by the MSHCP. In addition, there are no native wildlife nursery sites within the Project vicinity. While Western Riverside County is becoming increasingly urbanized, which could restrict wildlife movement, the MSHCP, and the Conservation Areas established therein, was developed with several goals that specifically support wildlife movement. Accordingly, cumulative impacts to wildlife movement are less than significant. As concluded by the MSHCP's Final EIR/EIS, *"The MSHCP provides for the movement of native resident and migratory species and for genetic flow identified for Covered Species. Therefore, impacts related to cores and linkages resulting from the Plan are considered less than significant."* (MSHCP Final EIR/EIS, Section 4.1.5)

Accordingly, the proposed Project would not result in any cumulatively significant impacts to wildlife movement corridors or native wildlife nursery sites.

The proposed Project would not conflict with any local policies or ordinances protecting biological resources; accordingly, a cumulatively significant impact due to a conflict with such local policies or ordinances would not occur.

As discussed under the analysis of Threshold 6 in Subsection 4.3.3, the proposed Project would be fully consistent with the all applicable MSHCP requirements, including the MSHCP's Reserve Assembly requirements, MSHCP policies pertaining to narrow endemic plants, MSHCP requirements for the Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools, and requirements related to Urban/Wildland interface. As such, cumulative impacts due to a conflict with these the MSHCP would not occur.

4.3.5 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Compliance with these measures was assumed throughout the above analysis of impacts to biological resources.

PR 4.3-1 The Project shall comply with City of Moreno Valley Municipal Code Title 3, Chapter 3.48, *Western Riverside County Multiple Species Habitat Conservation Plan Fee Program*, which requires a per-acre local development mitigation fee that will assist in providing revenue to acquire and preserve vegetation communities and natural areas within the city and western Riverside County which are known to support threatened, endangered or key sensitive populations of plant and wildlife species.

PR 4.3-2 The Project shall comply with City of Moreno Valley Municipal Code Title 3, Chapter 8.60, *Threatened and Endangered Species*, which requires a per-acre local development mitigation fee pursuant to the City's adopted "The Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California" and as established pursuant to Fee Resolution 89-92.

4.3.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: Significant Direct and Cumulative Impact. The Project has the potential to directly and cumulatively impact burrowing owls that may be present on the site at the time development occurs. The Project also has the potential to directly and cumulatively impact nesting birds that may be present on the site if construction activities were to occur during the nesting season.

Threshold 2: Less than Significant Impact. The Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community. Although the proposed Project would impact 0.05-acre of MSHCP riverine area in the off-site Perris Valley Storm Drain Channel (as well as 0.05-acre of Corps and RWQCB jurisdictional area and 0.06-acre of CDFG jurisdictional area), this area is an unvegetated streambed. As such, there would be no loss of functions and values of riparian habitat or substantial effect on a sensitive natural community.

Threshold 3: No Impact. There are no federally protected wetlands on the Project site. A Section 404 Permit is required for the Project's off-site impact to 0.05-acre of Corps jurisdictional area, but this area is not a wetland.

Threshold 4: Less than Significant Impact. The Project would not substantially interfere with the movement of any resident or migratory fish or wildlife species, would not impact a wildlife corridor, nor impede the use of a nursery site.

Threshold 5: No Impact. The Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Threshold 6: Less than Significant Impact. The Project is subject to the Western Riverside County MSHCP and would not conflict with any applicable MSHCP provision.

4.3.7 MITIGATION

MM 4.3-1 Prior to the issuance of any grading permits, the Planning Division of the Community & Economic Development Department shall review grading plans to ensure that the following note is included on the plans:

> "No more than 30 days prior to commencement of ground-disturbing activities on site, a qualified biologist shall conduct pre-construction presence/absence surveys in accordance with the MSHCP Burrowing Owl Survey Instructions requirements and as required by MSHCP Objective 6 for the burrowing owl.
>
> In the event that pre-construction surveys identify the presence of any burrowing owls, then prior to commencement of ground-disturbing activities on site, and pursuant to Objective 6 of the MSHCP burrowing owl objectives, a qualified biologist shall passively relocate any burrowing owls present on site following protocols approved by the MSHCP, CDFG, and USFWS, including the required use of one-way doors to exclude owls from the site and collapsing of burrows.
>
> Owl relocation shall occur between September 15th and February 1st to avoid the nesting season. The "take" of any active nests during the breeding season shall be prohibited pursuant to the Migratory Bird Treaty Act and California Fish and Game Code.
>
> Ground disturbing activities authorized by this permit shall not occur until a report documenting the findings of the pre-construction survey has been prepared and approved by the Planning Division of the Community & Economic Development Department. The report shall identify the results of the pre-construction survey and provide documentation and evidence (e.g., photographs) of any passive relocation efforts that have occurred. No ground-disturbing activities may proceed unless the final report, as approved by the Planning Division, concludes that burrowing owls are no longer present on the property."

MM 4.3-2 As a condition of approval for all grading permits, vegetation clearing and ground disturbance shall be prohibited during the migratory bird nesting season (February 1

through September 15), unless a migratory bird nesting survey is completed in accordance with the following requirements:

a) A nesting bird survey shall be conducted by a qualified biologist within three (3) days prior to initiating vegetation clearing or ground disturbance.

b) A copy of the nesting bird survey results report shall be provided to the City of Moreno Valley. If the results of the nesting bird survey identify the presence of active nests on the property, then the qualified biologist shall provide the City of Moreno Valley Planning Division with a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impact. The size and location of all buffer zones, if required, shall be subject to review and approval by the Planning Department. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist and City Planning Department verify that the nests are no longer occupied and the juvenile birds can survive independently from the nests.

Impacts to CDFG, Corps, and RWQCB would not be significant due to standard regulatory requirements requiring the acquisition of a Section 1602 Streambed Alteration Agreement, Section 401 Permit, and Section 404 Permit. As part of these permits, the following mitigation measures will be required:

MM 4.3-3 Prior to the issuance of grading permits, and in accordance with the California Fish and Game (CDFG) Code, the Project shall obtain a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Game (CDFG) for impact to 0.06-acre of CDFG jurisdictional area in the Perris Valley Storm Drain Channel. As part of the Agreement, the Project Applicant may acquire credits for the impact at a minimum 1:1 ratio from an approved in-lieu fee program or mitigation land bank.

MM 4.3-4 Prior to the issuance of grading permits, and in accordance with the Clean Water Act, the Project shall obtain a Section 404 Permit from the U.S. Army Corps of Engineers (Corps) and a Section 401 Permit from the Regional Water Quality Control Board (RWQCB) for impact to 0.05-acre of Corps and RWQCB jurisdictional area in the Perris Valley Storm Drain Channel. As part of the Permits, the Project Applicant may acquire credits for the impact at a minimum 1:1 ratio from an approved in-lieu fee program or mitigation land bank.

4.3.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Threshold 1: Less than Significant Impact with Mitigation. Implementation of Mitigation Measure MM 4.3-1 would ensure that potential impacts to the burrowing owl are reduced to a level below significant. Implementation of Mitigation Measure MM 4.3-2 would ensure that any nesting birds that may be present on the site are avoided during the nesting season, and would therefore reduce the Project's direct and cumulative impacts to nesting birds to a level below significant.

4.4 CULTURAL RESOURCES

This Subsection 4.4 is based on a cultural resources investigation conducted by Jones & Stokes Associates. The cultural resources report, titled "Cultural Resources Survey Report for the March Business Center Project" (dated April 2008; revised March 2012), is included as *Technical Appendix D* to this EIR. Information used to support the analysis in this Subsection also was obtained from the Cultural Resources section (Section 5.10, pp. 5.10-1 – 16) of the certified Final Program EIR prepared for the City of Moreno Valley General Plan (SCH No. 2000091075), dated July 2006 (Moreno Valley 2006b), the property's Phase I Environmental Assessment report dated December 2006 (*Technical Appendix G1*), the Project's Geotechnical Investigation dated January 3, 2007 (*Technical Appendix E*), as well as correspondence received by the City of Moreno Valley as part of Native American consultation efforts conducted in compliance with California Government Code Section 65352.3.

4.4.1 EXISTING CONDITIONS

A. General Prehistory Description

The Project site is located in the southwestern portion of the City of Moreno Valley, California. Prehistory within the Project area is defined by six cultural periods: Early Man Period, Paleo-Indian Period, Pinto Period, Gypsum Period, Saratoga Springs Period, and Shoshonean Period. Each of these cultural periods is briefly described below and documented in *Technical Appendix D*.

- Early Man Period. The Early Man Period is generally characterized as a hunting tradition and is thought to date from approximately 12,000 years ago to as far back as 50,000 years ago. Various geologic and experimental dating methods have been used to provide these extreme temporal assignments, although most have failed to withstand scientific scrutiny and it appears likely that humans first arrived in southern California no earlier than 13,000 years ago.

- Paleo-Indian Period. The Paleo-Indian Period began approximately 12,000 years ago and persisted until approximately 7,000 years ago. Paleo-Indian Period artifacts are associated with the highly mobile hunter-gatherer society that dominated during this period.

- Pinto Period. The Pinto Period ranged from approximately 7,000 years ago to 4,000 years ago. This period is marked by a gradual transition from wet pluvial conditions to arid desert conditions during the terminal Pleistocene and Early Holocene. Pinto-series projectile points, crudely made with stemmed or basally notched dart points, are the most distinctive artifact type of the Pinto Period. Other artifacts found at Pinto Period sites include large leaf-shaped knives, thick split cobble choppers and scrapers, scraper-planes, and small milling slabs and manos. Most known Pinto Period sites consist of small surface deposits of lithic artifacts that are suggestive of temporary, and perhaps seasonal, occupation by small groups of people.

- Gypsum Period. The Gypsum Period ranged from approximately 4,000 years ago to approximately AD 500. This period coincides with a period of increased moisture in the region, which allowed for more extensive occupation of the desert regions. In addition, periods of drought within this era seem to have resulted in human adaptations to more

arid conditions, rather than a retreat from the deserts. Large occupation sites are usually located adjacent to permanent natural water sources, such as perennial springs or larger streams. Technologically, the artifact assemblage of this period is similar to that of the Pinto Period; new tools were added either as innovations or as borrowed cultural items. Late in the Gypsum Period, Rose Spring arrow points appear in the archaeological record, reflecting the spread of the bow and arrow technology from the Great Basin and the Colorado River region. Other artifact types characteristic of this period include leaf-shaped arrow points, rectangular-based knives, flake scrapers, T-shaped drills, milling slabs and manos, as well as core/cobble tool assemblages such as scraper planes, large choppers, and hammerstones. Shaft smoothers, incised slate and sandstone tablets and pendants, bone awls, *Olivella* shell beads, and *Haliotis* beads and ornaments are also found.

- Saratoga Springs Period. The Saratoga Springs Period spanned from approximately AD 500 to AD 1200. This period is, in large part, a continuation of the developments that began during the Gypsum Period, such as increasing adaptation to the arid environment in the deserts and an increase in trade relations. Regional environmental conditions became much wetter, a development known as the Little Pluvial. Variations in regional cultural adaptations during the Saratoga Springs Period also become apparent. Trade with the Pacific and Gulf Coastal populations appears to have been extensive, and was one driving force that led to the gradual expansion of Patayan cultural traits further west in to the mountains of the Peninsular Range as well as into the inland valleys and coastal regions of southern California. Lake Cuhuilla is believed to have refilled the Coachella Valley around AD 500, and was the focus of cultural activities such as exploitation of fish, waterfowl, and wetland resources during this period. Desert people, speaking Shoshonean languages, may have moved into southern California at this time.

- Shoshonean Period. The Shoshonean Period began in approximately AD 1200 and lasted into the 1800s. During this period there appears to have been a continuation of the technological developments from the earlier Saratoga Springs Period. However, regional developments indicate that the formation of distinct ethnographic groups become clearer. During this period, Lake Cahuilla began to dry, and the large Patayan populations occupying its shores began moving westward. Subsequently, Spanish exploration and establishment of the Mission system during the late 1700s mark the end of prehistoric lifeways.

B. General Ethnography Description

As reported in *Technical Appendix D* and confirmed in research conducted by Bean (Bean 1978 575-87), the Project site lies on the edge of the traditional cultural territory of the Cahuilla Indians (Jones & Stokes 2008 10). Correspondence received by the City of Moreno Valley from the Morongo Band of Mission Indians (Dancy 2011) also indicates that the site may be within Cahuilla/Serrano territory. The Cahuilla practiced a lifeway based on hunting, collecting, and harvesting. Trading of resources also was an important component of Cahuilla society. Acorns were a major food staple, but the roots, leaves, seeds, and fruit of many other plants also were used. To gather and prepare these food resources, the Cahuilla had an extensive inventory of equipment, including bows and arrows, traps, nets, disguises, blinds, throwing sticks, slings, spears, hooks, and fish poisons. Shelters were often

made of brush, fan palm fronds, or arrowweed. In prehistoric times they were dome-shaped, but later tended to be rectangular (Jones & Stokes 2008).

Luiseño tribes assert that the Project site is within traditional Luiseño territory (Duro 2011, Hoover 2011b 5-9), instead of Cahuilla territory. Luiseño history originates in the present-day City of Temecula, from which the Luiseño people spread out, establishing villages in the area (Hoover 2011b 3). Like other Native American groups in Southern California, the Luiseño caught and collected seasonally available food resources and led a semi-sedentary lifestyle. Luiseño subsistence was based primarily on seeds like acorns, grass seed, manzanita, sunflower, sage, chia, and pine nuts, as well as game animals such as deer, rabbit, jackrabbit, wood rat, mice, antelope, and many types of birds.

Considering the information contained in *Technical Appendix D* and correspondence received by the City of Moreno Valley from Native American tribes as part of the government-to-government consultation process required by SB18 (California Government Code §65352.1; "Traditional Tribal Places"), the City has identified a disagreement among experts regarding the Project site's traditional Native American tribal affiliation. Some experts assert that the property is within traditional Cahuilla territory (Jones & Stokes 2007 10, Dancy 2011, Bean 1978 575-87), while other experts assert that the property is within traditional Luiseño territory (Duro 2011, Hoover 2011b 5-9). A third expert asserts that the property was a shared use area that was used for ongoing trade between the Cahuilla and Luiseño (Ontiveros 2011a). This EIR acknowledges that Native American territorial boundaries were somewhat fluid and changed through time, which could be the cause of the disagreement among experts. Additionally, the City of Moreno Valley's General Plan EIR identifies the City as being occupied by both Luiseno and Cahuilla peoples (City of Moreno Valley, 2006b 5.10-6). As such, the analysis in this EIR treats the Project site as a traditional shared use area between the Cahuilla and Luiseño tribes.

C. *Description of the Native American Consultation Process*

In accordance with California Government Code Section 65352.3, local governments are required to conduct consultation with California Native American tribes that are on the contact list maintained by the Native American Heritage Commission (NAHC) before adopting or amending a city or county general plan. The proposed Project involves an amendment to the City's General Plan to change the alignment and classification of Krameria Avenue; accordingly, consultation was conducted pursuant to CEQA Guidelines §15083, "Early Public Consultation," which states that "the Lead Agency may also consult directly with any person or organization it believes will be concerned with the environmental effects of the project." Because there is a potential for subsurface archaeological resources to be discovered at the Project site, the City conducted early public consultation with local Native American tribes.

Jones & Stokes initiated consultation efforts in 2007 (as part of the "prior project" discussed in Subsection 1.3) by contacting the NAHC to obtain their sacred lands file (SLF) and a list of Native American representatives for the Project area. A response was received from the NAHC on October 19, 2007 stating that a search of the SLF database did not yield any sacred lands or traditional cultural properties within the Project area. Upon recommendation from the NAHC, 11 Native American tribes were contacted on October 23, 2007. On November 1, 2007, Darrell Hill of the Soboba Band of Luiseño Indians responded requesting that the Soboba Band of Luiseño Indians receive copies of all archaeological and/or cultural resources documents, and further requested that

the City consult with Native American tribes. On November 29, 2007, John Gomez of the Ramona Band of Cahuilla replied and stated that the Project area is within the traditional territory of the Cahuilla People, and expressed concern over the protection, proper, and lawful treatment of unique and irreplaceable cultural resources that may be exposed during construction activities. Mr. Gomez also requested copies of the cultural resources reports prepared for the site (Jones & Stokes 13). No response was received from the Pechanga Tribe or other tribes.

In March 2011, consultation efforts were re-initiated by the City of Moreno Valley for the proposed Project. On February 1, 2011, the Morongo Band of Mission Indians responded, stating that the Project site may be located within the Cahuilla/Serrano traditional use area and requested that the Morongo Band be contacted if any human remains or Native American cultural resources are discovered during Project construction and development (Dancy 2011). The Soboba Band of Luiseño Indians responded on February 28, 2011, indicating that the Project site was used as a shared use area in ongoing trade between the Luiseño and Cahuilla tribes. The Soboba Band requested to be a lead consulting tribal entity for the Project and to be engaged in monitoring of ground-disturbing construction activities (Ontiveros 2011a). The Soboba Band sent an identical correspondence in response to this EIR's Notice of Preparation (NOP) (Ontiveros 2011b). Additionally in response to the NOP, a letter was received from the NAHC confirming that no Native American cultural resources were identified in the SLF search and identifying the same 11 Native American tribes for consultation that were contacted in 2007. Correspondence in response to the NOP also was received from the Rincon Band of Luiseño Indians (Duro 2011) requesting that Native American monitors be present during ground disturbing construction activities and from the Pechanga Band of Luiseño Mission Indians (Hoover 2011b), asserting that the Project site is within Luiseño territory and requesting consultation and notification of hearings.

D. General History Description

As documented in *Technical Appendix D*, European settlement of California began with the founding of Mission San Diego de Alcala in 1769. The first known European exploration in Riverside County was in 1772 by a party led by Captain Pedro Fages. In 1776, Juan Bautista de Anza crossed the area en-route to Mission San Gabriel. The founding of Mission San Gabriel in 1771 (Los Angeles County), San Juan Capistrano in 1776 (Orange County), and San Luis Rey in 1798 (San Diego County) had a profound effect on the Native American populations located in and around the Project area. The mission fathers of Mission San Gabriel and Mission San Luis Rey gradually began colonizing the interior valleys in what is now western Riverside County. During this period, Native American populations became increasingly sedentary, learned use of the Spanish language, and converted to Christianity. They provided the labor force for the missions and their ranchos. Some Cahuillas worked seasonally for the Spaniards and lived for the remainder of the year in their villages.

Mexico, including California, won independence from Spain in 1821. A decree of secularization followed in 1834, and the once thriving missions began to be abandoned. After secularization, large land grants were made to individuals in the area that is now western Riverside County.

The acquisition of California by the United States at the end of the Mexican-American War in 1848 and the discovery of gold in 1850 brought many Euro-Americans into California and promoted further cultural changes. The process of surveying and mapping the area began in 1852, when Henry

Washington and a small party of surveyors ascended the San Bernardino Mountains and established the San Bernardino Base and Meridian.

In 1859, the first U.S. Post Office in what would become Riverside County was established at John Magee's store on Temecula Rancho. With the completion of the transcontinental railroad in 1869, land speculators, developers, and colonists began arriving into Southern California. Orange trees were first planted in Riverside County in 1871. The trees thrived in the Southern California climate and the navel orange industry grew rapidly, supported by extensive irrigation projects. By 1882, there were more than half a million citrus trees in California, almost half of which were in Riverside County. On May 9, 1893, Riverside County officially formed from portions of San Bernardino County and San Diego County.

Moreno Valley saw population growth in the years following the construction of the Bear Valley Dam in 1883. Frank E. Moreno, for whom the city is named, constructed the dam to provide a reliable water source to citrus farmers. In 1891, litigation regarding ownership of the dam caused a water shortage that forced agriculturalists out of Moreno Valley. Population was sparse until 1918 when the United States constructed March Field for pilot training. March Air Reserve Base is located directly west of the Project site. Between 1918 and 1922, the base was used primarily to train fighter pilots of the Army Air Corps. This base was closed in 1922. It reopened in 1927 to become a fully-operational Army Air Force Base, and later a major B-52 bomber base after formation of the U.S Air Force in 1947. The base brought jobs and people into Moreno Valley and was the primary impetus for growth in the communities of Moreno, Sunnymead, and Edgemont. In 1984, the three communities were incorporated as the City of Moreno Valley. March Air Force Base was downgraded to an Air Reserve Base in 1993 as a result of recommendations from the 1993 Defense Base Realignment and Closure Commission (March JPA 2010 2-1).

E. Historical Resources

As documented in *Technical Appendix D*, historic period maps depict two structures on Project site by 1942, 10 structures by 1980 including a running track for horses, and the Perris Valley Storm Drain Channel by 1980. The 10 structures and the running track were subsequently demolished and removed, and the area plowed for agricultural use. The Perris Valley Storm Drain Channel remains in place. The Channel, built between 1945 and 1967—likely in the 1950s when this type of reclamation work was common—is a typical earth and concrete lined drainage channel. It possesses no distinctive features and is not identified as being eligible for the California Register of Historic Resources.

F. Archaeological Resources

Jones & Stokes Associates conducted an intensive pedestrian survey of the Project site on October 24 and 25, 2007 (Jones & Stokes 2008 *ii*, 14). A literature and records search also was conducted at the Eastern Information Center, University of California, Riverside. The record search included a review of all available cultural resource survey and excavation reports and site records for an area within a one-mile radius of the Project area. The results of this literature and records search indicate that one archaeological study was previously conducted within the Project area. In addition, five surveys were conducted within a half-mile radius of the Project area. No cultural resources were identified within the Project area; however, one isolated prehistoric stone artifact was identified within a half-mile radius of the site. This artifact was recorded as a pestle, artifact No. 33-15301, and was identified approximately 0.5-mile northeast of the Project site (Jones & Stokes 2008 13).

No archaeological resources were identified during the surface survey conducted by Jones & Stokes in October 2007. One Jones & Stokes archaeologist walked the entire surface area along 15-meter transects, and ground visibility was high due to the routine disking of the site. During the field survey, the race track and a structure once located on the northeastern corner of the property were noted as having been removed from the site. The only traces left of the structure noted during the field surveys were a utility pole, small chunks of wood, and one modern porcelain toilet (Jones & Stokes 2008 14).

G. Paleontological Resources

According to the City of Moreno Valley General Plan Final EIR, the City of Moreno Valley contains sedimentary rock units with potential to contain significant nonrenewable paleontological (fossil) resources. These sedimentary units are referred to as the Mt. Eden Formation and the San Timoteo Formation (City of Moreno Valley 2006b 5.10-10).

The Mt. Eden Formation is described as being primarily reddish sandstone and dark green and brown clay with local reddish fanglomerate and conglomerate. The age of the fossils contained in the Formation and the dark reddish brown coloration distinguish the Mt. Eden formation from the younger, green to gray, tan and red weathering of the San Temoteo Formation. Fossilized fauna include cricetine rodent, horse and proboscidean (extinct animals related to elephants) (City of Moreno Valley 2006b 5.10-10).

The San Timoteo Formation is a widespread deposit of sands, gravels, and clays that extends northward from the foothills of the San Jacinto Mountains for a distance of nearly 20 miles. The San Timoteo Formation contains fossils of land animals and plant species, and represents sediments deposited from about 3.5 to 0.7 million years ago during Late Pliocene to middle Pleistocene time. The presence of non-marine fossils within a sequence of rocks spanning such a long time has lead to several studies of the depositional environments and paleontology of the formation (California Department of Conservation 2002a).

According to Figure 5.10-3 of the Moreno Valley General Plan Final EIR (City of Moreno Valley 2006b 5.10-11), the Project area is characterized as having a "Low" potential for containing paleontological resource deposits. This is because the Project site, as with most of the City of Moreno Valley, is covered with recent alluvium. These sediments overlie fossiliferous sedimentary units of the Mt. Eden Formation and the San Timoteo Formation. Excavation to depths normal for development generally would not penetrate recent alluvial sediments to encounter fossiliferous deposits. Areas within the City that are thought to have the greatest potential for encountering paleontological resources occur in the hills in the east end of the City, in an area known as the Badlands. The proposed Project site is not located in close proximity to this portion of the City.

4.4.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to cultural resources if the Project or any Project-related component would:

1. *Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, Section 15064.5;*

2. *Cause a substantial adverse change in the significance of an archaeological resource as defined in California Code of Regulations, Section 15064.5;*

3. *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or*

4. *Disturb any human remains, including those interred outside of formal cemeteries.*

4.4.3 IMPACT ANALYSIS

Threshold 1: Would the Project cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, Section 15064.5?

No historic sites or historic resources are present on the Project site (Jones & Stokes 2008 13). Although the Project site formerly contained a horse running track and several structures, all buildings previously present on site have since been removed. Accordingly, there are no resources on the property that qualify as historic resources pursuant to California Code of Regulations, Section 15064.5.

Additionally, Figure 5.10-1 of the City's General Plan Final EIR, *Locations of Listed Historic Resource Inventory Structures*, depicts the location of known historic properties within the City. According to this exhibit, the nearest historic property to the proposed Project is located at 21874 Bay Avenue, or approximately 3.1 miles northwest of the Project site (City of Moreno Valley 2006b 5.10-3).

Therefore, because no historic sites or resources are present on the Project site, construction and operation of the Project would not cause a substantial adverse change in the significance of a historic resource. The Project would have no impact on historic resources.

Threshold 2: Would the Project cause a substantial adverse change in the significance of an archaeological resource as defined in California Code of Regulations, Section 15064.5?

Based on the results of a field surveys and record searches conducted for the Project area by Jones & Stokes, the Project site does not contain any known archaeological resources (Jones & Stokes 13-16). Jones and Stokes conducted an intensive pedestrian survey of the Project site over two days in October 2007. As part of the pedestrian survey, one Jones & Stokes archaeologist assessed the site for archaeological resources by walking the entirety of the subject property along 15 meter transects. No archaeological resources were discovered on the Project site. Furthermore, a comprehensive records search conducted by Jones & Stokes concluded that the Project site does not contain any known, previously recorded archaeological resources (Jones & Stokes 2008 13-16). Accordingly, implementation of the proposed Project would not result in a substantial adverse change in the significance of any known archaeological resources, as defined in California Code of Regulations Section 15064.5.

An evaluation of Project's potential to impact previously undiscovered resources that may be present beneath the surface of the property was also considered. As previously summarized in Section 2.0,

Environmental Setting, and discussed in detail in Subsection 4.5, Geology and Soils, the subject property contains damp, loose, disturbed top soils to depths of 12 to 16 inches (NorCal 2006 3). The disturbance of the topsoil on the subject property has been continual since the early 1900s. Based on a review of historical aerial photograph data, the southern portion of the property was used as pasture lands and the northern portion of the property was used as dwellings and possibly agriculture as early as 1938 (SCS Engineers 2006 7-9). Between 1953 and 1967, the northern half of the property was developed with up to 10 structures, including stables and a training center for race horses, complete with a racetrack. By the end of the 1980s, most of the corrals, barns and other buildings had been removed. Since removal of the structures, the entire property has been routinely disked, to depths of about 18 inches. No archaeological resources have been previously identified in the top 18 inches of disturbed soil and the potential to discover unknown resources in those 18 inches is very low.

According to the Moreno Valley General Plan EIR, the subject property is not a part of any known village complex and "the vast majority of archaeological locations in the City are milling stations where bedrock metates (more or less flat grinding surfaces), commonly referred to as 'slicks,' and bedrock mortars are found. Naturally, these locations are generally situated around valley edges where suitable rock outcrops occur" (Moreno Valley 2006b 5.10-6). The Project site is not located on a valley edge and does not contain any rock outcrops. Additionally, a comprehensive records search conducted by Jones & Stokes concluded that only one (1) isolated prehistoric stone artifact (a pestle) was identified within a half-mile radius of the Project site (Artifact No. 33-15301, approximately 0.5-mile northeast of the Project site) (Jones & Stokes 2008 13). This information indicates that the potential for resources to be located beneath the site's surface is low. Correspondence received by the City of Moreno Valley as part of the government-to-government consultation process required by SB18 (California Government Code Section 65352.1; "Traditional Tribal Places"), however, opines that there is not enough information to accurately identify the potential for subsurface resources (Hoover 2011b 9).

The maximum depth of proposed grading shown on the Project's grading plans is 42 inches (3.5 feet), except in proposed detention basin areas that would require limited, deeper excavations to approximately 10 feet in depth. Therefore, the potential for discovery of previously unknown archaeological resources, if present, would be limited to detention basin areas and a 24-inch zone between the 18 inches of top soils that have previously been disturbed and the 42-inch maximum depth of grading.

There is a low likelihood of uncovering subsurface archaeological resources on the subject property during Project-related grading and/or ground disturbing construction activities given: 1) there is no evidence that the property was part of an archaeological village complex; 2) the property does not have the same characteristics of other locations in the City of Moreno Valley where milling slicks, bedrock mortars, and other significant archaeological resources have been discovered; 3) no archaeological resources were discovered on the site during an intensive pedestrian survey; 4) there has been prior and continued disturbance of near-surface soils on the subject property; and 5) the potential zone of discovery is limited to a 24-inch zone and detention basin areas. As such, impacts are less than significant because the Project would not cause a substantial adverse change in the significance of an archaeological resource; no known resources exist at the site and potential for discovery of a resource that meets the definition of a significant resource given in California Code of Regulations Section 15064.5 is low.

Threshold 3: Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

No unique geologic features are present on the Project site (NorCal 2006). According to the City of Moreno Valley General Plan Final EIR, the Project site is considered to have a low potential for containing paleontological resources (City of Moreno Valley 2006b 5.10-11). The Project area primarily consists of recent alluvial sediments, which do not often reveal paleontological sites and resources because they are generally too young to contain fossils

As previously summarized in Section 2.0, Environmental Setting, and discussed in detail in Subsection 4.5, Geology and Soils, the subject property contains damp, loose, disturbed top soils to depths of 12 to 16 inches (NorCal 2006 3). The entire property has been routinely disked, to depths of about 18 inches. No paleontological resources have been previously identified on the property. The maximum depth of proposed grading shown on the Project's grading plans is 42 inches (3.5 feet), except in the areas of proposed detention basins that would require limited, deeper excavations to approximately 10 feet in depth. Fossiliferous deposits underlying the alluvial sediments and 18 inches of previously disturbed surface soils on the Project site are not likely to be encountered during grading of the proposed Project site because grading would not extend to the depth of those deposits. As such, impacts are less than significant because the Project would not directly or indirectly destroy a unique paleontological resource or site or geologic feature; no known resources exist at the site and potential for discovery unique resources, sites, and features is low.

Threshold 4: Would the Project disturb any human remains, including those interred outside of formal cemeteries?

The Project site does not contain a cemetery and no known formal cemeteries are located within the immediate site vicinity. Field surveys conducted on the Project site did not identify the presence of any human remains and no human remains are known to exist beneath the surface of the site (Jones & Stokes 2008 13).

As previously disclosed, the entire property has been routinely disked, to depths of about 18 inches. The maximum depth of proposed grading shown on the Project's grading plans is 42 inches (3.5 feet), except in the areas of proposed detention basins that would require limited, deeper excavations. Although there is not a probable likelihood for human remains to be present in the Project's subsurface disturbance areas, it is acknowledged that human remains have the potential to be discovered during any ground disturbing activities.

The California Native American Graves Protection and Repatriation Act of 2001 (California Health and Safety Code Sections 8010-8011) strives to ensure that all California Indian human remains and cultural items are treated with dignity and respect. If human remains are unearthed during Project construction, the construction contractor would be required by law to comply with California Health and Safety Code, Section 7050.5 "Disturbance of Human Remains." According to Section 7050.5(b) and (c), if human remains are discovered, the County Coroner must be contacted and if the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, the Coroner is required to contact, by telephone within 24 hours, the Native American Heritage Commission (NAHC). Pursuant to California Public Resources Code Section 5097.98, whenever the NAHC receives notification of a discovery of Native American

human remains from a county coroner, the NAHC is required to immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American human remains and may recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. According to Public Resources Code Section 5097.94(k), the NAHC is authorized to mediate disputes arising between landowners and known descendents relating to the treatment and disposition of Native American human burials, skeletal remains, and items associated with Native American burials.

In addition, Conditions of Approval will be imposed on the proposed Project and will require the following: "If human remains are discovered, work in the affected area shall cease immediately and the County Coroner shall be notified. If it is determined that the remains are potentially Native American, the California Native American Heritage Commission and any and all affected Native American Indians tribes shall be notified and appropriate measures provided by State law shall be implemented (GP Objective 23.3, DG, CEQA)."

With mandatory compliance to California Health and Safety Code Section 7050.5, Public Resources Code 5097.98, and the Project's Conditions of Approval, any potential impacts to human remains of Native American descent would be less than significant and mitigation is not required.

4.4.4 CUMULATIVE IMPACT ANALYSIS

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects in the vicinity of the Project site resulting from full General Plan buildout in the City of Moreno Valley and other jurisdictions in the region identified in Subsection 4.0.2.

Record searches and field surveys of the Project area indicate the absence of significant historical sites and resources; therefore, the Project has no potential to contribute towards a significant cumulative impact to historical sites and resources.

Regarding archaeological resources, the cumulative study area includes the Native American traditional use areas of the Luiseno and Cahuilla tribes. As discussed above under the analysis of Threshold 2, a record search and field survey conducted for the Project site indicate that no unique or important archaeological resources are known to exist on the Project site. Additionally, there is a low potential for archaeological resources to be unearthed during Project-related construction activities. The Project, therefore, would not contribute to a significant cumulative archaeological impact.

Similarly, and as indicated above under the discussion of Threshold 3, there are no known paleontological resources on the Project site and the likelihood of their discovery is low. Thus, the Project would not contribute to a significant cumulative paleontological impact to fossiliferous deposits in the Mt. Eden and Temoteo Formations geologic formations.

Human burials are subject to specific regulatory protection, and their treatment is governed by provisions of the Public Resources Code and the Heath and Safety Code, applicable across the State

of California. These requirements are imposed on individual development projects within the City of Moreno Valley through a standard condition of project approval. Consequently, all projects that encounter burials would be required to provide appropriate treatment. Because appropriate treatment of human remains is required by law and the City's standard conditions of approval, there would not be a cumulative impact associated with the disturbance of Native American burials.

4.4.5 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Compliance with these measures was assumed throughout the above analysis of cultural resources.

PR 4.4-1 The Project is required to comply with California Public Resources Code Section 5097.98, "Native American Historical, Cultural, and Sacred Sites."

PR 4.4-2 The Project is required to comply with California Health and Safety Code, Section 7050.5. "Disturbance of Human Remains."

4.4.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: No Impact. The Project would not impact a historic resource. No historic sites are present on the Project site; therefore, no historic sites could be altered or destroyed by construction or operation of the proposed Project.

Threshold 2: Less than Significant Impact. The Project would not impact any known or recorded archaeological resources. There is a low likelihood for unearthing archaeological resources that meet the definition of a significant resource given in California Code of Regulations during Project construction.

Threshold 3: Less than Significant Impact. The Project would not impact any known paleontological resource. There is a low likelihood for unearthing unique paleontological resources, sites, and geologic features during Project construction.

Threshold 4: Less than Significant Impact. No human remains have been discovered at the Project site and no human remains are known to be buried beneath the surface of the site. If human remains are uncovered during ground disturbing construction activities and are determined to be of Native American decent, compliance with California Public Resources Code Section 5097.98, Health and Safety Code Sections 8010-801, and a condition imposed by the City of Moreno Valley to require compliance to those provisions would reduce the potential impact to below a level of significance.

4.4.7 MITIGATION

Although cultural resources impacts would be less than significant, the following mitigation measures are recommended to ensure the proper treatment of unknown resources in the unlikely event that resources are unearthed during the Project's construction process.

MM 4.4-1 Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan:

> "If any suspected archaeological resources are discovered during ground-disturbing activities, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call a qualified archaeologist to the site to assess the significance of the find.
>
> A qualified archaeologist shall evaluate the suspected resource. If the archaeologist determines that the find does not meet the CEQA standards of cultural significance given in the California Code of Regulations Section 15064.5, construction shall be permitted to proceed. However, if the archaeologist determines that further information is needed to evaluate significance, the City of Moreno Valley shall be notified and a treatment plan shall be prepared and implemented in consultation with the City and the culturally affiliated Native American tribe and in accord with Public Resources Code Section 21083.2. The landowner shall relinquish ownership of all archaeological artifacts that are of Native American origin found on the Project site to the culturally affiliated Native American tribe for proper treatment and disposition."

MM 4.4-2 Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan:

> "If any suspected paleontological resources are discovered during ground-disturbing activities, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call a qualified paleontologist to the site to assess the significance of the find.
>
> A qualified paleontologist shall evaluate the suspected resource. If the paleontologist determines that the find is not unique, construction shall be permitted to proceed. However, if the paleontologist determines that further information is needed to evaluate significance, the City of Moreno Valley shall be notified and a treatment plan shall be prepared and implemented in consultation with the City. Discovered fossils or samples of such fossils collected by the paleontologist shall be cleaned and prepared to allow for identification. Specimens recovered shall be donated to a qualified scientific institution for preservation and study. Examples of qualified institutions include, but are not limited to, the San Bernardino County Museum (Redlands, California) or the Western Center for Archaeology and Paleontology (Hemet, California)."

MM 4.4-3 If human remains are discovered during earthwork or other construction activities, work in the affected area shall cease immediately and the Riverside County Coroner shall be notified. The remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made by the Coroner. If the Riverside County Coroner determines the remains to be Native American, the California Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then immediately notify the "most

likely descendants" of receiving notification of the discovery. The most likely descendants shall then make recommendations within 48 hours, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code Section 5097.98, "Native American Historical, Cultural, and Sacred Sites."

4.5 GEOLOGY AND SOILS

This subsection assesses the existing surface and subsurface geologic conditions and features of the Project site and determines the potential for impacts associated with these features. The analysis is based in part on information contained in the report titled "Geotechnical Investigation Proposed Heacock Business Center Development, Southeast Corner of Iris Avenue and Heacock Street, Moreno Valley, California," prepared by NorCal Engineering and dated January 3, 2007. The geotechnical investigation is provided as *Technical Appendix E* to this EIR. In addition, information used to support the analysis in this subsection was obtained from the Geology and Soils section (Section 5.6, pp. 5.6-1 – 5.6-12) of the certified Final Program EIR prepared for the City of Moreno Valley General Plan (SCH No. 2000091075), dated July 2006 (Moreno Valley 2006b).

4.5.1 EXISTING CONDITIONS

A. Regional Geology

The Project site is located within the Peninsular Range Geomorphic Province, a prominent natural geomorphic province that extends from the Santa Monica Mountains approximately 900 miles south to the tip of Baja California, Mexico, and is bounded on the east by the Colorado Desert. The Peninsular Range is characterized by steep, elongated ranges and valleys that generally trend northwesterly (California Department of Conservation 2002b). More specifically, the Project site is situated within the Perris Block unit, which is an eroded mass of Cretaceous and older crystalline and metamorphic rock. Thin sedimentary, metamorphic, and volcanic units locally mantle the bedrock with alluvial deposits filling in the lower valley and drainage areas. The Perris Block is bounded by the San Jacinto fault zone to the northeast, the Elsinore fault zone to the southwest, the east-west compressional faults of the Transverse Ranges Physiographic Province to the north, and to the southeast by the poorly defined northern edge of the Temecula Basin (City of Moreno Valley 2006b 5.6-1).

B. Site Geologic Units

Based on a field exploration and observations conducted by NorCal Engineering and a review of pertinent literature, the subsurface materials within the Project site are comprised of alluvial deposits that overlie granitic bedrock (NorCal 2007 3). Each of these units is discussed below.

❑ Fill/Topsoil

Disturbed top soils generally classified as silty sands to sandy silts with intermixed organics (*i.e.*, roots of surface vegetation) were encountered across the majority of the site to depths of 12 to 16 inches. These soils were generally noted to be dry to damp and loose (NorCal 2007 3).

Subsurface borings discovered a high concentration of asphaltic concrete, concrete, rock, and other debris near the ground surface in an approximately 350 foot by 200 foot area in the northern portion of the Project site. Native soils were encountered beneath the fill materials. It is assumed that the encountered fill materials may have served as a foundation for the structures that were previously located on the Project site (NorCal 2007 3).

❑ Alluvium

Native, undisturbed alluvial soils generally classified as silty and clayey sands to sandy silts were encountered beneath the upper disturbed and fill soils. The native soils were observed to be medium

dense/stiff and damp to moist. Alluvial soils on-site vary in thickness from approximately five (5) to 17 feet (NorCal 2007 3).

- **Granitic Bedrock**

Subsurface borings conducted by NorCal Engineering during the property's field investigation were terminated in depth before encountering bedrock; however, due to the regional geologic characteristics of the area it is assumed that the site is underlain by granitic bedrock (NorCal 2007 3). Furthermore, Moreno Valley General Plan FEIR Figure 5.6-1, *Geology*, indicates that the Project site is underlain by granitic bedrock (City of Moreno Valley 2006b 5.6-2).

C. Site Topography

The Project site is generally flat and ranges in elevation from a high point of approximately 1,502 feet above mean sea level (AMSL) in the northwest corner of the site to a low point of approximately 1,488 feet AMSL in the southeast corner of the site, with an overall topographic relief of approximately 14 feet. There are no unique topographic features or steep natural or manufactured slopes present on the property. Figure 2-5, *Topographic Map*, illustrates the Project site's existing topographic conditions.

D. Surface Water and Groundwater

No seepage or standing water was observed on the ground surface during site investigations, and no groundwater was encountered during subsurface soil borings. Based on a review of groundwater data by NorCal Engineering, it was estimated that regional groundwater occurs at depths of 50 feet below existing ground surface (NorCal 2007 3).

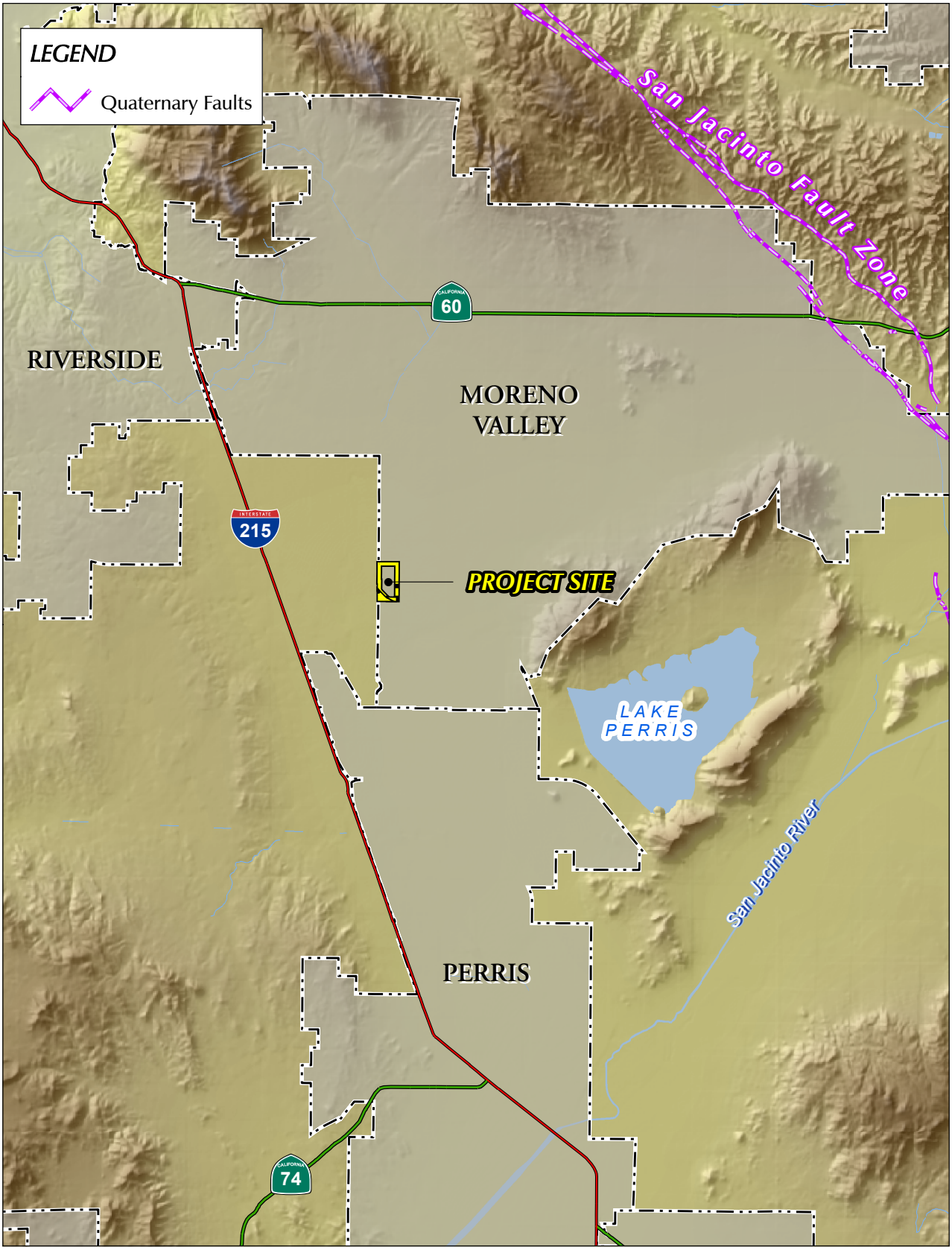
E. Faulting and Seismicity

The geologic structure of the Southern California area is dominated by northwest-trending faults associated with the San Andreas Fault system. The San Andreas Fault system includes several major branches, including San Jacinto and Elsinore faults, as well as numerous minor branches. The San Andreas Fault, Elsinore, and San Jacinto faults are known to have ruptured the ground surface during historic seismic events.

Figure 4.5-1, *Earthquake Fault Zones*, depicts the known, active earthquake faults within the vicinity of the Project site. An active fault is defined by the California Geological Survey as one which has experienced surface displacement within the Holocene Epoch (roughly the last 11,000 years). As depicted on Figure 4.5-1, the nearest known active fault is the San Jacinto Valley section of the San Jacinto Fault zone (Casa Loma Fault), which is located approximately eight (8) miles east of the Project site (California Department of Conservation 2010). There are no active or potentially active faults occurring on the Project site and the site does not lie within an identified Alquist-Priolo Earthquake Fault Zone or within a City-designated fault zone (City of Moreno Valley 2006b 5.6-4, NorCal 2007 5).

F. Seismic Hazards

Secondary hazards associated with ground shaking associated with earthquakes include surface rupture, ground failure, unstable soils and slopes (liquefaction). Each of these hazards is briefly described on the following pages.



Source: RCTLMA (2011), USGS

Figure 4.5-1
Earthquake Fault Zones

❑ Surface Rupture

Surface rupture can occur along pre-existing, known active fault traces; however, surface rupture also can splay or 'step from' known active faults or rupture along unidentified fault traces. No faulting was observed by NorCal Engineering during their field investigations of the Project site (NorCal 2007 5). As shown on Figure 4.5-1, no known faults are mapped trending through or toward the site. Therefore, there is no potential for surface rupture on the Project site.

❑ Liquefaction

Liquefaction is a phenomenon in which loose, saturated, relatively cohesion-less soil deposits lose shear strength during strong ground motions, which causes the soil to behave as a viscous liquid. Liquefaction is generally limited to the upper 50 feet of subsurface soils. Research and historical data indicate that loose granular soils below a near-surface groundwater table are most susceptible to liquefaction, while the stability of most clayey material is not adversely affected by vibratory motion. Therefore, in order for the potential effects of liquefaction to be manifested at the ground surface, soils generally must be granular, loose to medium dense, relatively saturated near the ground surface and subjected to a sufficient magnitude and duration of ground shaking. According to Moreno Valley General Plan FEIR Figure 5.6-2, *Seismic Hazards*, the Project site is not located within a potential liquefaction zone (City of Moreno Valley 2006b 5.6-5). In addition, based on NorCal Engineering's review of relevant literature, as well as a review of the subsurface exploration data and the estimated depth of groundwater at the Project site (>50 feet), the liquefaction potential at the Project site is determined to be low (NorCal 2007 6).

❑ Unstable Soils and Slopes

The Project site is generally flat and does not contain any steep natural or manufactured slopes. As such, the site is not susceptible to seismically induced landslides and rockfalls.

G. Slope and Soil Instability Hazards

❑ Soil Erosion

Erosion is the process by which the upper layers of the surface (such as soils) are worn and removed by the movement of water or wind. Soils with characteristics such as low permeability and/or low cohesive strength are more susceptible to erosion than those soils having higher permeability and cohesive strength. Additionally, the slope gradient on which a given soil is located also contributes to the soil's resistance to erosive forces. Because water is able to flow faster down steeper gradients, the steeper the slope on which a given soil is located, the more readily it will erode. The soils series on the Project site range from fair to good and poor to fair stability, which corresponds to a minimal to significant potential to water erosion (City of Moreno Valley 2006b 5.6-3).

Wind erosion can damage land and natural vegetation by removing soil from one place and depositing it in another. It mostly affects dry, sandy soils in flat, bare areas, but wind erosion may occur wherever soil is loose, dry, and finely granulated. Under the existing conditions, the Project site has potential to contribute windblown soil and sand because the site does not contain vegetative cover; the site is routinely disked and contains areas of loose and dry topsoil conditions (GLA 2011).

❑ Subsidence Potential

Subsidence is a gradual settling or sudden sinking of the ground surface. The principal causes of subsidence are aquifer-system compaction, drainage of organic soils, underground mining, and natural compaction. Laboratory testing of soil samples taken from the site by NorCal Engineering indicated that the site's near-surface fill soils are subject to consolidation when exposed to load (weight) increases. Therefore, the subject property has potential for shrinkage and subsidence (NorCal 2007 9).

❑ Expansive Soil Potential

Expansive soils are soils that exhibit cyclic shrink and swell patterns in response to variations in moisture content. Based on expansion index testing of soil samples taken from the Project site, it was determined that the site's soils have a very low expansion potential (NorCal 2007 15).

❑ Landslide Potential

The Project site and immediately surrounding properties are flat to gently sloping and contain no steep natural or manufactured slopes; thus, there is no potential for landslides to occur on or immediately adjacent to the site.

4.5.2 APPLICABLE ENVIRONMENTAL REGULATIONS

A. Alquist-Priolo Earthquake Fault Zoning Act (CA Pub. Res. Code §2621 et Seq.)

The Alquist-Priolo Special Studies Zone Act was signed into law in 1972 and renamed the Alquist-Priolo Earthquake Fault Zoning Act in 1994. The primary purpose of the Alquist-Priolo Act is to mitigate the hazard of fault rupture by prohibiting the location of structures for human occupancy across the trace of an active fault.

B. Seismic Hazards Mapping Act (CA Pub. Res. Code §2690 et Seq.)

The Seismic Hazards Mapping Act of 1990 is a statewide seismic hazard mapping and technical advisory program in California to assist cities and counties in fulfilling their responsibilities for protecting the public health and safety from the effects of strong ground shaking, liquefaction, landslides, or other ground failure and other seismic hazards caused by earthquakes. The California Geologic Survey (CGS) is the principal Sate implementing agency which has mapped out seismic zones requiring the completion of site-specific geotechnical investigations prior to construction of a project.

C. California Building Standards Code, Title 24

The California Building Standards Code (CCR, Title 24), also known as the CBSC or the "California Green Building Standards Code (CalGreen) that went into effect on January 1, 2011 is the standard from which California buildings derive appropriate building design standards. The International Building Code (IBC) used by the International Conference of Building Officials establishes design and construction standards for buildings and facilities. The CBSC incorporates the IBC as well as other uniform codes into its code standards.

D. South Coast Air Quality Management District, Rule 403

The South Coast Air Quality Management District (SCAQMD) is responsible for enforcing air pollution control measures in the South Coast Air Basin, within which the Project site is located. Rule 403 addresses blowing dust from construction sites and is applicable to the Project due to its potential to result in wind erosion during grading and construction activities.

E. Federal Water Pollution Control Act (Clean Water Act)

The Federal Water Pollution Control Act (also known as the Clean Water Act (CWA)) is the principal federal statute that addresses water resources. The provision of the CWA applicable to geology and soils is CWA Section 402, which applies to all construction sites of over one acre in size and, in part, serves to control the potential impacts of erosion. CWA Section 402 authorizes the National Pollutant Discharge Elimination System (NPDES) permit program that covers point sources of pollution discharging to a water body. The NPDES program requires operators of construction sites one acre or larger to prepare a Stormwater Pollution Prevention Plan (SWPPP) and obtain authorization to discharge stormwater under an NPDES construction stormwater permit.

F. Applicable Local Ordinances

- **Moreno Valley Ordinance No. 359**

In cases where a proposed project falls within an earthquake fault zone as shown on the maps prepared by the State Geologist, this ordinance requires compliance with all of the provisions of the Alquist-Priolo Act and the adopted policies and criteria of this ordinance.

- **Moreno Valley Ordinance No. 568**

Ordinance No. 568 would apply to the proposed Project and requires that all earth moving or grading operations requiring a grading permit also have an approved erosion control plan. The erosion control plan shall be submitted to the City Engineer for approval concurrent with the grading permit and/or grading plan submittal. The erosion control plan shall include details of protective measures necessary to protect adjoining public or private property from damage by erosion, flooding, or mud and/or debris deposits which may originate from the site or result from proposed grading operations.

- **Moreno Valley Ordinance No. 586**

Ordinance No. 586 would apply to the proposed Project and establishes standards and requirements for grading permits. This ordinance requires a soils engineering and engineering geology report (geotechnical report) be prepared for all grading projects. Recommendations contained in the approved geotechnical report are required to be incorporated into the grading plans and specifications and shall become conditions of the grading permit for the project.

- **Moreno Valley Ordinance No. 816**

Ordinance No. 816 would apply to the proposed Project and requires that all projects comply with California Building Codes and the International Building Codes. The City's Building and Safety Division is responsible for providing technical expertise in reviewing and enforcing the Building Code. These codes establish site-specific investigation requirements, construction standards, and inspection procedures to ensure that development does not pose a threat to the health, safety, and welfare of the public. The Building Code contains minimum baseline standards to guard against unsafe development.

4.5.3 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to geology and soils if the Project or any Project-related component would:

1. *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:*
   - i. *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;*
   - ii. *Strong seismic ground shaking;*
   - iii. *Seismic-related ground failure, including liquefaction; or*
   - iv. *Landslides.*
2. *Result in substantial soil erosion or the loss of topsoil;*
3. *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;*
4. *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property; or*
5. *Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.*

4.5.4 IMPACT ANALYSIS

Threshold 1: Would the Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:

- ***i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;***
- ***ii. Strong seismic ground shaking;***
- ***iii. Seismic-related ground failure, including liquefaction; or***
- ***iv. Landslides?***

❑ Rupture of Known Earthquake Fault

There are no known active or potentially active faults on the Project site or trending toward the Project site. In addition, the Project site is not located within a mapped Alquist-Priolo Earthquake Fault Zone (NorCal 2007 5). The closest active fault to the Project site is the San Jacinto Valley section of the San Jacinto Fault zone (Casa Loma Fault), which is located approximately eight (8) miles east of the Project site (California Department of Conservation 2010). There are no other conditions on-site or in the surrounding area that provide evidence of any other faults that could impact the Project site. Accordingly, the proposed Project would not expose people or structures to

potential adverse effects, including the risk of loss, injury or death, involving the rupture of a known earthquake fault. No impact would occur and mitigation is not required.

❑ Strong Seismic Ground Shaking

The Project site is located in a seismically active area of Southern California and is expected to experience moderate to severe ground shaking during the lifetime of the Project. This risk is not considered substantially different than that of other similar properties in the southern California area. As a mandatory condition of Project approval, the Project would be required to construct proposed structures in accordance with the CBC (Title 24) and the City of Moreno Valley Building Code. The CBC and the City of Moreno Valley Building Code have been designed to preclude significant adverse effects associated with strong seismic ground-shaking. In addition, the proposed Project would be required to adhere to the site-specific earthwork and geotechnical design recommendations contained within the Project's geotechnical report (refer to *Technical Appendix E*). With mandatory compliance with standard and site-specific design and construction measures, potential adverse impacts would be less than significant and the Project would not expose people or structures to substantial adverse effects, including loss, injury or death, involving seismic ground shaking. No adverse impacts would occur and mitigation would not be required.

❑ Seismic-Related Ground Failure

Based on the NorCal Engineering's review of the subsurface exploration data from the Project site, as well as a review of relevant literature, the liquefaction potential of the Project site is determined to be very low to low. In addition, the Project site is not identified within a City-designated liquefaction zone (City of Moreno Valley 2006b 5.6-5). As noted previously, the site would be designed in accordance with the latest applicable seismic safety guidelines, including the standard requirements of the CBSC and City of Moreno Valley Building Code, as well as the site-specific recommendations contained within the Project geotechnical report, which are anticipated to further reduce the risk of seismic-related ground failure. As such, significant impacts associated with seismic-related ground failure and/or liquefaction hazards would not occur and mitigation would not be required.

❑ Landslides

The Project site is relatively flat, as is the surrounding area. There are no hillsides or steep slopes on-site or in the vicinity of the Project site. Accordingly, the Project would be located within an area with low potential for landslides, and development on the subject property would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving landslides. Impacts would be less than significant and mitigation would not be required.

Threshold 2: Would the Project result in substantial soil erosion or the loss of topsoil?

❑ Temporary Construction-Related Activities

The Project site is subject to some wind and water erosion under existing conditions, due to its sparse vegetative cover. Proposed grading activities would expose underlying soils at the Project site, which would increase erosion susceptibility during grading and construction activities. Exposed soils, along with any fill materials being stockpiled on the site for use in the grading operation, would be subject to erosion during rainfall events or high winds due to the removal of stabilizing vegetation and exposure of these erodible materials to wind and water. Erosion by water would be greatest

during the first rainy season after grading (before landscaping becomes established). Erosion by wind would be highest during periods of high wind speeds. The property is generally flat and erosion potential is not substantial.

Pursuant to the requirements of the State Water Resources Control Board, the Project applicant is required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for construction activities. The NPDES permit is required for all projects that include construction activities, such as clearing, grading, and/or excavation that disturb at least one acre of total land area. This NPDES Permit requires the Project applicant to prepare and submit to the City for approval a Project-specific Storm Water Pollution Prevention Plan (SWPPP) and Water Quality Management Plan (WQMP). The SWPPP and WQMP must identify and implement an effective combination of erosion control and sediment control measures (*i.e.*, Best Management Practices) to reduce or eliminate discharge to surface water from storm water and non-storm water discharges. Adherence to the requirements noted in the Project's required WQMP (refer to *Technical Appendix I*) and site-specific SWPPP would ensure that potential construction-related impacts associated with water erosion would be less than significant.

During grading and other construction activities involving soil exposure or the transport of earth materials, City of Moreno Valley Ordinance No. 568, which establishes requirements for the control of erosion during construction (including wind erosion), would apply to the Project. In addition, requirements for the reduction of particulate matter in the air would apply, which are discussed in EIR Subsection 4.2, *Air Quality*, and addressed by SCAQMD Rule 403. With mandatory compliance to these regulatory requirements, the potential for wind erosion impacts would be less than significant.

❑ Long-Term Operational Activities

Following construction, wind and water erosion on the Project site would be minimized, as the areas disturbed during construction would be landscaped or covered with impervious surfaces and drainage would be controlled through a storm drain system. As discussed in detail in EIR Subsection 4.8, *Hydrology and Water Quality*, the Project would not increase the rate or amount of runoff leaving the site, as compared to existing conditions. As part of the Project, the City is requiring the construction of stormwater facilities (such as detention basins) to reduce flows to pre-development conditions. As discussed in Subsection 4.8, construction of detention/water quality basins on the site would ensure that post-development rates and amounts of runoff are similar to those occurring under existing conditions. Accordingly, implementation of the proposed Project would not increase the risk of siltation or erosion in stormwater discharged from the Project site. In addition, the WQMP for the Project (refer to *Technical Appendix I*) requires post-construction measures to ensure ongoing erosion protection. Compliance with the WQMP would be required as a condition of Project approval and long-term maintenance of on-site water quality features would be required. Therefore, implementation of the proposed Project would not significantly increase the risk of erosion on or off site in the long term. Impacts would be less than significant and mitigation would not be required.

Threshold 3: ***Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?***

The Project site is flat and gently sloping and contains no substantial natural or manmade slopes. Based on the geotechnical investigation prepared by NorCal Engineering, there is no evidence of on-site landslides on or near the Project site, nor are there any exposed boulders that could result in rockfall hazards. Slopes constructed as part of the Project's proposed detention basins would be engineered for long term stability. Accordingly, impacts associated with landslides and rockfall hazards would be less than significant.

Ground subsidence refers to the sudden sinking or gradual downward settling and compaction of soil and other surface material with little or no horizontal motion. Based on laboratory testing of subsurface soils from the Project site, NorCal Engineering determined that the near surface soils have potential for shrinkage and subsidence. However, the Project's geotechnical report indicates that the site's shrinkage and subsidence potential would be attenuated through removal of near surface soils down to competent materials and replacement with properly compacted fill, which is included as a recommendation in the Project geotechnical report (NorCal 2007 9). The proposed Project would be required to incorporate the recommendations contained within the Project geotechnical report into the grading plan to implement the Project, pursuant to Moreno Valley Ordinance No. 586. The City of Moreno Valley Community Development Department (Land Development Division) would enforce Ordinance No. 586 during future review of implementing plans and permits, and would incorporate the recommendations contained within the Project's geotechnical report (*Technical Appendix E*) into the conditions of approval for the implementing grading plan. Accordingly, with mandatory compliance with the earthwork recommendations provided in the Project geotechnical report, impacts due to shrinkage or subsidence would be less than significant.

Finally, lateral spreading is primarily associated with liquefaction hazards, and occurs when the ground slides on a buried liquefied layer, potentially resulting in damage to structures placed above such layers. As noted above under the discussion of Threshold 1, the potential for liquefaction at the site is considered low based on a site-specific analysis conducted by NorCal Engineering (NorCal 2007 6). Accordingly, impacts associated with lateral spreading would not occur.

Threshold 4: ***Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?***

The results of soil testing conducted by NorCal Engineering indicate that near surface soils possess a very low expansion potential. The majority of the site's near surface soils consist of silty sands and sandy silts that generally possess a very low expansion potential and exhibit relatively good to moderate shear strength characteristics. No special design considerations related to expansive soils would be warranted for the Project (NorCal 2007 15). Accordingly, the proposed Project would not be located on expansive soil and would not create a substantial risk to life or property. Impacts would be less than significant and mitigation would not be required.

Threshold 5:	***Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?***

Sewer service is available to the Project site under pre-development conditions, and the Project proposes to connect to an existing sewer line adjacent to and north of the Perris Valley Storm Drain Channel (adjacent to the southern portion of the Project site, see Figure 3-8, *Conceptual Sewer Plan*). The Project also would connect to existing sewer conveyance infrastructure located off site, near the intersection of Heacock Street and Cardinal Avenue. The Project would not install septic tanks or alternative wastewater disposal systems on the Project site. Accordingly, no impact would occur.

4.5.5 CUMULATIVE IMPACT ANALYSIS

As noted in the foregoing analysis of the Project's direct impacts, all potential Project-specific impacts related to geology and soils would be below the threshold of significance identified Subsection 4.5.3 through conformance with the geotechnical recommendations contained within the Project geotechnical report (*Technical Appendix E*) and compliance with standard regulatory requirements as part of the Project's design.

With exception of erosion hazards, potential geologic and soils effects are inherently restricted to the areas proposed for development and would not contribute to cumulative impacts associated with other existing, planned, or proposed development. That is, issues including fault rupture, seismic ground shaking, liquefaction, landslides, and expansive soils would involve effects to (and not from) the proposed development, and are specific to on-site conditions. Accordingly, addressing these potential hazards for the proposed development would involve using measures to conform to existing requirements, and/or site-specific design and construction efforts that have no relationship to, or impact on, off-site areas. Because of the site-specific nature of these potential hazards and the measures to address them, there would be no connection to similar potential issues or cumulative effects to or from other properties.

As discussed under Threshold 2, during both near-term construction and long-term operation, measures would be incorporated into the Project's design to ensure that significant erosion hazards do not occur. Other developments within the cumulative study area would be required to comply with similar requirements, such as the need to obtain an NPDES permit and mandatory compliance with the resulting SWPPPs and WQMPs. All development projects in the cumulative study area identified in Subsection 4.0.2 also would be required to demonstrate that measures have been incorporated to ensure that development does not result in substantial increases in the amount or rate of runoff, which could in turn increase soil erosion. All projects in the cumulative study area also would be required to comply with Moreno Valley Ordinance No. 568 and SCAQMD Rule 403, which would preclude wind-related erosion hazards during construction. Therefore, because the Project would not result in significant erosion impacts, and because other projects within the cumulative study area would be subject to similar requirements to control erosion hazards during construction and long-term operation, cumulative impacts associated with wind and water erosion hazards are evaluated as less than significant.

4.5.6 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions that the Project would be required to adhere to. Compliance with these measures was assumed throughout the above analysis of impacts related to geology and soils.

PR 4.5-1 Structures are required to be constructed in accordance with the City of Moreno Valley Building Code (City of Moreno Ordinance No. 816) and California Code of Regulations, Title 24, Part 2, the California Green Building Standards Code, which provides minimum standards for building design.

PR 4.5-2 All grading and earthwork activities are required to be performed in accordance with all applicable requirements of the City of Moreno Valley grading and excavation code (City of Moreno Valley Ordinance No. 586).

PR 4.5-3 The Project is required to obtain coverage under the General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit, 99-08-DWQ). The Permit will require the preparation and implementation of a Stormwater Pollution Prevention Plan and implementation of Best Management Practices.

PR 4.5-4 During grading and construction activities, the construction contractor(s) are required to comply with the requirements of SCAQMD Rule 403, Fugitive Dust.

PR 4.5-5 The Project is required by the City of Moreno Valley to comply with all recommendations given in its geotechnical study (*Technical Appendix E* to this EIR).

4.5.7 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: Less than Significant Impact. The Project would not expose people or structures to substantial adverse seismic risks. There are no known active or potentially active faults on the Project site or trending toward the Project site. On-site soils are relatively stable. The risk of liquefaction is low. There is no risk of landslide. As with all properties within the Southern California region, the Project site is subject to seismic ground shaking associated with earthquakes. However, mandatory compliance with local and state ordinances and building codes would ensure that on-site structures are developed as required to attenuate the risk to life or property to less than significant levels.

Threshold 2: Less than Significant Impact. The Project would not result in substantial soil erosion or loss of topsoil. Soils the site would be exposed to water and wind erosion during grading and site development, but with the application of mandatory regulatory requirements, including the preparation and implementation of a WQMP, a SWPPP, and compliance to applicable City ordinances, erosion impacts on and off site would not be substantial and less than significant.

Threshold 3: Less than Significant Impact. The Project would not cause geologic unit or soil instability. There is no potential for the Project to cause rockfalls, landslides, or lateral spreading. Although soils on the site have the potential for soil shrinkage and settlement, any potential adverse effects associated with such conditions would be less than significant with mandatory compliance

with the recommendations provided within the Project geotechnical study, including requirements to remove and re-compact areas where such soil conditions exist.

Threshold 4: Less than Significant Impact. The Project would not be located on expansive soils. Near surface soils on the Project site possess a very low expansion potential.

Threshold 5: No Impact. The Project would not install septic tanks or alternative wastewater disposal systems. Accordingly, no impact would occur associated with soil compatibility for waste disposal systems.

4.5.8 MITIGATION

Impacts would not be significant; therefore, mitigation measures would not be required.

4.6 GREENHOUSE GAS EMISSIONS

This subsection assesses the Project's potential to generate greenhouse gas emissions that could contribute to Global Climate Change and its associated environmental effects. The analysis in this subsection is based in part on information contained in the report titled, "March Business Center Greenhouse Gas Analysis," prepared by Urban Crossroads, Inc. and dated October 31, 2011 and included as *Technical Appendix F* to this EIR.

4.6.1 EXISTING CONDITIONS

A. Introduction to Global Climate Change

Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. Debate exists within the scientific community regarding the extent to which GCC is occurring naturally or as a result of human activity. Some data suggests that GCC has occurred naturally over the course of thousands or millions of years, as in the case of an ice age. However, other scientists believe that the climate shift taking place since the industrial revolution (1900) is occurring at a quicker rate and magnitude than in the past (Urban Crossroads 2011c 13).

Scientific evidence suggests that GCC is the result of increased concentrations of greenhouse gases (GHGs) in the earth's atmosphere. These gases include water vapor, CO_2 (carbon dioxide), N_2O (nitrous oxide), CH_4 (methane), hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the Earth's atmosphere, but prevent radioactive heat from escaping, thus warming the earth's atmosphere. These gases that trap heat in the atmosphere are referred to collectively in this EIR as GHGs, which are released into the atmosphere by both natural and anthropogenic (human) activity. Without the natural greenhouse gas effect, the Earth's average temperature would be approximately 61° Fahrenheit (F) cooler than it is currently (Urban Crossroads 2011c 13-15).

An individual project like the proposed March Business Center cannot generate enough GHG emissions to make a discernible change in global climate. However, the proposed Project may participate in the potential for GCC through incremental contribution of GHGs when considered in combination with other worldwide sources of GHGs (Urban Crossroads 2011c 13).

B. Greenhouse Gases

Emissions of CO_2, N_2O, and CH_4 (carbon dioxide, nitrous oxide and methane) are the focus of evaluation in this subsection because these gasses are the primary contributors to GCC from development projects. Although other substances such as fluorinated gases also contribute to GCC, sources of fluorinated gases are not well defined and no accepted emissions factors or methodology exist to accurately calculate these gases (Urban Crossroads 2011c 16).

Greenhouse gases have varying global warming potential (GWP) values; GWP values represent the potential of a gas to trap heat in the atmosphere. Carbon dioxide is used as the reference gas for GWP, and thus has a GWP of 1. The atmospheric lifetime and GWP of selected greenhouse gases are summarized in Table 4.6-1, *Global Warming Potentials (GWP) and Atmospheric Lifetime of Select GHGs*. As shown in the table below, GWP ranges from 1 for carbon dioxide to 23,900 for sulfur hexafluoride (Urban Crossroads 2011c 16).

Table 4.6-1 Global Warming Potentials (GWP) and Atmospheric Lifetime of Select GHGs

GAS	ATMOSPHERIC LIFETIME (YEARS)	GWP (100 YEAR TIME HORIZON)
Carbon Dioxide (CO_2)	50-200	1
Methane ($CH_{4)}$	12 ± 3	21
Nitrous Oxide (N_2O)	120	310
HFC-23	264	11,700
HFC-134a	14.6	1,300
HFC-152a	1.5	140
PFC: Tetrafluoromethane (CH_4)	50,000	6,500
PFC: Hexafluoroethane (C_2F_6)	10,000	9,200
Sulfur Hexafluoride (SF_6)	3,200	23,900

Source: Urban Crossroads 2011c, Table 2-2.

Provided below is a description of the various gases that contribute to GCC. For more information about these gasses and their associated human heath effects, refer to *Technical Appendix F*, pages 12-21 and the reference sources cited therein.

- Water Vapor. Water vapor (H_2O) is the most abundant, important, and variable greenhouse gas in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. The feedback loop in which water is involved is critically important to projecting future climate change.

  As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation, thereby allowing less energy to reach the Earth's surface and heat it up. There are no human health effects from water vapor itself; however, when some pollutants come in contact with water vapor, they can dissolve and the water vapor can then act as a pollutant-carrying agent.

- Carbon Dioxide. Carbon dioxide (CO_2) is an odorless and colorless GHG that is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Manmade sources include: the burning of coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s, the sort of human activity that increases CO_2 emissions has increased dramatically. As an example, prior to the industrial revolution, CO_2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370

ppm, an increase of more than 30%. Exposure to CO_2 in high concentrations can cause human health effects, but outdoor levels are not high enough to adversely affect human health.

- Methane. Methane (CH_4) is an extremely effective absorber of radiation, though its atmospheric concentration is less than CO_2 and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs. Methane has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning. No human health effects are known to occur from exposure to methane

- Nitrous Oxide. Nitrous oxide (N_2O), also known as laughing gas, is a colorless greenhouse gas that can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage). Concentrations of nitrous oxide began to rise in the atmosphere at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb). Nitrous oxide is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, (e.g., in whipped cream bottles). It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. Nitrous oxide can be transported into the stratosphere, be deposited on the Earth's surface, and be converted to other compounds by chemical reaction.

- Chlorofluorocarbons. Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

- Hydrofluorocarbons. Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). Prior to 1990, the only significant emissions were of HFC-23. HFC-134a emissions are increasing due to its use as a refrigerant. The U.S. EPA estimates that concentrations of HFC-23 and HFC-134a are now about 10 parts per trillion (ppt) each; and that concentrations of HFC-152a are about 1 ppt. No human health effects are known to result from exposure to HFCs, which are manmade for applications such as automobile air conditioners and refrigerants.

- Perfluorocarbons. The two primary sources of perfluorocarbons (PFCs) are aluminum production and semiconductor manufacture PFCs have stable molecular structures and do not

break down through chemical processes in the lower atmosphere. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). The U.S. EPA estimates that concentrations of CF_4 in the atmosphere are over 70 ppt. No health effects are known to result from exposure to PFCs.

- Sulfur Hexafluoride. Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900). The U.S. EPA indicates that concentrations in the 1990s were about 4 ppt. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

C. *Greenhouse Gas Emissions Inventories*

❑ Global

Worldwide anthropogenic (man-made) GHG emissions are tracked by the Intergovernmental Panel on Climate Change for industrialized nations (referred to as Annex I nations) and developing nations (referred to as Non-Annex I nations). Man-made GHG emissions data for Annex I nations are available through 2009. Man-made GHG emissions data for Non-Annex I nations are available through 2007. For the Year 2009, the sum of GHG emissions totaled approximately 40,084 million metric tones of carbon dioxide equivalent ($MMTCO_2e$). Emissions from the top five countries and the European Union accounted for approximately 65% of the total global GHG emissions, according to the most recently available data (see Table 4.6-2, *Top GHG Producer Countries and the European Union*). The GHG emissions in more recent years may differ from the inventories presented in Table 4.6-2; however, the data is representative of currently available inventory data (Urban Crossroads 2011c 13-15).

Table 4.6-2 Top GHG Producer Countries and the European Union

EMITTING COUNTRIES	GHG EMISSIONS ($MMTCO_2E$)
China	6,703
United States	6,608
European Union	8,338
Russian Federation	2,159
India	1,410
Japan	1,209
Total	**26,427**

Source: Urban Crossroads 2011c, Table 2-1.

❑ United States

As noted in Table 4.6-2, the United States was the number two producer of GHG emissions in 2009. The primary greenhouse gas emitted by human activities in the United States was carbon dioxide (CO_2), representing approximately 83% of the total GHGs. Carbon dioxide from fossil fuel combustion, the largest source of United States GHG emissions, accounted for approximately 78% of the country's 2009 GHG emissions (Urban Crossroads 2011c 14).

❑ State of California

The California Air Resources Board (CARB) compiles GHG inventories for the State of California. Based upon the 2008 GHG inventory data (i.e., the latest year for which data are available), California emitted 474 $MMTCO_2e$ including emissions resulting from imported electrical power. Based on the CARB inventory data and GHG inventories compiled by the World Resources Institute, California's total statewide GHG emissions rank second in the United States (Texas is number one) with emissions of 417 $MMTCO_2e$, excluding emissions related to imported power (Urban Crossroads 2011c 15).

California's rate of growth of greenhouse gas emissions is slowing. Despite a population increase of 16% between 1990 and 2004, and based on a review of GHG inventories for those years, California had significantly slowed the rate of growth of GHG emissions. This is in part due to the implementation of energy efficiency programs as well as adoption of strict emission controls (Urban Crossroads 2011c 16). These types of controls have been maintained in California and strengthened with additional controls imposed since 2004.

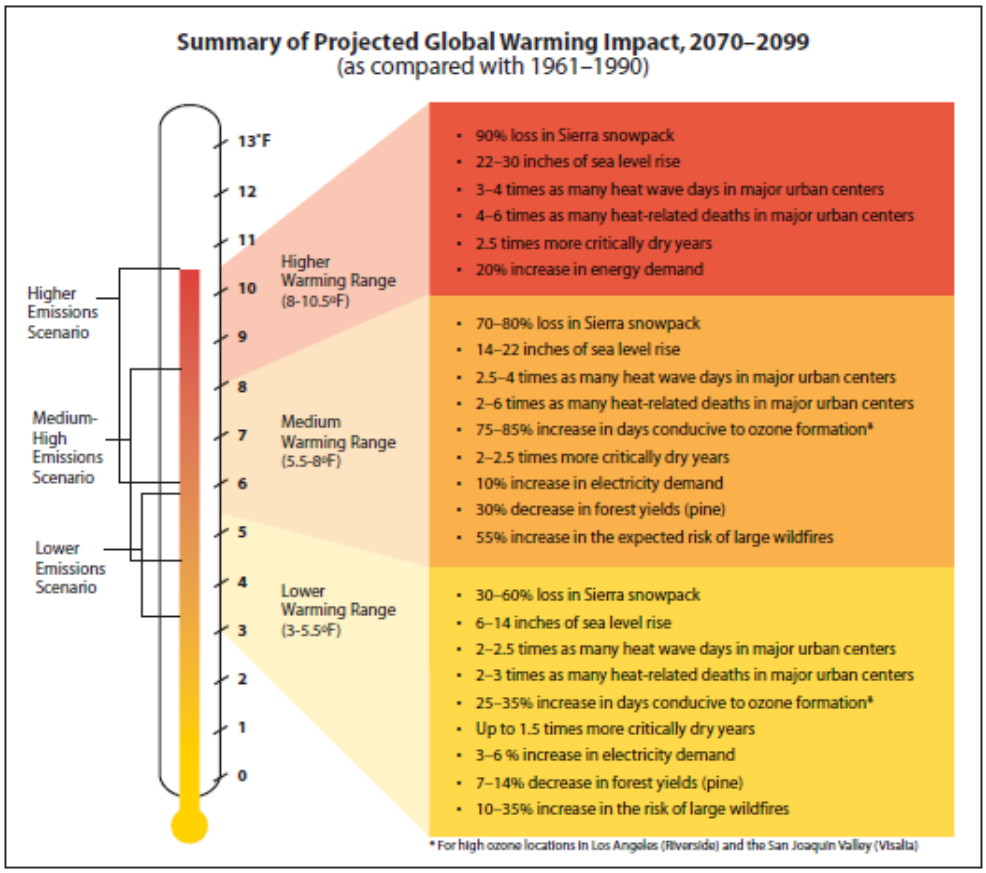
D. Effects of Climate Change in California

The California Environmental Protection Agency (CalEPA) published a report titled "Scenarios of Climate Change in California: An Overview" (Climate Scenarios report) in February 2006, that is generally instructive about the statewide impacts of global warming. The Climate Scenarios report uses a range of emissions scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) to project a series of potential warming ranges (i.e., temperature increases) that may occur in California during the 21st century: lower warming range (3.0-5.5^{o}F); medium warming range (5.5-8.0^{o}F); and higher warming range (8.0-10.5^{o}F). The Climate Scenarios report then presents an analysis of future climate in California under each warming range, that while uncertain, present a picture of the impacts of global climate change trends in California (Urban Crossroads 2011c 20).

In addition, most recently on August 5, 2009, the State's Natural Resources Agency released a public review draft of its "California Climate Adaptation Strategy" report that details many vulnerabilities arising from climate change with respect to matters such as temperature extremes, sea level rise, wildfires, floods and droughts and precipitation changes. This report responds to the Governor's Executive Order S-13-2008 that called on state agencies to develop California's strategy to identify and prepare for expected climate impacts (Urban Crossroads 2011c 20-21).

According to the reports, substantial temperature increases arising from increased GHG emissions worldwide could result in a variety of impacts to the people, economy, and environment of California, with the severity of the impacts depending upon actual future emissions of GHGs and associated warming. Figure 4.6-1, *Summary of Projected Global Warming Impact, 2070-2099*, presents the potential impacts of global warming.

Figure 4.6-1 Summary of Projected Global Warming Impact, 2070-2099



Source: Urban Crossroads 2011c, Figure 1.

Under the emissions scenarios of the Climate Scenarios and California Climate Adaption Strategy reports, the impacts of global warming in California have the potential to include, but are not limited to, the following areas. For more information, refer to *Technical Appendix F*, pages 12-21 and the reference sources cited therein.

❑ Public Health

The potential human health effects related directly to GHG emissions (including carbon dioxide, methane, and nitrous oxide as they relate to development projects such as the proposed Project) are still being debated in the scientific community. The contribution that these GHGs make to GCC have the potential to cause adverse effects to human health in various ways. Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35% under the lower warming range, to 75% to 85% under the medium warming range. In addition, local air quality standards could be violated and air quality could be further compromised by increases in wildfires. In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. Poor air quality and rising temperatures could increase human health effects and death associated with dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress. Scientists also purport that higher ambient temperatures would increase disease survival rates and

result in more widespread disease. Shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas, also could affect the human population.

❑ Water Resources

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages. Additionally, if temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70% to 90%. The loss of snowpack could pose challenges to water managers, hamper hydropower generation, and adversely affect winter tourism. The State's water supplies are also at risk from rising sea levels. An influx of salt water could degrade California's estuaries, wetlands, and groundwater aquifers and be a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply.

❑ Agriculture

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. California farmers could face water shortages. Crops may grow faster and be more susceptible to pests and disease outbreaks due to higher atmospheric temperatures. Faster plant growth could worsen the quantity and quality of yield for some crops such as wine grapes, fruit, and nuts. Although higher CO_2 levels can stimulate plant production and increase plant water-use efficiency, there may still be a water shortage for the agricultural industry. In addition, continued global climate change could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants.

❑ Forests and Landscapes

Global climate change has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55%, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state. Continued global climate change also has the potential to alter natural ecosystems and biological diversity, including a decrease in forest productivity, as a result of increasing temperatures.

❑ Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12 to 14 inches.

E. Regulatory Setting

Below is an account of the regulatory programs, policies, laws, and regulations that are applicable to GHG emissions and GLC in California. For more information, refer to *Technical Appendix F*, pages 22-33 and the reference sources cited therein.

❑ International Regulation and the Kyoto Protocol

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling greenhouse gas emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The Plan currently consists of more than 50 voluntary programs for member nations to adopt.

The Kyoto protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. Some have estimated that if the commitments outlined in the Kyoto protocol are met, global GHG emissions could be reduced an estimated 5% from 1990 levels during the first commitment period of 2008-2012. Notably, while the United States is a signatory to the Kyoto protocol, Congress has not ratified the Protocol and the United States is not bound by the Protocol's commitments. In December 2009, international leaders from 192 nations met in Copenhagen to address the future of international climate change commitments post-Kyoto.

❑ Federal Regulation and the Clean Air Act

Coinciding with the 2009 meeting of international leaders in Copenhagen, on December 7, 2009, the U.S. Environmental Protection Agency (EPA) issued an Endangerment Finding under §202(a) of the Clean Air Act, opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the Clean Air Act. To date, the EPA has not promulgated regulations on GHG emissions, but it has begun to develop them.

Previously the EPA had not regulated GHGs under the Clean Air Act because it asserted that the Act did not authorize it to issue mandatory regulations to address GCC and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In Massachusetts v. Environmental Protection Agency et al. (127 S. Ct. 1438 [2007]), however, the U.S. Supreme Court held that GHGs are pollutants under the Clean Air Act and directed the EPA to decide whether the gases endangered public health or welfare. The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the U.S. Congress adopts major climate change legislation. The EPA's Endangerment Finding paves the way for federal regulation of GHGs with or without Congress.

Although global climate change did not become an international concern until the 1980s, efforts to reduce energy consumption began in California in response to the oil crisis in the 1970s, resulting in the incidental reduction of greenhouse gas emissions. In order to manage the state's energy needs and promote energy efficiency, AB 1575 created the California Energy Commission (CEC) in 1975.

❑ Title 24 Energy Standards

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The latest revisions were adopted in 2008 and became effective on January 1, 2010.

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code.

❑ California Assembly Bill No. 1493 (AB 1493)

AB 1493 requires CARB to develop and adopt the nation's first greenhouse gas emission standards for automobiles. The Legislature declared in AB 1493 that global warming was a matter of increasing concern for public health and environment in California. Further, the legislature stated that technological solutions to reduce greenhouse gas emissions would stimulate the California economy and provide jobs.

To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) adding GHG emission standards to California's existing motor vehicle emission standards in 2004. Amendments to CCR Title 13 Sections 1900 (CCR 13 1900) and 1961 (CCR 13 1961) and adoption of §1961.1 (CCR 13 1961.1) require automobile manufacturers to meet fleet average GHG emission limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes beginning with the 2009 model year. Emission limits are further reduced each model year through 2016.

In December 2004 a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against CARB to prevent enforcement of CCR 13 1900 and CCR 13 1961 as amended by AB 1493 and CCR 13 1961.1 (*Central Valley Chrysler-Jeep et al. v. Catherine E. Witherspoon, in her official capacity as Executive Director of the California Air Resources Board, et al.*). The suit, heard in the U.S. District Court for the Eastern District of California, contended that California's implementation of regulations that in effect regulate vehicle fuel economy violates various federal laws, regulations, and policies. In January 2007, the judge hearing the case accepted a request from the State Attorney General's office that the trial be postponed until a decision is reached by the U.S. Supreme Court on a separate case addressing GHGs. In the Supreme Court Case, *Massachusetts vs. EPA*, the primary issue in question is whether

the federal CAA provides authority for U.S. EPA to regulate CO_2 emissions. In April 2007, the U.S. Supreme Court ruled in Massachusetts' favor, holding that GHGs are air pollutants under the CAA. On December 11, 2007, the judge in the Central Valley Chrysler-Jeep case rejected each plaintiff's arguments and ruled in California's favor. On December 19, 2007, the U.S. EPA denied California's waiver request. California filed a petition with the Ninth Circuit Court of Appeals challenging U.S. EPA's denial on January 2, 2008.

The Obama administration subsequently directed the USEPA to re-examine their decision. On May 19, 2009, challenging parties, automakers, the State of California, and the federal government reached an agreement on a series of actions that would resolve these current and potential future disputes over the standards through model year 2016. In summary, the USEPA and the U.S. Department of Transportation agreed to adopt a federal program to reduce GHGs and improve fuel economy, respectively, from passenger vehicles in order to achieve equivalent or greater greenhouse gas benefits as the AB 1493 regulations for the 2012–2016 model years. Manufacturers agreed to ultimately drop current and forego similar future legal challenges, including challenging a waiver grant, which occurred on June 30, 2009. The State of California committed to (1) revise its standards to allow manufacturers to demonstrate compliance with the fleet-average GHG emission standard by "pooling" California and specified State vehicle sales; (2) revise its standards for 2012–2016 model year vehicles so that compliance with USEPA-adopted GHG standards would also comply with California's standards; and (3) revise its standards, as necessary, to allow manufacturers to use emissions data from the federal CAFE program to demonstrate compliance with the AB 1493 regulations. Both of these programs are aimed at light-duty auto and light-duty trucks.

❑ Executive Order S-3-05

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra's snow pack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 1990 level by 2020, and to 80% below the 1990 level by 2050. The Executive Order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The Secretary also is required to submit biannual reports to the Governor and state Legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of the CalEPA created a Climate Action Team (CAT) made up of members from various state agencies and commission. CAT released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

❑ California Assembly Bill 32 (AB 32)

In September 2006, Governor Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. This reduction is to be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG

emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

In November 2007, CARB completed its estimates of 1990 GHG levels. Net emission 1990 levels were estimated at 427 MMTs (emission sources by sector were: transportation – 35%; electricity generation – 26%; industrial – 24%; residential – 7%; agriculture – 5%; and commercial – 3%). Accordingly, 427 MMTs of CO_2 equivalent was established as the emissions limit for 2020. For comparison, CARB's estimate for baseline GHG emissions was 473 MMT for 2000 and 532 MMT for 2010. "Business as usual" conditions (without the 30% reduction to be implemented by CARB regulations) for 2020 were projected to be 596 MMTs.

In December 2007, CARB approved a regulation for mandatory reporting and verification of GHG emissions for major sources. This regulation covered major stationary sources such as cement plans, oil refineries, electric generating facilities/providers, and co-generation facilities, which comprise 94% of the point source CO_2 emissions in the State.

On December 11, 2008, CARB adopted a scoping plan to reduce GHG emissions to 1990 levels. The Scoping Plan's recommendations for reducing GHG emissions to 1990 levels by 2020 include emission reduction measures, including a cap-and-trade program linked to Western Climate Initiative partner jurisdictions, green building strategies, recycling and waste-related measures, as well as Voluntary Early Actions and Reductions. Implementation of individual measures must begin no later than January 1, 2012, so that the emissions reduction target can be fully achieved by 2020.

Table 4.6-3, *Scoping Plan GHG Reduction Measures Toward 2020 Target*, shows the proposed reductions from regulations and programs outlined in the Scoping Plan. While local government operations were not accounted for in achieving the 2020 emissions reduction, local land use changes are estimated to result in a reduction of 5 $MMTCO_2e$, which is approximately 3% of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments will play in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15% of 2006 levels by 2020 to ensure that municipal and community-wide emissions match the state's reduction target. According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2% through land use planning, resulting in a potential GHG reduction of 2 MMTCO2e (or approximately 1.2% of the GHG reduction target).

Table 4.6-3 Scoping Plan GHG Reduction Measures Toward 2020 Target

RECOMMENDED REDUCTION MEASURES	REDUCTIONS COUNTED TOWARD 2020 TARGET OF 169 MMT CO_2E	PERCENTAGE OF STATEWIDE 2020 TARGET
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33% by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets[1]	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	**146.7**	**87%**
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	**27.3**	**16%**
Total Reductions Counted toward 2020 Target	**174**	**100%**
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined[2]	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	**42.8**	**NA**

1. Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.
2. According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2% through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO_2e (or approximately 1.2% of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 Target.

Source: Urban Crossroads 2011c, Table 2-3. MMTons CO_2e: million metric tons of CO_2e.

❑ California Senate Bill No. 1368 (SB 1368)

In 2006, the State Legislature adopted Senate Bill 1368 (SB 1368), which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission (CPUC) to adopt a greenhouse gas emission performance standard (EPS) for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Due to the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants. Accordingly, the new law will effectively prevent California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to dramatically lower greenhouse gas emissions associated with California

energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out of state producers that cannot satisfy the EPS standard required by SB 1368.

❑ Senate Bill 97 (SB 97)

Pursuant to the direction of SB 97, OPR released preliminary draft CEQA Guideline amendments for greenhouse gas emissions on January 8, 2009, and submitted its final proposed guidelines to the Secretary for Natural Resources on April 13, 2009. The Natural Resources Agency adopted the Guideline amendments and they became effective on March 18, 2010.

Of note, the new guidelines state that a lead agency shall have discretion to determine whether to use a quantitative model or methodology, or in the alternative, rely on a qualitative analysis or performance based standards. CEQA Guideline § 15064.4(a) state that "[a] lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use… ; or (2) Rely on a qualitative analysis or performance based standards."

CEQA emphasizes that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (See CEQA Guidelines §15130[f]). Section 15064.4(b) of the CEQA Guidelines provides direction for lead agencies for assessing the significance of impacts of greenhouse gas emissions. The CEQA Guideline amendments do not identify a threshold of significance for greenhouse gas emissions, nor do they prescribe assessment methodologies or specific mitigation measures. Instead, they call for a "good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." The amendments encourage lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies' discretion to make their own determinations based upon substantial evidence.

❑ Executive Order S-01-07

On January 18, 2007 California Governor Schwarzenegger, through Executive Order S-01-07, mandated a statewide goal to reduce the carbon intensity of California's transportation fuel by at least 10% by 2020. The order also requires that a California specific Low Carbon Fuel Standard be established for transportation fuels.

❑ Senate Bills 1078 and 107 and Executive Order S-14-08

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20% of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008 Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Energy Standard to 33% renewable power by 2020.

❑ Senate Bill 375 (SB 375)

SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPO's regional transportation plan. CARB, in consultation with MPOs, will provide each affected region

with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight (8) years but can be updated every four (4) years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects will not be eligible for funding programmed after January 1, 2012.

❑ CARB's Preliminary Draft Staff Proposal for Interim Significance Thresholds

Separate from its Scoping Plan approved in December of 2008, CARB issued a Staff Proposal in October 2008, as its first step toward developing recommended statewide interim thresholds of significance for GHGs that may be adopted by local agencies for their own use. CARB staff's objective in this proposal is to develop a threshold of significance that will result in the vast majority (approximately 90% statewide) of GHG emissions from new industrial projects being subject to CEQA's requirement to impose feasible mitigation. The proposal does not attempt to address every type of project that may be subject to CEQA, but instead focuses on common project types that, collectively, are responsible for substantial GHG emissions – specifically, industrial, residential, and commercial projects. CARB is developing these thresholds in these sectors to advance climate objectives, streamline project review, and encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state. These draft thresholds are under revision in response to comments. There is currently no timetable for finalized thresholds at this time.

As currently proposed by CARB, the threshold consists of a quantitative threshold of 7,000 metric tons (MT) of CO_2e per year for operational emissions (excluding transportation), and performance standards for construction and transportation emissions. These performance standards have not yet been developed. CARB's proposal was not final at the time that the NOP for this EIR was released for public review (June 2011) and thus cannot be applied to the Project. Further, CARB's proposal sets forth draft thresholds for industrial projects that have high operational stationary GHG emissions, such as manufacturing plants, or uses that utilize combustion engines. Mobile source emissions are not addressed. The GHG emissions that would be emitted by the Project evaluated in this EIR would be mostly from mobile sources, and as such, the CARB proposal is not applicable to the Project.

❑ South Coast Air Quality Management District Recommendations for Significance Thresholds

In April 2008, the South Coast Air Quality Management District (SCAQMD), in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents, convened a "GHG CEQA Significance Threshold Working Group." The goal of the working group is to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until CARB (or some other state agency) develops statewide guidance on assessing the significance of GHG emissions under CEQA.

Initially, SCAQMD staff presented the working group with a significance threshold that could be applied to various types of projects: residential; non-residential; industrial; etc. However, the threshold is still under development. In December 2008, staff presented the SCAQMD Governing Board with a significance threshold for stationary source projects where it is the lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons of carbon dioxide equivalent ($MTCO_2e$) as a screening numerical threshold for stationary sources.

In September 2010, the Working Group released additional revisions which recommended a threshold of 3,500 $MTCO_2e$ for residential projects, 1,400 $MTCO_2e$ for commercial projects, and 3,000 $MTCO_2e$ for mixed use projects; additionally, the working group identified project-level efficiency target of 4.8 $MTCO_2e$ per service population as a 2020 target and 3.0 $MTCO_2e$ per service population as a 2035 target. The recommended plan-level target for 2020 was 6.6 $MTCO_2e$ and the plan level target for 2035 was 4.1 $MTCO_2e$. The SCAQMD has not announced when staff is expecting to present a finalized version of these thresholds to the Governing Board. The SCAQMD has also adopted Rules 2700, 2701, and 2702 that address GHG reductions; however, these rules are currently applicable to boilers and process heaters, forestry, and manure management projects that have no applicability to the Project evaluated in this EIR.

- **City of Moreno Valley**

The City of Moreno Valley does not have any official policies or goals addressing GHG or climate change. However, a number of implementing policies contained within the City's General Plan will result in the indirect reduction in City-wide GHG emissions through reductions in vehicle trips, vehicle miles traveled, and energy use. A discussion of the Project's consistency with these policies is provided in Subsection 4.9, Land Use and Planning.

The City of Moreno Valley is preparing a Climate Action Plan (CAP) to address GHG emissions; however, the CAP was not available for public review at the time the NOP for this EIR was released for public review (June 2011).

4.6.2 BASIS FOR DETERMINING SIGNIFICANCE

In order to assess the significance of a proposed Project's environmental impacts it is necessary to identify quantitative or qualitative thresholds which, if exceeded, would constitute a finding of significance. As discussed above in Subsection 4.6.1, while Project-related GHG emissions can be estimated, the direct impacts of such emissions on climate change and global warming cannot be determined on the basis of available science. There is no evidence at this time that would indicate that the emissions from a project the size of the proposed Project would directly or indirectly affect global climate change.

AB 32 states, in part, that "[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." Because global warming is the result of GHG emissions, and GHGs are emitted by innumerable sources worldwide, the proposed Project would not result in a direct impact to global warming; rather, Project-related impacts to global climate change only could be significant on a cumulative basis. Therefore, the analysis below focuses on the Project's potential to contribute to GCC in a cumulatively considerable way.

The CEQA Guidelines indicate that a project would result in a significant impact on climate change if a project were to:

1. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or*
2. *Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

Since AB 32 is the primary plan, policy or regulation adopted in the State of California to reduce GHG emissions, the proposed Project would have a significant impact if it does not comply with the regulations developed under AB 32. Neither the City of Moreno Valley nor the SCAQMD has adopted a threshold of significance for determining the cumulative significance of a project's GHG emissions on GCC. Therefore, for purposes of analysis within this subsection, the significance of the proposed Project's GCC impacts is based upon whether or not the Project can demonstrate compliance with the CARB Scoping Plan prepared in response to California Assembly Bill 32 (AB 32) and the State of California's Climate Action Team Report (2006), prepared in response to the California Governor's Executive Order S-3-05. This approach is consistent with past practice in the City of Moreno Valley.

4.6.3 IMPACT ANALYSIS

A. Methodology for Estimating Project-Related Greenhouse Gas Emissions

CEQA Guidelines §15064.4(b)(1) states that a lead agency may use a model or methodology to quantify greenhouse gas emissions associated with a project. On February 3, 2011, the SCAQMD released the California Emissions Estimator Model (CALEEMOD) Emissions Inventory Model™. The purpose of this model is to estimate air quality and GHG emissions from direct and indirect sources and quantify applicable air quality and GHG reductions achieved from mitigation measures. As such, the February 2011 CALEEMOD™ was used for estimating Project-related emissions. The CalEEMod™ model includes GHG emissions from the following source categories: construction, area, energy, mobile, waste, water (Urban Crossroads 2011c 40).

A full life-cycle analysis (LCA) is not included in the Project's Greenhouse Gas Analysis (*Technical Appendix F*) due to the lack of consensus guidance on LCA methodology. Life-cycle analysis (i.e., assessing economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the project development and infrastructure) depends on emission factors or econometric factors that are not well established for all processes. At this time a LCA would be extremely speculative and thus has not been prepared (Urban Crossroads 2011c 40).

❑ Methodology for Estimating Project-Related Construction Emissions

Construction activities associated with the proposed Project would result in emissions of CO_2 and CH_4 from the following construction activities:

- Site Preparation
- Grading
- Paving
- Building Construction
- Architectural Coatings (Painting)
- Construction Workers Commuting

Based on information about the Project's anticipated construction characteristics and schedule as supplied by the Project Engineer and Applicant, the approximate construction scheduling for each phase of construction was input into the CalEEMod™ model and defaults for all other assumptions were utilized. Please refer to Appendix B of the Greenhouse Gas Analysis (included within *Technical Appendix F* to this EIR) for more details on the construction emissions estimate methodology. Refer also to the specific detailed modeling inputs/outputs contained in Appendix A of the Greenhouse Gas Analysis (included within *Technical Appendix F* to this EIR). A detailed summary of construction

equipment assumptions by phase that were used as model inputs is provided on Table 4.6-4, *Construction Equipment Assumptions*. Equipment estimates were provided by the Project Engineer and Applicant as well as model defaults in the CalEEMod™ model. Construction emissions for construction worker vehicles traveling to and from the project site, as well as vendor trips (construction materials delivered to the project site), also were estimated based on information from the Project Engineer and Applicant and the CalEEMod™ model. Refer to Appendix B of the Greenhouse Gas Analysis (included within *Technical Appendix F* to this EIR) for more details (Urban Crossroads 2011c 37).

Table 4.6-4 Construction Equipment Assumptions

Operation	Water Trucks	Scraper	Grader	Rubber Tired Dozer	Tractor/Loader/Backhoe	Excavator	Pavers	Paving Equipment	Rollers	Forklift	Cranes	Air Compressor	Generator Set	Welder	Aerial Lifts
Phase I															
Site Preparation	2			3	4										
Mass Grading	2	5	1	2	2	2									
Building Construction					3					3	2		1	3	3
Paving							2	2	2						
Painting												3			2
Phase II															
Building Construction					3					3	2		3	3	
Paving							2	2	2						
Painting												3			2

Source: Urban Crossroads 2011c, Table 3-1.

In accordance with SCAQMD recommendations, the Project's construction phase GHG emissions were quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project per the recommended SCAQMD methodology, the total GHG emissions associated with the Project's proposed construction activities was calculated, divided by the project life span default (i.e., 30 years), and then adding that number to the annual operational phase GHG emissions. As such, construction emissions were amortized over a 30 year period and added to the annual operational phase GHG emissions (Urban Crossroads 2011c 37).

❑ Methodology for Estimating Project-Related Operational Emissions

Operational activities associated with the proposed Project would result in emissions of CO_2, CH_4, and N_2O from the following primary sources, each of which is discussed below:

- Building Energy Use
- Water Supply, Treatment and Distribution
- Solid Waste
- Mobile Source Emissions
- Building Energy Use

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO_2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. Unless otherwise noted, CalEEMod™ default parameters were used (Urban Crossroads 2011c 40).

- *Water Supply, Treatment and Distribution*

Indirect GHG emissions result from the production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water depends on the volume of water as well as the sources of the water.

Water use information contained in the Project's Water Supply Assessment prepared by Eastern Municipal Water District (*Technical Appendix K* to this EIR) was utilized to estimate the indoor and outdoor water use as well as the amount of reclaimed water. It was assumed that the difference between the potable water supply and the amount of waste water represented the potable outdoor water supply. The Project is estimated to result in a demand for approximately 46,851 gallons of potable water per day (or approximately 52.5 acre-feet per year). The Project is estimated to result in an average daily demand of 113,696 gallons per day of wastewater treatment capacity. Model defaults were utilized for all other analysis parameters (Urban Crossroads 2011c 40).

- *Solid Waste*

The Project would result in the generation and disposal of solid waste. A large percentage of this waste will be diverted from landfills by a variety of means, through adherence to mandatory requirements for reducing the amount of waste generated, recycling, and/or composting. Waste not diverted would be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. Using solid waste generation rates for light industrial/warehouse uses reported by CalRecycle, GHG emissions associated with the disposal of solid waste associated with the proposed Project were calculated by the CalEEMod model. For all other parameters, the model defaults were utilized (Urban Crossroads 2011c 41).

- *Mobile Source Emissions*

GHG emissions would also result from mobile sources associated with the Project, including daily operation of motor vehicles by visitors, employees, and customers.

Trip characteristics available from the report, *March Business Center Traffic Impact Analysis* (*Technical Appendix J* to this EIR) were utilized in the GHG analysis. It should be noted that the Project's traffic study presents the total Project vehicle trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at the study area intersections. The PCE trips were not used for the purposes of quantifying GHG emissions; rather, to be more representative of actual emissions, the actual number of passenger cars (including light trucks) and heavy trucks were used in the analysis. The vehicle fleet mix, in terms of actual vehicles, as derived from the traffic study for the Project is comprised of approximately 47.6% passenger cars (1,152 passenger cars) and approximately 52.4% total trucks (1,267 trucks). The total traffic generation in vehicles is 2,419 per day (Urban Crossroads 2011c 40).

It should also be noted that operational emissions evaluation is based on a conservative an analysis year of 2016 (Project buildout). This analysis year was selected because it is the most conservative from an emissions generating standpoint; emissions from vehicles would decrease as the analysis year increases due to implementation of mandatory regulatory requirements and vehicle fleet turnover contained in the EMFAC 2007 model (Urban Crossroads 2011c 40).

A technical deficiency inherent in calculating the projected mobile source vehicle emissions associated with any project is related to the estimation of trip length and vehicle miles traveled (VMT). VMT for a given project is calculated by the total number of vehicle trips the project would generate multiplied by average trip length. This method of estimating VMT for use in calculating vehicle emissions likely results in the over-estimation and double-counting of emissions because for a distribution warehouse business center such as the proposed Project, the land use is likely to attract (divert) existing vehicle trips that are already on the circulation system as opposed to generating new trips. As such, the proposed Project would merely redistribute existing mobile emissions. Accordingly, the use of models that measure overall emissions can overstate emission levels without acknowledging that some level of emissions associated with the project under study would still occur in the region regardless of whether the Project is built. As such, the estimation of GHG emissions associated with the proposed Project and disclosed herein assumes a VMT value that very likely overestimates the actual impact of the Project (Urban Crossroads 2011c 41).

In the last five (5) years, the SCAQMD has provided numerous comments on the trip length for warehouse/distribution and industrial land use projects. The SCAQMD asserts that the model-default trip length in CalEEMod™ and the URBan EMISsions (URBEMIS) 2007 model (version 9.2.4) would underestimate emissions. The SCAQMD asserts that for warehouse/distribution center and industrial land use projects, most of the heavy-duty trucks would be hauling consumer goods, often from the Ports of Long Beach and Los Angeles (POLA and POLB) and/or to destinations outside of California. The SCAQMD states that for this reason, the model default trip length (approximately 12.6 miles) would not be representative of activities at like facilities. The SCAQMD generally recommends the use of a 40-mile one-way trip length (Urban Crossroads 2011c 41). In addition, SCAG maintains a regional transportation model. In its most recent (2008) transportation validation for the 2003 Regional Model, SCAG indicates the average internal truck trip length for the SCAG region (which includes the proposed Project site) is 5.92 miles for Light Duty Trucks, 13.06 miles for Medium Duty Trucks, and 24.11 miles for Heavy Duty Trucks (Urban Crossroads 2011c 42). To maintain consistency with the analysis approach utilized for other EIR projects within the City of Moreno Valley and in order to provide for the most conservative analysis scenario, the following approach has been utilized in calculating emissions associated with vehicles accessing the proposed Project.

For passenger car trips, a one-way trip length of 17 miles was assumed as contained in the SCAQMD CEQA Handbook for Riverside County for the year 2010 (this trip length was used in lieu of the CalEEMod™ model defaults because it is a longer trip length). For heavy duty trucks, an average trip length was derived from distances from the Project site to the far edges of the South Coast Air Basin (SCAB) as follows. It is appropriate to stop the VMT calculation at the boundary of the SCAB because any activity beyond that boundary would be speculative, and because the selected approach is consistent with professional industry practice (Urban Crossroads 2011c 42-43).

- Project site to the Port of Los Angeles/Long Beach: 78 miles;
- Project site to Banning Pass: 27 miles;

- Project site to San Diego County line: 46 miles;
- Project site to Cajon Pass: 42 miles;
- Project site to downtown Los Angeles: 64 miles.

Assuming that 50% of all delivery trips will travel to and from the Project and the Port of Los Angeles/Long Beach, and the remainder as distribution trips to all other locations, the average truck trip length is calculated as 61 miles. An overall weighted-average trip length for the Project was calculated using the percentage of trips associated with passenger cars (including light duty trucks) versus heavy trucks, the passenger car trip length of 17 miles and truck trip length of 61 miles was utilized. The resulting weighted average trip length of 40.52 miles was entered into the CalEEMod™ model calculations (Urban Crossroads 2011c 43).

For analysis purposes heavy truck trips include all light HD trucks through heavy HD trucks (Vehicle classes 5-8). The percentages have been apportioned according to data provided in a 1985 CARB document for converting number of axles to vehicle class. The passenger cars include light duty auto through medium duty trucks (vehicle classes 1-4), proportional to the default CalEEMod distribution for the SCAQMD (Urban Crossroads 2011c 43). For more information, tables calculating percentage of trips by vehicle class are shown in *Technical Appendix F*.

Threshold 1: ***Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***

Threshold 2: ***Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?***

A summary of the proposed Project's projected annual operational GHG emissions, including the amortized construction emissions, is provided in Table 4.6-5, *Total Annual Project Greenhouse Gas Emissions*. The operational GHG emissions for the Project, including the amortized construction emissions, are estimated to be 36,547.50 MT per year (Urban Crossroads 2011c 44).

As indicated in §15064(b) of the State CEQA Guidelines, the determination of significance of greenhouse gases is not "ironclad;" rather, the "determination of whether a project may have a significant effect on the environment calls for a "careful judgment" by the City "based to the extent possible on scientific and factual data." The City of Moreno Valley has not adopted a numeric threshold of significance for emissions of greenhouse gases.

Table 4.6-5 Total Annual Project Greenhouse Gas Emissions

EMISSION SOURCE	EMISSIONS (METRIC TONS PER YEAR)			
	CO_2	CH_4 (CO_2E)	N_2O(CO_2E)	Total CO_2E
Annual construction-related emissions amortized over 30 years	85.45	0.16	--	85.61
Energy	1,473.47	1.26	9.3	1,482.67
Mobile Sources	33,061.49	14.49	--	33,076.05
Waste	777.96	965.58	--	1,743.46
Water Usage	143.80	11.13	6.2	159.68
Total CO_2e (All Sources)	**36,547.50**			

Source: Urban Crossroads 2011c, Table 3-4.

As previously noted, CARB does not have an adopted numerical threshold of significance for projects like the proposed March Business Center. Further, CARB's current proposal sets forth draft thresholds for industrial projects that have high operational stationary GHG emissions, such as manufacturing plants or uses that utilize combustion engines, and does not address mobile source emissions. Similarly, the SCAQMD thresholds are currently in draft form and are not adopted. Nevertheless, comparison of the GHG emissions from the Project's area sources (construction, energy, waste, and water usage) indicates that the Project's emissions from such sources would be well below the proposed CARB and SCAQMD thresholds for stationary sources. With regard to GHG emissions from mobile sources, as discussed above, the estimation of the Project's impact on mobile source GHG emissions is highly speculative, because the methodology to quantify mobile source GHG emissions assumes that all of the vehicle trips to and from the Project site would be new, rather than redistributed vehicle trips from other areas. No methods or models exist to estimate the Project's net contribution to regional or global vehicle miles traveled. Because the estimation of the Project's contribution to mobile source GHG emissions is highly speculative, and based on the absence of applicable thresholds for mobile source GHG emissions, use of a quantitative threshold of significance is not meaningful. Accordingly, a qualitative analysis is used to determine significance, based on consistency with regional and state GHG plans.

As previously indicated and consistent with past practice in the City of Moreno Valley, the significance of the Project's GCC impacts is based upon whether or not the Project can demonstrate compliance with the CARB Scoping Plan and the State of California's Climate Action Team Report (2006). The analysis below sets out the factual basis for the City's determination regarding the effect of Project-related greenhouse gases. The analysis is specific to this Project, and may not necessarily apply to other projects within the City of Moreno Valley.

❑ Consistency with the CARB Scoping Plan

AB 32 requires California to reduce its GHG emissions to 1990 levels by the Year 2020, which correlates to an approximate reduction of 29% below business as usual. CARB identified reduction measures to achieve this goal as set forth in the CARB Scoping Plan. Thus, projects that are consistent with the CARB Scoping Plan are also consistent with AB 32's mandate to reduce GHG emissions.

The proposed Project would generate GHG emissions from a variety of sources which would all emit CO_2, CH_4 and N_2O. GHGs could also be indirectly generated by incremental electricity consumption and waste generation from the proposed Project. Table 4.6-6, *Recommended Actions for Climate Change Scoping Plan*, presents the 39 Recommended Actions (qualitative measures) identified to date by CARB in its Climate Change Proposed Scoping Plan. Of the 39 measures identified, those that would be considered to be applicable to the Project would primarily be those actions related to transportation, electricity and natural gas use, green building design and industrial uses. Consistency of the Project with these measures is evaluated by each source-type measure below. Table 4.6-6 identifies which CARB Recommended Actions applies to the Project, and of those, whether the Project is consistent therewith. A discussion of how the Project is consistent with each applicable CARB Recommended Action also is provided.

- *Transportation*

CARB's Scoping Plan identifies nine transportation-related recommended actions. Action T-1 concerns improvements to light-duty vehicle technology for the purposes of reducing GHG emissions. This action focuses on legislating improved controls for vehicle manufacturers and would not generally be considered applicable to the proposed Project. Implementation of the Pavley standards is dependent on implementation by the State on vehicle fuel economy standards. Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with measures concerning the Pavley standards.

Action T-2 concerns implementation of a low carbon fuel standard. To reduce the carbon intensity of transportation fuels, CARB is developing a Low Carbon Fuel Standard (LCFS), which would reduce the carbon intensity of California's transportation fuels by at least 10% by 2020 as called for by Governor Schwarzenegger in Executive Order S-01-07. LCFS will incorporate compliance mechanisms that provide flexibility to fuel providers in how they meet the requirements to reduce greenhouse gas emissions. Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with measures concerning the use of low carbon fuels.

Action T-3 addressees regional transportation targets for reducing GHG emissions. SB 375 requires CARB to develop, in consultation with metropolitan planning organizations (MPOs), passenger vehicle greenhouse gas emissions reduction targets for 2020 and 2035. It sets forth a collaborative process to establish these targets, including the appointment by CARB of a Regional Targets Advisory Committee to recommend factors to be considered and methodologies for setting greenhouse gas emissions reduction targets. SB 375 also provides incentives – relief from certain CEQA requirements for development projects that are consistent with regional plans that achieve the targets. Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with measures concerning SB375.

Action T-4 is concerned with vehicle efficiency measures. The California Integrated Waste Management Board (CIWMB) with various partners continues to conduct a public awareness campaign to promote sustainable tire practices. CARB is pursuing a regulation to ensure that tires are properly inflated when vehicles are serviced. In addition, CEC in consultation with CIWMB is developing an efficient tire program focusing first on data gathering and outreach, then on potential adoption of minimum fuel-efficient tire standards, and lastly on the development of consumer information requirements for replacing tires. CARB is also pursuing ways to reduce engine load via lower friction oil and reducing the need for air conditioner use. CARB is actively engaged in the regulatory development process for the tire inflation component of this measure. Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with applicable measures.

Table 4.6-6 Recommended Actions for Climate Change Scoping Plan

ID #	SECTOR	STRATEGY NAME	APPLICABLE TO PROJECT?	WILL PROJECT CONFLICT WITH IMPLEMENTATION?
T-1	Transportation	Pavley I and II – Light-Duty Vehicle GHG Standards	NO	NO
T-2	Transportation	Low Carbon Fuel Standard (Discrete Early Action)	NO	NO
T-3	Transportation	Regional Transportation-Related GHG Targets	NO	NO
T-4	Transportation	Vehicle Efficiency Measures	NO	NO
T-5	Transportation	Ship Electrification at Ports (Discrete Early Action)	NO	NO
T-6	Transportation	Goods-movement Efficiency Measures	NO	NO
T-7	Transportation	Heavy Duty Vehicle Greenhouse Gas Emission Reduction Measure – Aerodynamic Efficiency (Discrete Early Action)	NO	NO
T-8	Transportation	Medium and Heavy-Duty Vehicle Hybridization	NO	NO
T-9	Transportation	High Speed Rail	NO	NO
E-1	Electricity and Natural Gas	Increased Utility Energy efficiency programs More stringent Building and Appliance Standards	YES	NO
E-2	Electricity and Natural Gas	Increase Combined Heat and Power Use by 30,000GWh	NO	NO
E-3	Electricity and Natural Gas	Renewable Portfolio Standard	NO	NO
E-4	Electricity and Natural Gas	Million Solar Roofs	YES	NO
CR-1	Electricity and Natural Gas	Energy Efficiency	YES	NO
CR-2	Electricity and Natural Gas	Solar Water Heating	NO	NO
GB-1	Green Buildings	Green Buildings	YES	NO
W-1	Water	Water Use Efficiency	YES	NO
W-2	Water	Water Recycling	NO	NO
W-3	Water	Water System Energy Efficiency	YES	NO
W-4	Water	Reuse Urban Runoff	NO	NO
W-5	Water	Increase Renewable Energy Production	NO	NO
W-6	Water	Public Goods Charge (Water)	NO	NO
I-1	Industry	Energy Efficiency and Co-benefits Audits for Large Industrial Sources	YES	NO
I-2	Industry	Oil and Gas Extraction GHG Emission Reduction	NO	NO
I-3	Industry	GHG Leak Reduction from Oil and Gas Transmission	NO	NO
I-4	Industry	Refinery Flare Recovery Process Improvements	NO	NO
I-5	Industry	Removal of Methane Exemption from Existing Refinery Regulations	NO	NO
RW-1	Recycling and Waste Management	Landfill Methane Control (Discrete Early Action)	NO	NO
RW-2	Recycling and Waste Management	Additional Reductions in Landfill Methane – Capture Improvements	NO	NO
RW-3	Recycling and Waste Management	High Recycling/Zero Waste	NO	NO
F-1	Forestry	Sustainable Forest Target	NO	NO
H-1	High Global Warming Potential Gases	Motor Vehicle Air Conditioning Systems (Discrete Early Action)	NO	NO
H-2	High Global Warming Potential Gases	SF_6 Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)	NO	NO
H-3	High Global Warming Potential Gases	Reduction in Perflourocarbons in Semiconductor Manufacturing (Discrete Early Action)	NO	NO
H-4	High Global Warming Potential Gases	Limit High GWP Use in Consumer Products (Discrete Early Action, Adopted June 2008)	NO	NO
H-5	High Global Warming Potential Gases	High GWP Reductions from Mobile Sources	NO	NO
H-6	High Global Warming Potential Gases	High GWP Reductions from Stationary Sources	NO	NO
H-7	High Global Warming Potential Gases	Mitigation Fee on High GWP Gases	NO	NO
A-1	Agriculture	Methane Capture at Large Dairies	NO	NO

Source: Urban Crossroads 2011c, Table 3-5.

Action T-5 addresses electrification of ships at ports and is not applicable to the proposed Project. Therefore, the proposed Project would not conflict with this measure.

Action T-6 also primarily addresses port operations and is not applicable to the proposed Project. Therefore, the proposed Project would not conflict with this measure.

Action T-7 requires existing trucks/trailers to be retrofitted with the best available technology and/or CARB-approved technology. Implementation of such a standard is not within the purview of the proposed Project since various trucks fleets from numerous commercial entities may access the site. Therefore, the proposed Project would not conflict with this measure.

Action T-8 focuses on hybridization of medium- and heavy-duty vehicles. The implementation approach to Action T-8 is to adopt a regulation and/or incentive program that reduces GHG emissions by encouraging hybrid technology as applied to vocational applications that have significant urban, stop-and-go driving, idling, and power take-off operations in their duty cycle. Such applications include parcel delivery trucks and vans. Implementation of such a standard is not within the purview of the proposed Project since various trucks fleets from numerous commercial entities may access the site. Therefore, the proposed Project would not conflict with this measure.

Action T-9 concerns implementation of a high speed rail system. A high speed rail (HSR) system is part of the state-wide strategy to provide more mobility choice and reduce greenhouse gas emissions. This measure supports implementation of plans to construct and operate a HSR system between northern and southern California. As planned, the HSR is a 700-mile-long rail system capable of speeds in excess of 200 miles per hour on dedicated, fully-grade separated tracks with state-of-the-art safety, signaling and automated rail control systems. The system would serve the major metropolitan centers of California in 2030 and is projected to displace between 86 and 117 million riders from other travel modes in 2030. The proposed Project would not conflict with implementation of a HSR system.

- *Electricity and Natural Gas*

Action E-1/CR-1, together with Action GB-1 (Green Building), aims to reduce electricity demand by increased efficiency of Utility Energy Programs and adoption of more stringent building and appliance standards. The primary focus on GHG reduction in the real estate sector is through the implementation of green building measures, including principally LEED standards. To reduce the Project's energy needs and fossil fuel consumption, and thereby reduce GHG emissions, the Project Applicant has committed to achieve certification of the March Business Center Project under the U.S. Green Building Council's LEED program. Following final building inspection, the Project Applicant will seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute. Because the design features are not yet selected, and cannot be precisely determined until tenants are identified and interior space design occurs, it is not possible to calculate the GHG emission reductions associated with LEED Silver design features at this time. The proposed Project would incorporate energy efficient measures in its site and building designs, would achieve LEED Silver, and would comply with these Climate Change Scoping Plan Actions

Action E-2 encourages an increase in the use of combined heat and power (CHP) use, or co-generation, facilities. California has supported CHP for many years, but market and other barriers continue to keep CHP from reaching its full market potential. Increasing the deployment of efficient CHP will require a multi-pronged approach that includes addressing significant barriers and

instituting incentives or mandates where appropriate. Implementation of such a standard is not within the purview of the proposed Project; therefore, the proposed Project would not conflict with this measure.

Action E-3 concerns Renewable Portfolio Standards for utilities and does not apply to development projects; therefore, the proposed Project would not conflict with the recommended measure.

Action E-4 strives to promote solar generated electricity. Because all buildings would be designed to accommodate renewable energy sources, such as photovoltaic solar electricity systems, appropriate to their architectural design, the proposed Project would not conflict with the recommended measure.

Action CR-2 strives to promote solar water heaters (SWH). CARB recommends that California pursue approaches with the goal of developing a viable SWH industry for 2020 and beyond. Implementation of such a standard is not within the purview of the proposed Project; therefore, the proposed Project would not conflict with this measure.

- *Water Use*

Implementation of all but two of the Recommended Actions related to water use are not within the purview of the proposed Project. The two measures that apply are measures W-1 (Water Use Efficiency) and W-3 (Water System Energy Efficiency). The landscape design of the proposed Project would feature water-efficient plant materials and a water-efficient automatic irrigation system (as previously described in Subsection 3.3.3.D, *Conceptual Landscape Plan*). Accordingly, the proposed Project would provide for water-efficient development and would not conflict with the implementation of Scoping Plan Actions W-1 and W-3.

- *Industrial Use*

All but one of the Recommended Actions related to industrial use are specific to oil and gas extraction, refining and transmission, and are not applicable to the proposed Project. The remaining Action, Action I-1, recommends energy efficiency and co-benefits audits for large emitters of GHGs (i.e., uses that produce in excess of 0.5 $MMTCO_2E$ per year). The proposed Project would not generate in excess of 0.5 $MMTCO_2e$ per year and would not be subject to energy efficiency audits. Therefore, the proposed Project would not conflict with any of the Industrial Use Action Items of the Scoping Plan.

❑ Consistency with GHG Emission Reduction Strategies Set Forth in the 2006 CAT Report

Table 4.6-7, *Project Compliance with Applicable 2006 CAT Report Greenhouse Gas Emissions Reduction Strategies*, summarizes the emission reduction strategies set forth in the 2006 CAT Report along with an explanation as to how the Project is consistent therewith. Table 4.6-7 also notes whether the strategy is applicable to the Project:

Although implementation of the CAT strategies would reduce GHG emissions to the extent possible, it is not possible to specifically quantify the reduction in GHG that will result from implementation of CAT strategies and programs. However, a project that is consistent with CAT strategies is consistent with the strategies suggested to reduce California's emissions to the levels proposed by Executive Order S-3-05 and AB 32.

Table 4.6-7 Project Compliance with Applicable 2006 CAT Report Greenhouse Gas Emissions Reduction Strategies

STRATEGY	PROJECT COMPLIANCE
California Air Resource Board	
Vehicle Climate Change Standards AB 1493 (Pavley) required the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by CARB in September 2004.	Not Applicable.
Other Light Duty Vehicle Technology New standards would be adopted to phase in beginning in the 2017 model.	
Heavy-Duty Vehicle Emission Reduction Measures Increased efficiency in the design of heavy-duty vehicles and an education program for the heavy-duty vehicle sector.	
Diesel Anti-Idling In July 2004, the CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.	Compliant. Heavy-duty diesel trucks that access the project site would be required to limit idling to no more than five minutes.
Hydrofluorocarbon Reduction 1) Ban retail sale of HFC in small cans; 2) Require that only low GWP refrigerants be used in new vehicular systems; 3) Adopt specifications for new commercial refrigeration; 4) Add refrigerant leak-tightness to the pass criteria for vehicular Inspection and Maintenance programs; 5) Enforce federal ban on releasing HFCs.	Not Applicable.
Transportation Refrigeration Units (TRUs), Off-Road Electrification, Port Electrification Strategies to reduce emissions from TRUs, increase off-road electrification, and increase use of shore-side/port electrification.	Not Applicable. The Project uses will be unrefrigerated and therefore TRUs would not be accessing the site.
Alternative Fuels: Biodiesel Blends CARB would develop regulations to require the use of 1% to 4% biodiesel displacement of California diesel fuel.	Not Applicable.
Reduced Venting and Leaks in Oil and Gas Systems Rule considered for adoption by the Air Pollution Control Districts for improved management practices.	Not Applicable.
Hydrogen Highway The California Hydrogen Highway Network (CA H_2 Net) is a State initiative to promote the use of hydrogen as a means of diversifying the sources of transportation energy.	Not Applicable.
Integrated Waste Management Board	
Achieve 50% Statewide Recycling Goal Achieving the State's 50% waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills. A diversion rate of 48% has been achieved on a statewide basis. Therefore, a 2% additional reduction is needed.	Compliant. Project design includes provisions for tenants to recycle. In accordance with the California Solid Waste Reuse and Recycling Act of 1991 (Cal Pub Res. Code § 42911), the Project would provide adequate areas for collecting and loading recyclable materials where solid waste is collected. Per City of Moreno Valley requirements, the collection areas are required to be shown on construction drawings and be in place before occupancy permits are issued.
Zero Waste - High Recycling Additional recycling beyond the State's 50% recycling goal.	
Department of Forestry	
Forest Management Strategies for storing more carbon through forest	Not applicable.

Table 4.6-7 Project Compliance with Applicable 2006 CAT Report Greenhouse Gas Emissions Reduction Strategies

STRATEGY	PROJECT COMPLIANCE
management activities can involve a range of management activities such as increasing either the growth of individual trees, the overall age of trees prior to harvest, or dedicating land to older age trees.	
Forest Conservation Conservation projects are designed to minimize/prevent the climate change emissions that are associated with the conversion of forestland to non-forest uses by adding incentives to maintain an undeveloped forest landscape.	Not applicable.
Fuels Management/Biomass Large, episodic, unnaturally hot fires are an increasing trend on California's wild lands because of decades of fire suppression activities, sustained drought, and increasing insect, disease, and invasive plans infestations. Actions taken to reduce wildfire severity through fuel reduction and biomass development would reduce climate change emissions from wildfire, increase carbon sequestration, replace fossil fuels, and provide significant economic development opportunities.	Not applicable.
Urban Forestry A new statewide goal of planting 5 million trees in urban areas by 2020 would be achieved through the expansion of local urban forestry programs.	Compliant. The implementation of the proposed Project will result in the planting of additional trees and vegetation at the project site.
Afforestation/Reforestation Projects Reforestation projects focus on restoring native tree cover on lands that were previously forested and are now covered with other vegetative types.	Not applicable.
Department of Water Resources	
Water Use Efficiency Approximately 19% of all electricity, 30% of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions.	Compliant. The Project would implement U.S. EPA Certified WaterSense labeled or equivalent faucets and high-efficiency toilets (HETs), and implement water-conserving shower heads to the extent feasible.
California Energy Commission (CEC)	
Building Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings).	Compliant. Project would be compliant with the California Code of Regulations, Title 24 (Energy Efficiency Standards for Residential and Nonresidential Buildings) as in effect at the time of Project construction.
Appliance Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California).	Compliant. Appliances purchased for use in the Project would be consistent with all applicable energy efficiency standards.
Fuel-Efficient Replacement Tires & Inflation Programs State legislation (Chapter 912, Statues of 2001) directed the Energy Commission to investigate and to recommend ways to improve fuel efficiency of vehicle tires. The bill established a statewide program to encourage the production and use of more fuel efficient tires.	Not Applicable.

Table 4.6-7 Project Compliance with Applicable 2006 CAT Report Greenhouse Gas Emissions Reduction Strategies

STRATEGY	PROJECT COMPLIANCE
Cement Manufacturing Cost-effective reductions to reduce energy consumption and to lower carbon dioxide emissions in the cement industry.	Not Applicable.
Municipal Utility Strategies Includes energy efficiency programs, renewable portfolio standard, combined heat and power, and transitioning away from carbon-intensive generation.	Not Applicable.
Alternative Fuels: non-Petroleum Fuels Increasing the use of non-petroleum fuels in California's transportation sector, as recommended in the CEC's 2003 and 2005 Integrated Energy Policy Reports.	Not Applicable.
Business Transportation and Housing	
Smart Land Use and Intelligent Transportation Systems (ITS) Smart land use strategies encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors. ITS is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods and services. Governor Schwarzenegger is finalizing a comprehensive 10-year strategic growth plan with the intent of developing ways to promote, through state investments, incentives and technical assistance, land use, and technology strategies that provide for a prosperous economy, social equity, and a quality environment.	Compliant. The proposed Project would place development in close proximity to a transportation corridor and near homes which can limit worker commute trips.
Measures to Improve Transportation Energy Efficiency Builds on current efforts to provide a framework for expanded and new initiatives including incentives, tools and information that advance cleaner transportation and reduce climate change emissions.	Compliant. The proposed Project promotes fuel conservation through design features, which encourage employee carpooling and public transportation use. Easements for future bus stops are shown on the Project's Tentative Parcel Map.
Department of Food and Agriculture	
Conservation tillage/cover crops Conservation tillage and cover crops practices are increasingly being used by California farmers for a variety of reasons, including improved soil tilth, improved water use efficiency, reduced tillage requirements, saving labor and fuel, and reduced fertilizer inputs.	Not Applicable.
Enteric Fermentation Cattle emit methane from digestion processes. Changes in diet could result in a reduction in emissions.	Not Applicable.
State and Consumer Services Agency	Not Applicable.
Green Buildings Initiative Green Building Executive Order, S-20-04 (CA 2004), sets a goal of reducing energy use in public and private buildings by 20% by the year 2015, as compared with 2003 levels.	Compliant. By qualifying for LEED Silver certification, the Project is expected to reduce energy use compared to business as usual (e.g., 2005 Title 24 Standards). Additionally, the Project is required to comply with the mandatory provisions of the California Green Building Standards Code (CALGreen) pursuant to the California Code of Regulations, Title 24, which became effective on January 1, 2011.
Public Utilities Commission (PUC)	
Accelerated Renewable Portfolio Standard The Governor has set a goal of achieving 33% renewables in	Not Applicable.

Table 4.6-7 Project Compliance with Applicable 2006 CAT Report Greenhouse Gas Emissions Reduction Strategies

STRATEGY	PROJECT COMPLIANCE
the State's resource mix by 2020. The joint PUC/Energy Commission September 2005 Energy Action Plan II (EAP II) adopts the 33% goal.	
California Solar Initiative Installation of 1 million solar roofs or an equivalent 3,000 MW by 2017 on homes and businesses; increased use of solar thermal systems to offset the increasing demand for natural gas; use of advanced metering in solar applications; and creation of a funding source that can provide rebates over 10 years through a declining incentive schedule.	Compliant. By qualifying for LEED Silver certification, the Project is anticipated to accommodate renewable energy sources, such as photovoltaic solar energy systems, as is economically and physically feasible.
Investor-Owned Utility This strategy includes energy efficiency programs, combined heat and power initiative, and electricity sector carbon policy for investor owned utility.	Not Applicable.

Source: Urban Crossroads 2011c, Table 3-6.

B. Level of Significance Prior to Mitigation

As indicated previously in EIR Subsection 4.6.2, neither the City of Moreno Valley nor the SCAQMD have adopted a threshold of significance for determining the cumulative significance of a Project's GHG emissions on global climate change. In the absence of a quantitative threshold of significance, and for purposes of analysis within this section, the applicable threshold of significance is whether or not the Project would be consistent with the CARB Scoping Plan and the 2006 CAT Report.

Based on the analysis provided above, the Project would generate GHG emissions amounting to approximately 36,547.50 MT per year (of which 33,076.05 MT are based on the speculative estimate of mobile source emissions (refer to Table 4.6-5)). However, and as indicated in Table 4.6-6 and Table 4.6-7, the Project is consistent with, or otherwise would not conflict with, the CARB Scoping Plan recommended measures and actions and the GHG emission reduction strategies set forth in the 2006 CAT Report.

Because the proposed Project would be consistent with both the CARB Scoping Plan and the 2006 CAT Report, Project-related GHG emissions would not be substantial and would not directly or indirectly result in a significant impact on the environment. This conclusion reflects a conservative analysis of Project-related impacts as the analysis presented previously in this subsection does not credit the Project for a reduction of GHG emissions that would result from implementation of Project design features. Therefore, the proposed Project would not result in a significant impact to the environment as a result of Project-related GHG emissions.

In addition, there are currently no plans, policies, or regulations that are applicable to the proposed Project and that have been adopted for the purpose of reducing the emissions of greenhouse gases. Although there are no applicable plans, policies, or regulations that are applicable to the proposed Project, the Project would nonetheless be consistent with the CARB Scoping Plan and the 2006 CAT Report strategies for reducing GHG emissions. Therefore, the proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases, and a significant impact would not occur.

4.6.4 CUMULATIVE IMPACT ANALYSIS

Global Climate Change occurs as the result of global emissions of GHGs. An individual project proposal does not have the potential to result in significant GCC-related effects in the absence of cumulative sources of GHGs. The CEQA Guidelines also emphasize that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (See CEQA Guidelines §15130[f]).

Accordingly, the Project-specific impact analysis provided in EIR Subsection 4.6.3 reflects a cumulative impact analysis of the Project's GHG emissions, and concludes that since the proposed Project would comply with all applicable GHG-reduction strategies set forth by the CARB Scoping Plan and 2006 CAT Report, the proposed Project's GHG emissions would not be cumulatively considerable. In addition, the analysis in EIR Subsection 4.6.3 demonstrates that the proposed Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHGs. Therefore, Project-related emissions of GHGs would be less than significant on both a direct and cumulative basis.

4.6.5 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Compliance with these measures was assumed throughout the above analysis of effects associated with Project-related GHG emissions.

PR 4.6-1 The Project is required to comply with mandatory regulatory requirements imposed by the State of California and the South Coast Air Quality Management District aimed at the reduction of air quality emissions. Those that are applicable to the Project and that would assist in the reduction of Project-related GHG emissions include, but are not limited to the following:

a) Global Warming Solutions Act of 2006 (AB32).

b) Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (SB 375).

c) California Code of Regulations Title 13, Division 3 addressing diesel exhaust emissions. Specifically, Chapter 1, Article 4.5, §2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles" and Chapter 10, Article 1, §2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling."

d) California Code of Regulations Title 24 (California Building Code), which establishes energy efficiency requirements for new construction.

e) California Code of Regulations Title 20 (Appliance Energy Efficiency Standards), which establishes energy efficiency requirements for appliances.

f) South Coast Air Quality Management District Rule 1118 "PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations," and Rule 1186.1 "Less Polluting Street Sweepers."

PR 4.6-2 Prior to the issuance of building permits, the Building and Safety Division shall ensure that the project plans provide for on-site bicycle storage, pursuant to City of Moreno Valley Municipal Code §9.11.060.B, *Off-street bicycle parking requirements*. This requirement encourages non-vehicular transportation thereby potentially reducing mobile source emissions.

4.6.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Thresholds 1 and 2: Less than Significant Impact. The proposed Project would have a less than significant direct impact on global climate change and the Project's contribution of greenhouse gas emissions would be less than cumulatively considerable. The Project complies with all applicable CARB Scoping Plan and 2006 CAT Report GHG reduction measures. There are no other applicable plans, policies, or regulations that have been adopted for the purpose of reducing the Project's emissions of greenhouse gases.

4.6.7 MITIGATION MEASURES

Although Project-related GHG emissions are evaluated as less than significant on both a direct and cumulative basis, the following measures are recommended to ensure that Project-related emissions of GHGs are reduced to the maximum practical extent. Additionally, Mitigation Measures MM 4.2-1 through MM 4.2-6 in Subsection 4.2, Air Quality, and Project Requirement PR 4.11-10 in Subsection 4.11, Transportation/ Traffic, also reduce greenhouse gas emissions.

MM 4.6-1 The Project's construction drawings shall be designed to achieve certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program. Prior to issuance of a building permit, the applicant shall provide a letter from a qualified LEED consultant verifying that proposed building design features are adequate to seek LEED certification. Following final building inspection, the Project Applicant shall seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute.

MM 4.6-2 Prior to the issuance of grading and building permits, the Planning Division and the Land Development Division shall review grading plans and building plans to ensure that the following notes are specified:

> "With the exception of equipment used for asphalt paving, trenching, and off-site improvements, all diesel-powered construction equipment shall use B20 biodiesel fuel (comprising a minimum of 20% biodiesel) for the duration of construction activities. Any construction equipment whose warranty would be voided upon the use of B20 biodiesel fuel shall be exempt from this requirement. The Building and Safety Division may exempt additional pieces of equipment from this requirement upon written request from the Project applicant documenting a valid technical, economic, or physical reason why the use of B20 biodiesel fuel cannot be used. This requirement shall only

apply if B20 biodiesel fuel is available within 15 roadway miles from the Project site at the time construction activities commence."

"During Project construction, existing electrical power sources (e.g., power poles) shall be provided for electric construction tools including saws, drills and compressors, to minimize the need for diesel or gasoline powered electric generators."

MM 4.6-3 Prior to the approval of building permits, the Planning Division shall review landscaping plans to ensure that the following components are included:

a) Landscaping palette emphasizing drought tolerant plants; and

b) Use of water-efficient irrigation techniques.

MM 4.6-4 The Project's mechanical/electrical/plumbing (MEP) plans shall specify U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads (if showers are proposed). Prior to the approval of building permits, the Building and Safety Division shall review the plans to ensure that these features are specified, as appropriate.

MM 4.6-5 Prior to the issuance of building permits, the Project applicant shall submit energy usage calculations to the Planning Division showing that the Project is designed to achieve 8% efficiency beyond the 2008 California Building Code Title 24 requirements. Example of measures that reduce energy consumption include, but are not limited to, the following (it being understood that the items listed below are not all required and merely present examples; the list is not all-inclusive and other features that reduce energy consumption also are acceptable):

a) Increase in insulation such that heat transfer and thermal bridging is minimized;

b) Limit air leakage through the structure and/or within the heating and cooling distribution system;

c) Use of energy-efficient space heating and cooling equipment;

d) Installation of electrical hook-ups at loading dock areas;

e) Installation of dual-paned or other energy efficient windows;

f) Use of interior and exterior energy efficient lighting that exceeds the 2008 California Title 24 Energy Efficiency performance standards;

g) Installation of automatic devices to turn off lights where they are not needed;

h) To the extent they are compatible with Moreno Valley Municipal Code §9.17.030, *Landscape and Irrigation Design Standards*, the incorporation of shade-producing trees, particularly those that shade buildings and paved surfaces such as streets and parking lots;

i) Application of a paint and surface color palette that emphasizes light and off-white colors that reflect heat away from buildings;

j) Design of buildings with "cool roofs" using products certified by the Cool Roof Rating Council, and/or exposed roof surfaces using light and off-white colors;

k) Design of buildings to accommodate photo-voltaic solar electricity systems or the installation of photo-voltaic solar electricity systems;

l) Installation of ENERGY STAR-qualified energy-efficient appliances, heating and cooling systems, office equipment, and/or lighting products; and/or

m) Other measures incorporated as part of the LEED Certification process.

MM 4.6-6 Prior to the approval of street improvement plans, the Transportation Engineering Division shall ensure that all traffic lights installed as part of the Project will utilize Light Emitting Diodes.

MM 4.6-7 The Project shall comply with the following requirements to reduce the generation of solid waste during construction and under long-term operating conditions:

a) Prior to the issuance of grading permits, a Waste Management Plan (WMP) addressing construction activity wastes shall be prepared by the Project Applicant and submitted to the Public Works Department and Building and Safety Division for review and approval. The WRP must conform to City requirements specified in Municipal Code Section 8.80.030, which requires that at least 50 percent of all construction and demolition debris be reused, recycled, or otherwise diverted from disposal in a landfill. During grading and construction, the Project Applicant shall recycle and reuse the required percentage of materials, and keep records of the tonnage or other measurements approved by the City that can be converted to tonnage amounts. Prior to issuance of an occupancy permit, the Project Applicant shall provide evidence (i.e., receipts, weight tags, or other type of acceptable verifications) to the Public Works Department to demonstrate Project compliance with the approved WRP. Evidence must clearly identify the amount of waste disposed and materials recycled.

b) Recycling shall occur during Project operational activities in accordance with all applicable solid waste and recycling requirements of the City of Moreno Valley Public Works Department. Prior to the issuance of building permits, the Building and Safety Division shall review building plans to ensure that the locations and dimensions of recyclable collection enclosures and loading areas are specified on the building plans in conformance with City requirements and City Municipal Code Chapter 6.02 "Refuse Collection, Transfer and Disposal." Prior to the issuance of occupancy permits, the Land Development Division shall conduct a field inspection to ensure that the recyclable collection enclosures and loading areas are in place and ready for use.

MM 4.6-8 Prior to the issuance of building permits, the Planning Division shall review building plans to ensure that a minimum of two (2) parking spaces for each building will be

reserved for carpools and vanpools. Prior to the issuance of occupancy permits, the Planning Division shall conduct a field inspection to ensure that a minimum of two (2) parking spaces for each building are marked as reserved for carpools and vanpools.

MM 4.6-9 Prior to the issuance of building permits for Parcel 1, the Planning Division and Building and Safety Division shall review building plans to ensure that a minimum of two (2) electric vehicle charging stations will be provided. Prior to the issuance of occupancy permits for Parcel 1, the Planning Division and Building and Safety Division shall conduct a field inspection to verify that the electric vehicle charging stations are in place and operable.

MM 4.6-10 Prior to the issuance of occupancy permits, the Project's property owner shall provide documentation to the Planning Division verifying that a provision is included in the building's lease agreement which stipulates that tenants of the building shall encourage carpooling and transit ridership by on-site employees.

4.7 HAZARDS AND HAZARDOUS MATERIALS

The information and analysis presented in this subsection is based in part on two site-specific technical studies that were prepared by SCS Engineers to determine the presence or absence of hazardous materials on the Project site. The first report is titled "Phase I Environmental Assessment, 24015 Iris Avenue" (dated December 2006), and the second report is titled "Addendum to Phase I Environmental Assessment Report for Property Located at 24015 Iris Avenue" (May 12, 2011). These reports are included as *Technical Appendices G1* and *G2* to this EIR, respectively.

This subsection also is based on information contained in the Safety Element of the City of Moreno Valley General Plan (Chapter 6, pp. 6-1 – 6-30), dated July 2006 (Moreno Valley 2006a), and the Hazards section (Section 5.5, pp. 5.5-1 – 5.5-16) of the certified Final Program EIR prepared for the General Plan (SCH No. 2000091075), dated July 2006 (Moreno Valley 2006b). Additionally, information was obtained from the adopted Riverside County Airport Land Use Compatibility Plan (1986) and the proposed update to that plan for March ARB/IPA called the "March ARB/IPA Joint Land Use Study" (March JPA 2010), as well as the "Air Installation Compatible Use Zone Study for March ARB" prepared by the Department of the Air Force in 1005 (Air Force 2005).

4.7.1 EXISTING CONDITIONS

A. Definition of Toxic Substances and Hazardous Waste

For the purposes of this EIR, the term "toxic substance" is defined as a substance which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may present an unreasonable risk of injury to human health or the environment. Toxic substances include chemical, biological, flammable, explosive, and radioactive substances.

"Hazardous material" is defined as a substance which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may: 1) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, disposed of, or otherwise mismanaged; or 2) cause or contribute to an increase in mortality or an increase in irreversible or incapacitating illness. Hazardous waste is defined in the California Code of Regulations, Title 22, Section 66261.3. The characteristics of hazardous waste are Ignitability (66261.21), Corrosivity (66261.22), Reactivity (66261.23), and Toxicity (66261.24). Certain wastes are called "Listed Wastes" and are found in the California Code of Regulations, Title 22, Sections 66261.30 through 66261.35. Wastes appear on the lists because of their known hazardous natures or because the processes that generate them are known to produce hazardous wastes (which are often complex mixtures).

B. Historical Review, Regulatory Records Review, and Field Reconnaissance

❑ Historical Review

SCS Engineers conducted a review of various sources of information to determine the historical use of the Project site, including a review of USGS topographic maps, historical aerial photographs, and a search of the EDR-Sanborn® collection of maps. Please refer to *Technical Appendix G1* of this EIR for a detailed description of the results of this research. Based on this review, SCS Engineers conclude that the northern portion of the Project site was used for dwellings and possibly agriculture as early as 1938. Between 1953 and 1967, the northern half of the Project site was developed with stables and a training center for race horses, complete with a racetrack. Large areas of the Project

site appear to have been used for pasture. By the end of the 1980s, most of the corrals, barns and other buildings on the Project site had been removed. The most recent aerial photograph available from 2010 (refer to Figure 2-4, *Aerial* Photograph) shows the horse track as being overgrown and no longer used. The southern half of the Project site appears to have been either vacant and undeveloped, or used for pasture over its history (SCS Engineers 2006 7-9).

❑ Regulatory Records Review

A database search for sites listed on various federal and state databases within one (1) mile of the Project site was obtained by SCS Engineers from EDR Environmental Information. A detailed description of the results of this review is provided in *Technical Appendix G1* to this EIR. The proposed Project site was not identified in any federal or state databases, indicating the site is not known by the federal or state government to pose any concerns to the environment.

The only site of potential concern within one mile of the Project site is the March ARB, located to the west of Heacock Street and in immediate proximity to the Project site. Ten records of contamination were identified associated with the March ARB, although some sites may be listed on more than one database.

March AFB has been used for aircraft maintenance and repair, refueling operations, and training activities since 1918. Beginning in 1980, efforts began to identify and clean up hazardous waste sites on the base. Eventually, forty-four separate sites within the base were identified as contaminated sites. These included fire training areas, landfills, underground tank installations, an engine test cell, and recorded spills. The identified areas of contamination included three zones of groundwater contamination (SCS Engineers 2006 10-11).

Continued investigations determined that the contamination had migrated off base and impacted private wells down-gradient (i.e., southeast) of the base. Groundwater wells on the base and contaminated wells off base were shut down in the late 1980s. Based on maps included in Appendix D to the Phase I ESA (EIR *Technical Appendix G1*), groundwater beneath the northern edge and southern half of the Project site appears to have been impacted by these plumes. There is no evidence that any activities on the Project site may have contributed to this contamination (SCS Engineers 2006 11).

By the early 1990s, most of the source areas of the contamination on the March ARB had been remediated. A contaminated groundwater interception and treatment system was in operation to remove volatile organic compounds (VOCs) such as TCE and PCE from the groundwater and prevent their further migration off base (SCS Engineers 2006 11).

Remedial efforts are ongoing. The most recent information suggests that attempt to remediate groundwater beneath the base and prevent its continued migration off base have largely been successful. However, no attempt has been made to clean up contaminated groundwater off base. In the absence of continued action from March ARB, this groundwater will eventually be remediated by natural attenuation. However, until natural processes succeed in removing the contaminants, the groundwater beneath the Project site will likely remain contaminated (SCS Engineers 2006 11). Based on the reported depth to groundwater below the Project site (i.e., approximately 44 feet below the ground surface (EMWD 2010)), the prevailing lithology (fine grain sediments), and the opinion

of SCS Engineers, there is no significant potential for vapor intrusion into future buildings on the Project site due to the March ARB plume (SCS Engineers 2006 11).

The EDR database did not identify any landfills within one mile of the Project site. Several landfills once associated with the March ARB are within one mile of the Project site, although these landfills have been excavated and removed to another disposal site beyond one mile from the Project site (SCS Engineers 2006 12).

❑ Field Reconnaissance

An inspection of the proposed Project site and surrounding area was conducted by SCS Engineers on December 20, 2006 (SCS Engineers 2006 1). Appendix B to the Phase I Environmental Site Assessment (EIR *Technical Appendix G1*) includes a sketch map and photographs of the Project site. During the field survey conducted in 2006, SCS Engineers observed one well on the site along the center fence line, approximately 650 feet east of Heacock Street and 1,030 feet south of Iris Avenue (SCS Engineers 2006 5). A subsequent survey by the Project's civil engineer located three (3) additional wells along the perimeter of the Project site (adjacent to the eastern, southeastern and southwestern boundaries of the Project site). These wells are used by the Department of the Air Force to monitor groundwater contamination levels resulting from historical contamination at the March ARB facility. During the 2006 field survey, SCS Engineers also observed an unidentified monument cover along Heacock Street, just to the south of the Perris Valley Storm Drain Channel (SCS Engineers 2006 5).

SCS Engineers also identified a small single-story dwelling in the north-central portion of the Project site, which was identified as having the potential to contain asbestos since the structure was constructed prior to 1938, when use of asbestos was common in the construction of buildings. A raised concrete foundation also was noted near the dwelling. Subsequent to 2006 and prior to release of the NOP for this EIR, the single-story structure on-site was demolished. SCS Engineers surveyed the Project site again on May 11, 2011, and inspected the former location of the structure. SCS Engineers observed small amounts of construction debris (e.g., concrete, bricks, wood) at the structure's former location; however, no asbestos containing materials were observed. Furthermore, the Project site is routinely disked. If any asbestos containing materials had been present at the former location of the structure, they would have been incorporated within the soil matrix during disking activities and would pose no health risk (SCS Engineers 2011).

No above-ground storage tanks (ASTs) or evidence of underground storage tanks (USTs), including vents, pipes, dispensers, fill ports, etc., were observed on the site. However, as the site has been occupied since at least 1938, it is possible that USTs associated with agricultural use were developed on-site prior to the need for permits for such facilities (SCS Engineers 2006 6).

C. Airport Hazards

The Project site is located east of Heacock Street, which separates the property from the March ARB/IPA. In 2010, the March Joint Powers Authority (JPA) prepared a Joint Land Use Study for the March ARB/IPA, which identifies land use recommendations within the airport's safety zones (March JPA 2010). That study is in draft form and a NOP for its required EIR was not yet prepared at the time the NOP for this EIR was released for public review. The Joint Land Use Study, which is proposed to ultimately replace the existing 1984 Riverside County Airport Land Use Plan (RCALUP) for March ARB, is discussed in this EIR with acknowledgement that it is not an

approved plan. Although the 1984 RCALUP is based on data that is 20 years old and does not reflect current operating conditions at the facility, the 1984 RCALUP is nonetheless the adopted County airport plan for the March ARB and evaluated as such in this EIR.

The 1984 RCALUP identifies the Project site as being located within Safety Zone Area 2. The RCALUP identifies that lands located within Area 2 are required to provide for an avigation easement to fully disclose the existing and future airport operations in the vicinity to future owners. There are no other land use restrictions or safety issues identified for Safety Zone Area 2 in the RCALUP (Riverside County Airport Land Use Commission 1986) applicable to the Project site.

Pursuant to the March Air Reserve Base Air Installation Compatible Use Zone Study (AICUZ) commissioned by the United States Air Force (Department of the Air Force 2005 3-3), and as depicted on Figure 6-5, Air Crash Hazards, of the Moreno Valley General Plan (City of Moreno Valley 2006a) the Project site is not located within or adjacent to any areas that are subject to air crash hazards. Similarly, the proposed Joint Use Study for March ARB/IPA identifies the Project site as being located in proposed "Zone D," which is not within a crash hazard zone but would require an avigation easement to disclose the airport's operational characteristics to property owners (March JPA 2010 Ch. 3).

D. Wildland Fire Hazards

❑ Fire Hazard Potential

According to Figure 5.5-2 of the City of Moreno Valley General Plan EIR (City of Moreno Valley 2006b 5.5-5), the Project site and surrounding vicinity are not identified as being located within a "Substantial Fire Risk" or "Very High Fire Risk" area. Areas subject to wildland fire hazards occur at the north and east ends of the City of Moreno Valley, in addition to open space lands located northerly of Lake Perris. The closest area to the proposed Project site identified as being subject to wildland fire hazards occurs approximately 2.5 miles east of the Project site within the open space areas located north of Lake Perris. Annual disking occurs on the Project site as required by the Fire Department to clear vegetative cover to reduce the risk of fire.

❑ Moreno Valley Fire Department

Fire service to the Project area is provided by the Moreno Valley Fire Department (MVFD). The MVFD operates six fire stations with six paramedic engine companies and three aerial truck companies, a Fire Prevention Bureau for planning and inspections, along with Emergency Services and Volunteer Programs. The MVFD provides fire suppression, emergency medical rescue, hazardous materials response, planning and inspections for businesses, and hazard reduction abatement to the citizens of Moreno Valley.

The proposed Project site is located approximately 1.25 roadway miles southwest of MVFD Station No. 65 (Kennedy Park), which is located at 15111 Indian Street provides primary fire protection services to the Project area. Secondary fire protection services is provided by MVFD Station 91 (College Park), located approximately 2.2 roadway miles from the Project site at 16110 Lasselle Street.

E. Applicable Environmental Regulations

Various government organizations share responsibility for the safe disposal of contaminants, toxic wastes, and the clean-up of hazardous substance spills. On a federal level, The National Priority List (NPL) is the Environmental Protection Agency's (EPA's) database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Superfund program. Superfund is the federal government's program to clean-up the nation's uncontrolled hazardous waste sites. The Superfund clean-up process begins with site discovery or notification to EPA of possible releases of hazardous substances. Once discovered, sites are entered into the Comprehensive Environmental Response, Compensation, and Liability Information System. The EPA then evaluates the potential for a release of hazardous substances from the site through established steps in the Superfund cleanup process. State and regional agencies have asked local governments to participate in the establishment of disposal sites, uniform handling practices, and regulations to ensure adequate toxic substance waste disposal and spill clean-up.

In California, the Department of Toxic Substances Control (DTSC) is charged with the protection of Californians from exposure to hazardous wastes. DTSC operates programs to deal with improper hazardous waste management and to prevent releases of hazardous waste by ensuring that those who generate, handle, transport, store, and dispose of wastes do so properly. DTSC also takes enforcement actions against those who fail to manage hazardous wastes appropriately. DTSC regulates hazardous waste in California primarily under the authority of the federal Resource Conservation and Recovery Act of 1976, and the California Health and Safety Code.

Most local hazardous waste programs are managed through the Riverside County Department of Environmental Health (DEH), which manages the collection of household hazardous waste. Businesses that transport or dispose of wastes are required to use a licensed hazardous waste hauler to collect and transport their waste. Any person who transports hazardous waste in a vehicle must have a valid registration issued by the DTSC (DTSC 2007).

4.7.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to hazards and hazardous materials if the Project or any Project-related component would:

1. *Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials;*

2. *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment;*

3. *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;*

4. *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result would it create a significant hazard to the public or the environment;*

5. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area;*

6. *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;*

7. *Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan; or*

8. *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.*

4.7.3 IMPACT ANALYSIS

Threshold 1:	***Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***
Threshold 2:	***Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

❑ **Impacts Analysis for Existing Site Conditions**

The north-central portion of the Project site contains small amounts of construction debris (e.g., concrete, bricks, wood). The construction debris is the remnants of a single-story dwelling that was constructed on the site prior to 1938 and was demolished sometime between 2006 and 2011. Based on a field survey conducted by SCS Engineers in 2011, the construction debris present on the subject property includes no hazardous materials. No asbestos containing materials were observed among the construction debris (SCS Engineers 2011). No other potentially hazardous materials were observed on the Project site (SCS Engineers 2006 12-13).

Groundwater beneath much of the Project site is thought to be contaminated due to historic operations at the March ARB. Groundwater contamination includes the presence of VOCs, which can migrate into nearby buildings under certain circumstances. However, due to the depth to groundwater below the Project site (i.e., 150 feet below the ground surface), the prevailing lithology (fine grain sediments), and the expert opinion of SCS Engineers, there is no significant potential for vapor intrusion into future buildings on the Project site due to the March ARB plume (SCS Engineers 2006 13). Moreover, due to remediation measures undertaken at the March ARB to address groundwater contamination, water quality beneath the Project site is expected to improve over time (SCS Engineers 2006 13). Accordingly, contaminated groundwater beneath the Project site does not pose a significant hazard to the Project site's environment or to members of the public who would be employed by or visit the Project.

One (1) groundwater monitoring well is located within the central portion of the Project site and three (3) additional monitoring wells are located near the perimeter of the Project site. The existing monitoring well in the central portion of the Project site and one (1) of the wells near the perimeter of the site would be relocated as part of the proposed Project's construction activities. The monitoring

well relocation procedure would involve the abandonment of two existing wells and the drilling of two new monitoring wells. The replacement wells would be drilled in an appropriate and accessible location on the Project site as approved by the USAF. The abandonment of the existing monitoring wells and the construction of the new monitoring wells would be required to occur in accordance with applicable State of California well standards to preclude the release of hazardous materials (i.e., contaminated groundwater). With mandatory compliance to State standards, no substantial adverse impacts are anticipated from relocating the on-site monitoring wells. With mandatory adherence to State well standards, it is highly unlikely and not reasonably foreseeable that the monitoring wells would release contaminated groundwater. A significant hazard to the public or the environment would not be created and impacts would be less than significant.

❑ Temporary Construction-Related Activities

As described in Subsection 3.3.5(A) of this EIR, the proposed Project would be constructed in two (2) phases. Phase 1 would include site preparation, all mass grading and utility installation, and construction of the proposed building on Parcel 1. Phase 2 would include construction of the proposed buildings on Parcels 2, 3, and 4. Phase 1 is estimated to last approximately 12 months and Phase 2 is estimated to last approximately 10 months. Heavy equipment would be used, which would be fueled and maintained by substances such as oil, diesel fuel, gasoline, hydraulic fluid, and other liquid materials that would be considered hazardous if improperly stored or handled. In addition, materials such as paints, roofing materials, solvents, and other substances typically used in building construction would be located on the Project site during construction.

Improper use, storage, or transportation of hazardous materials could result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. This is a standard risk on all construction sites, and there would be no greater risk for improper handling, transportation, or spills associated with the proposed Project than would occur on any other similar construction site. Accidental spills that pose a significant hazard to the public or the environment would be highly unlikely and not reasonably foreseeable; as such, impacts would be less than significant.

❑ Long-Term Operation

As discussed in EIR Section 3.0, the future tenants that would occupy buildings on the Project site are not yet identified. Future uses on-site are assumed to be any of those uses permitted by the Moreno Valley Industrial Area Plan's (MVIAP) "Industrial" designation. For purposes of analysis within this EIR, it is anticipated that Parcels 1-3 would be primarily occupied by warehouse distribution land uses and Parcel 4 would be primarily occupied by light industrial land uses. Uses permitted in the MVIAP Industrial designation include specific types of industrial and manufacturing services and commercial uses. A complete list of permitted and conditionally permitted uses can be found in Section III of the MVIAP document (Moreno Valley 2002 III-1).

Based on the list of permitted uses contained in the MVIAP's Industrial zone, it is possible that hazardous materials could be used during the course of a future tenant's daily operations. State and Federal Community-Right-to-Know laws allow the public access to information about the amounts and types of chemicals in use at local businesses. Laws also are in place that require businesses to plan and prepare for possible chemical emergencies. Any business that occupies a building on the Project site and that handles hazardous materials (as defined in Section 25500 of California Health and Safety Code, Division 20, Chapter 6.95) will require a permit from the Riverside County

Department of Environmental Health (DEH) Hazardous Materials Management Division (HMM) in order to register the business as a hazardous materials handler. Such businesses also are required to comply with California's Hazardous Materials Release Response Plans and Inventory Law, which requires immediate reporting to the Riverside County DEH and the State Office of Emergency Services regarding any release or threatened release of a hazardous material, regardless of the amount handled by the business. In addition, any business handling at any one time, greater than 500 pounds of solid, 55 gallons of liquid, or 200 cubic feet of gaseous hazardous material, is required, under Assembly Bill 2185 (AB 2185), to file a Hazardous Materials Business Emergency Plan (HMBEP). A HMBEP is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material. The intent of the HMBEP is to satisfy federal and state Community Right-To-Know laws and to provide detailed information for use by emergency responders.

If businesses that use or store hazardous materials occupy the Project, the business owners and operators would be required to comply with all applicable federal, state, and local regulations to ensure proper use, storage, use, emission, and disposal of hazardous substances. With mandatory regulatory compliance, the Project is not expected to pose a significant hazard to the public or the environment through the routine transport, use, storage, emission, or disposal of hazardous materials, nor would the Project increase the potential for accident conditions which could result in the release of hazardous materials into the environment.

In addition, standard conditions of approval will be imposed on the Project by the MVFD, which requires future occupants to obtain a permit, "…to maintain, store, use, or handle materials, or to conduct processes which produce conditions hazardous to life or property, or to install equipment used in connection with such activities," and further notes that inspection of the premises by the Fire Chief may occur at any time in accordance with Moreno Valley Municipal Code (MVMC) Section 8.36.100. A separate condition of approval identified by the MVFD further requires permits be obtained prior to Certificate of Occupancy for any uses that would, "…store, dispense, use, or handle hazardous materials…" and requires applications for such permits to be accompanied by a Hazardous Materials Management Plan (HMMP) to identify operational procedures that would minimize or attenuate the potential for hazards to the environment.

With mandatory regulatory compliance, along with mandatory compliance with the Project's conditions of approval that will require the preparation of site-specific HMMPs and permits for any uses that may maintain, store, use, or handle hazardous materials, potential hazardous materials impacts associated with long-term operation of the Project are regarded as less than significant and mitigation is not required.

Threshold 3:	***Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

The nearest school facility is Rainbow Ridge Elementary School, located 0.25-mile east of the Project site. Although the existing elementary school uses and buildings would be separated from the Project site by a distance of more than 0.25 mile, the western boundary of the school site and the eastern boundary of the proposed Project site are located at a distance of approximately 0.25 mile; accordingly, for purposes of analysis under this threshold, it is assumed that the Rainbow Ridge

Elementary School facility occurs within 0.25 mile of the Project site. There are no other existing or proposed school facilities within 0.25 mile of the Project site.

The potential for the Project to emit or handle hazardous or acutely hazardous materials is addressed above under Thresholds 1 and 2. As noted, if businesses that use, store, or emit hazardous materials occupy the Project site, the business owners and operators would be required to comply with all applicable federal, state, and local regulations to ensure proper use, storage, and disposal of hazardous substances. Moreover, and as will be required by the Project's conditions of approval, such uses also would be subject to additional review and approval by the MVFD, including requirements to obtain permits for uses that may result in the storage, use, or handling of hazardous materials, along with requirements for the preparation of a HMMP to identify operational procedures that would minimize or attenuate the potential for hazards to the environment.

There are no special requirements that pertain to hazardous materials handling near schools. Federal, state, and local laws require all businesses classified as "Hazardous Materials Handlers" by the Riverside County Department of Environmental Health to prepare an HMBEP. A Hazardous Materials Handler is identified as any facility storing more than 55 gallons, 500 pounds or 200 cubic feet of a hazardous material or hazardous waste at any one time. For acutely or extremely hazardous materials, these amounts are less. All handlers are required to disclose their inventory of hazardous materials in the form of an HMBEP. With mandatory regulatory compliance, the Project would not pose a significant hazard to schools. Federal, state, and local laws strictly regulate the storage and use of hazardous materials.

Due to the distance between the Project site and the nearest elementary school, along with federal and state laws and requirements and Project-specific conditions of approval addressing the potential for using or storing hazardous materials, the potential for the Project to adversely impacts schools by the emission or handling of hazardous materials is less than significant and mitigation is not required.

Threshold 4:	***Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

According to the Phase I ESA conducted for the Project site (SCS Engineers 2006 9-10) and a review of the State of California Department of Toxic Substances Control EnviroStor database, the Project site is not located on or included on any list of hazardous materials sites complied pursuant to California Government Code Section 65962.5. Therefore, no impact would occur.

Threshold 5:	***For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?***

The Project site is located east of Heacock Street, which separates the property from the adjacent March ARB/IPA. According to the March Air Reserve Base AICUZ (July 2006), the proposed Project site is located outside of the crash zones associated with the March ARB, indicating that the Project site is not subject to any significant safety hazards associated with the March ARB facility. According to the governing 1984 RCALUP the proposed Project site is located within Safety Zone

Area 2, which is not identified as an area subject to substantial safety hazards associated with airport operations but that requires an avigation easement. Similarly, the pending update to the 1984 RCALUP prepared by the March JPA in 2010 identifies the Project site in proposed "Zone D," which is not within a crash hazard zone but would require an avigation easement to disclose the airport's operational characteristics to property owners (March JPA 2010 Ch. 3). The Project would be required to provide for an avigation easement to fully disclose the existing and future airport operations in the vicinity, but no restrictions on use of the site for light industrial/warehouse development is identified by the RCALUP. The draft March JPA/IPA Joint Land Use Study states that property within proposed Zone D should not contain tall objects, electronic forms of interference, or land uses that attract birds such as certain farm crops, water bodies, and flood control facilities that hold water for more than 48 hours (March JPA 2010 Ex. 3-4, Zone D). In addition, all detention basins proposed on the site are designed to contain a bottom of sandy loam soils (24-inches deep) with 18 inches of rock underneath. A sub-drain system also is designed within the rock portion of the basin. According to Thienes Engineering, with these components that promote infiltration and filtration through the sandy loam, the basins will drain within the required 48 hours, and would therefore not attract birds that could interfere with March ARB airport operations or pose a safety hazard for aircraft (Weil 2012).

Therefore, based on a review of the 1984 RCALUP, the 2010 draft March JPA/IPA Joint Land Use Study and the March Air Reserve Base AICUZ, the proposed Project site would not be subject to safety hazards associated with operations at the nearby March ARB. Accordingly, a significant impact would not occur.

Threshold 6: For a project within the vicinity of a private airstrip or heliport, would the Project result in a safety hazard for people residing or working in the Project area?

The Project site is located approximately 7.6 miles north of the privately-owned public use Perris Valley Airport, and the Project site is located well outside of the Perris Valley Airport Influence Area. The northern limits of the Airport Influence Area for this facility extend to just southerly of Nuevo Road, or approximately 5.6 miles south of the Project site. There are no heliports in the Project vicinity. Because the Project site is not located within the Airport Influence Area for any private airstrips or heliports, the safety of employees and visitors on the Project site would not be affected by private airstrips or heliports, and no impacts would occur with implementation of the proposed Project.

Threshold 7: Would the Project impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan?

The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route (City of Moreno Valley 2006a 6-1-6-12), so there is no potential for the Project to adversely affect an emergency response or evacuation plan. During construction and at Project buildout, the proposed Project would be required to maintain adequate emergency access for emergency vehicles. As part of the City's discretionary review process for Tentative Parcel Map No. 35879, the MVFD conducted a review to ensure that appropriate emergency ingress and egress would be available to and from each parcel and building to ensure public safety, and determined that the development as proposed would not substantially impede emergency response times in the local

area. Accordingly, implementation of the proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan, and no impacts would occur.

Threshold 8: Would the Project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Lands surrounding the Project site generally consist of undeveloped lands that are routinely subject to disking, improved roadways, urban (residential) development, light industrial development, and the March ARB facility. According to Figure 5.5-2 of the City of Moreno Valley General Plan EIR (City of Moreno Valley 2006b), the Project site is located approximately 2.5 miles westerly of the nearest areas subject to wildland fire hazards. The Project site is buffered from open space lands located northerly of Lake Perris by urban development, consisting primarily of medium density residential developments located along Lasselle Street.

Implementation of the proposed Project would result in converting the primarily undeveloped condition of the site to industrial business center land uses. The low wildfire hazard on the site would be further reduced by the complete removal of flammable vegetation and the construction of structures in accordance with the Uniform Fire Code administered by the MVFD. The Project proposes parking and drive aisles on the perimeter of all on-site structures along with irrigated landscaped areas. In addition, and as noted above, the Project site is not located in close proximity to any lands subject to wildland fire hazards.

As standard conditions of Project approval, the City will require the Project to install fire hydrants and supply appropriate water pressure per the requirements of the MVFD (refer to Figure 3-7, *Conceptual Water Plan*, for approximate location of fire hydrants). The MVFD will conduct a review of future buildings on-site for compliance with the California Building Code (CBC), California Fire Code (CFC) and other related codes which are in force at the time.

Therefore, because the Project site is not located within or in close proximity to areas subject to wildland fire hazards, would incorporate design features that would minimize the potential for fire hazards on-site, and would be subject to future review by the MVFD for compliance with all applicable fire protection laws, ordinances, and requirements, the Project would not expose people or structures to risk of loss, injury, or death related to wildfires. Accordingly, no impacts would occur.

4.7.4 CUMULATIVE IMPACT ANALYSIS

As discussed above under Thresholds 1 and 2, implementation of the proposed Project would involve the construction of uses in conformance with the MVIAP's "Industrial" zoning designation. Although the end users are not presently known, if businesses that use or store hazardous materials occupy the Project, the business owners and operators would be required to comply with all applicable federal, state, and local regulations to ensure proper use, storage, and disposal of hazardous substances. Such uses also would be subject to additional review and permitting requirements by the MVFD. Similarly, any other developments in the area proposing the construction of uses with the potential for use, storage, or transport of hazardous materials also would be required to comply with applicable federal, state, and local regulations, and such uses would be

subject to additional review and permits from their applicable fire department. Therefore, the potential for release of toxic substances or hazardous materials into the environment, either through accidents or due to routine transport, use, or disposal of such materials, would be reduced to a less than significant cumulative level. Accordingly, the Project's potential to contribute to a cumulatively significant hazardous materials impact would be less than significant.

The Project site is located within one-half mile of an elementary school. As stated above, the Project would be required to comply with numerous federal, state, and local regulations regarding the use, storage, transport, and disposal of hazardous materials and all businesses located in the State of California are subjected to the same strict requirements. With mandatory regulatory compliance, the Project would not cumulatively contribute to a significant hazards/hazardous materials impact on any public or private schools.

Based on a site-specific ESA conducted for the site, it was concluded that the site does not contain any recognized environmental concerns and the site is not located on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Because the site does not contain recognized environmental concerns, there is no potential for contributing to the release of hazardous materials into the environment due to existing site conditions. If hazardous materials happened to be encountered beneath the surface of the site during grading or construction, the materials would be handled and disposed of in accordance with regulatory requirements and the Project's mitigation requirements (refer to Subsection 4.7.7). Therefore, the Project would not contribute to a cumulatively significant hazardous materials impact associated with the potential presence of existing hazardous materials or substances.

As discussed above under Threshold 5, although the Project site is located in close proximity to the March ARB, the site is not identified as being subject to hazards associated with operations at the March ARB. If other developments are proposed within the March ARB/IPA influence area, such developments would be required to demonstrate compatibility with airport operations, as identified in the 1984 RCALUP and the March ARB AICUZ. Because other developments within the March ARB/IPA influence zone cannot be implemented if they are not compatible with these documents, a cumulatively significant impact associated with airport hazards would not occur.

The proposed Project site is not located within close proximity of any private airstrips, and therefore has no potential to result in cumulatively significant impacts associated with such facilities.

The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route; therefore, there is no potential for the Project to contribute to any cumulative impacts regarding emergency management planning.

As discussed above under the analysis of Threshold 8, the Project site is not located within or in close proximity to areas identified as being subject to wildland fire hazards by the Moreno Valley General Plan. Furthermore, as the surrounding area develops, lands that are currently vacant would be developed in a manner consistent with jurisdictional requirements for fire protection, and would generally decrease the fire hazard potential in the local area. As such, within the cumulative context of the Project vicinity, fire hazards are anticipated to decline overtime, and cumulatively significant impacts associated with wildland fire hazards would not occur.

4.7.5 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Compliance with these measures was assumed throughout the above analysis of hazards and hazardous materials.

PR 4.7-1 The Project is required to comply with all federal, state, and local hazardous materials regulations, as overseen and enforced by the California Department of Toxic Substances Control, the Riverside County Department of Environmental Health and the Moreno Valley Fire Department.

PR 4.7-2 Groundwater monitoring wells requiring removal shall be abandoned in accordance with the State of California Well Standards (Department of Water Resources Bulletins 74-81 & 74-90).

PR 4.7-3 New groundwater monitoring water wells shall be constructed in accordance with the State of California Well Standards (Department of Water Resources Bulletins 74-81 & 74-90).

PR 4.7-4 If underground storage tanks are discovered during the Project's grading operation, the tanks shall be removed in accordance with the State of California Underground Storage Tank Regulations (California Code of Regulations Title 23, Division 3, Chapter 16) under the oversight of the Riverside County Department of Environmental Health, Local Oversight Program.

PR 4.7-5 In the event that any subsurface hazardous materials or potentially hazardous materials are found during grading, the suspected hazardous materials are required to be properly disposed of in accordance with federal, state and Riverside County Department of Environmental Health requirements.

PR 4.7-6 Per the requirements Riverside County Department of Environmental Health and the California Health and Safety Code (HSC), Chapter 6.95, Sections 25500 - 25532, a Hazardous Materials Business Emergency Plan must be prepared by any future business on the Project site that handles a hazardous material or a mixture containing a hazardous material in quantities equal to or greater than a weight of 500 pounds, total volume of 55 gallons, 200 cubic feet (at standard temperature and pressure) for compressed gas, or any radioactive material Extremely Hazardous Substance or Waste, any amount of a Regulated Substance, or any amount of an Acutely Hazardous Material.

PR 4.7-7 The Project is required to comply with the following standard condition of approval imposed by the City of Moreno Valley: "Prior to issuance of a Certificate of Occupancy or Building Final, a 'Knox Box Rapid Entry System' shall be provided. The Knox-Box shall be installed in an accessible location approved by the Fire Chief. The Knox-Box shall be supervised by the alarm system and all exterior security emergency access gates shall be electronically operated and be provided with Knox key switches for access by emergency personnel."

PR 4.7-8 The Project is required to comply with the following standard condition of approval imposed by the City of Moreno Valley: "Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall be responsible for obtaining underground and/or above ground tank permits for the storage of combustible liquids, flammable liquids, or any other hazardous materials from both the County of Riverside Community Health Agency Department of Environmental Health and the Fire Prevention Bureau."

PR 4.7-9 The Project is required to comply with the following City of Moreno Valley requirement: "Prior to issuance of Certificate of Occupancy, permits are required to store, dispense, use or handle hazardous material; to conduct processes which produce conditions hazardous to life or property; or to install equipment used in connection with such activities. Such permits shall not be construed as authority to violate, cancel or set aside any of the provisions of this code. Such permit shall not take the place of any license required by law. Applications for permits shall be made to the Fire Prevention Bureau in such form and detail as prescribed by the Bureau. Applications for permits shall be accompanied by such plans as required by the Bureau. Each application for a permit shall include a hazardous materials management plan (HMMP). The HMMP shall be posted adjacent to (other) permits when an HMMP is provided. The HMMP shall include a facility site plan designating the following:

a) Storage and use areas;
b) Maximum amount of each material stored or used in each area;
c) Range of container sizes;
d) Locations of emergency isolation and mitigation valves and devises;
e) Product conveying piping containing liquids or gases, other than utility-owned fuel gas lines and low-pressure fuel gas lines;
f) On and off positions of valves for valves which are of the self-indicating type;
g) Storage plan showing the intended storage arrangement, including the location and dimensions of aisles. The plans shall be legible and approximately to scale. Separate distribution systems are allowed to be shown on separate pages; and
h) Site plan showing all adjacent/neighboring structures and use.

Each application for a permit also shall include a hazardous materials inventory statement (HMIS). Permits issued by the Fire Prevention Bureau shall be kept on the premises designated therein at all times and shall be posted in a conspicuous location on the premises or shall be kept on the premises in a location designated by the Fire Chief. Permits shall be subject to inspection at all times by an officer of the fire department or other persons authorized by the Fire Chief."

4.7.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Thresholds 1 and 2: Less than Significant Impact. During Project operation and with mandatory compliance to federal, state and local regulations, the proposed Project would not create a significant

hazard to the public or the environment due to routine transport, use, disposal, or upset of hazardous materials.

Threshold 3: Less than Significant Impact. Although the Project site is located approximately 0.25 mile from the nearest school facility (Rainbow Ridge Elementary School), mandatory compliance with applicable federal, state, and local regulations, including regulations and permitting requirements from the MVFD, would ensure that operation of the proposed Project would not expose school students or staff to significant effects associated with the emissions or handling of hazardous or acutely hazardous materials, substances, or waste. Accordingly, impacts to schools are evaluated as less than significant.

Threshold 4: No Impact. The Project site is not listed on any list of hazardous materials compiled pursuant to Government Code Section 65962.5.

Threshold 5: Less than Significant Impact. The Project site is located with the influence area of March ARB/ IPA, but is not located in areas subject to crash hazards associated with airport operations. The Project does not propose any features that would be considered hazardous to airport operations. Accordingly, the Project would pose a less than significant impact to operations at the March ARB.

Threshold 6: No Impact. The Project site is not located in the vicinity of a private airstrip or heliport and, therefore, has no potential to cause a safety impact to these facilities.

Threshold 7: No Impact. The Project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. No emergency facilities exist on the Project site, and the site does not serve as an emergency evacuation route.

Threshold 8: No Impact. The Project would not expose people or structures to a significant wildfire risk. The Project site is not located in close proximity to wildland fire hazard areas. The Project would develop a vacant site, thereby reducing the risk for wildfire on the property. The Project is subject to review and approval by the MVFD to ensure that features have been incorporated within the development to address potential fire hazards. As such, a significant impact due to wildland fire hazards would not occur.

4.7.7 MITIGATION

Although hazardous materials impacts would be less than significant, the following mitigation measures are recommended as precautions during the Project's construction process.

MM 4.7-1 Prior to grading permit issuance, the City shall verify that the Project's Grading Plan indicates: a) the location of all groundwater monitoring wells that will be preserved in place; b) the method used to flag, stake, or otherwise identify the location of the groundwater monitoring wells in the field; and c) any required grading procedures or precautions to be taken in the vicinity of the monitoring well locations.

MM 4.7-2 Prior to the issuance of grading permits, the City of Moreno Valley Land Development Division shall ensure that the Project's required Stormwater Pollution Prevention Plan (SWPPP) includes emergency procedures for accidental hazardous

materials releases during construction. The procedures shall include necessary personal protective equipment, spill containment procedures, and training of workers to respond to accidental spills/releases.

4.8 HYDROLOGY AND WATER QUALITY

The analysis in this subsection is based on a report prepared by Thienes Engineering, entitled, "Preliminary Hydrology Calculations for March Commerce Center," dated March 20, 2008, and included as *Technical Appendix H1* to this EIR.

The Project site is located within the boundary of two of the Riverside County Flood Control and Water Conservation District's (RCFCWCD's) Master Drainage Plans (MDP): the Perris Valley MDP, which applies to the portion of the Project site located southwest of the Perris Valley Storm Drain Channel (i.e., proposed Parcel 4), and the Sunnymead MDP, which applies to the remaining portion of the Project site. Hydrology information in this subsection, therefore, also was obtained from the Perris Valley MDP and the Sunnymead MDP (RCFCWCD 1991), which are herein incorporated by reference and available for public review at physical location and website address given in Section 7.0, References. The relationship of the proposed Project to the MDPs is further explained in this subsection.

With respect to water quality, the Project site is located within the jurisdiction of the Santa Ana Regional Water Quality Control Board (RWQCB). Water quality information for this subsection was obtained from the Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Plan (updated February 2008) and the Integrated Regional Water Management Plan (IRWMP) for the Santa Ana River Watershed (also referred to as "One Water One Watershed," dated November 16, 2010), prepared by the Santa Ana Watershed Project Authority. These documents are herein incorporated by reference and are available for public review at the physical locations and website addresses given in Section 7.0, References. Information in this subsection also relies on a report prepared by Thienes Engineering entitled "*Preliminary Water Quality Management Plan (WQMP) for March Business Center*," dated August 12, 2008, and included as *Technical Appendix H2* to this EIR.

4.8.1 EXISTING CONDITIONS

A. Regional Hydrology

The Project site is located in the Santa Ana River watershed, which drains a 2,650 square-mile area and is the principal surface flow water body within the region (SAWPA 2010 Ch. 3). The San Jacinto River drains the area in the vicinity of the Project site. It starts in the San Jacinto Mountains (approximately 30 miles southeast of the proposed Project site), runs westerly through the City of Canyon Lake, and typically discharges into Lake Elsinore. In wet years, the San Jacinto River will overflow the lake and connect with the Santa Ana River through the Temescal Wash (SAWPA 2010 Ch. 3).

The Project site's location within the Santa Ana River Watershed is depicted on Figure 4.8-1, *Santa Ana River Watershed Map*.

B. Site Hydrology

As documented in the Project's hydrology report (*Technical Appendix H1* to this EIR) and water quality management plan (*Technical Appendix H2* to this EIR), the Perris Valley Storm Drain Channel traverses the southwestern corner of the Project site and conveys drainage towards the southeast and south towards the San Jacinto River. Under existing conditions, the Perris Valley Channel splits the Project site into two separate drainage areas. The majority of the Project site is

located north of the Channel and flows are directed in a southerly direction, with flows discharging at a point approximately 260 feet west of the southeastern corner of the Project site. The portion of the Project site located southwest of the Channel generally drains towards the southeast, and discharges at the southeast corner of the property. Flows from both portions of the site are conveyed to the Perris Valley Channel. Flows are then conveyed by the Perris Valley Channel to the San Jacinto River. Figure 4.8-2, *Existing Conditions Hydrology Map,* depicts the drainage pattern of the site under existing conditions.

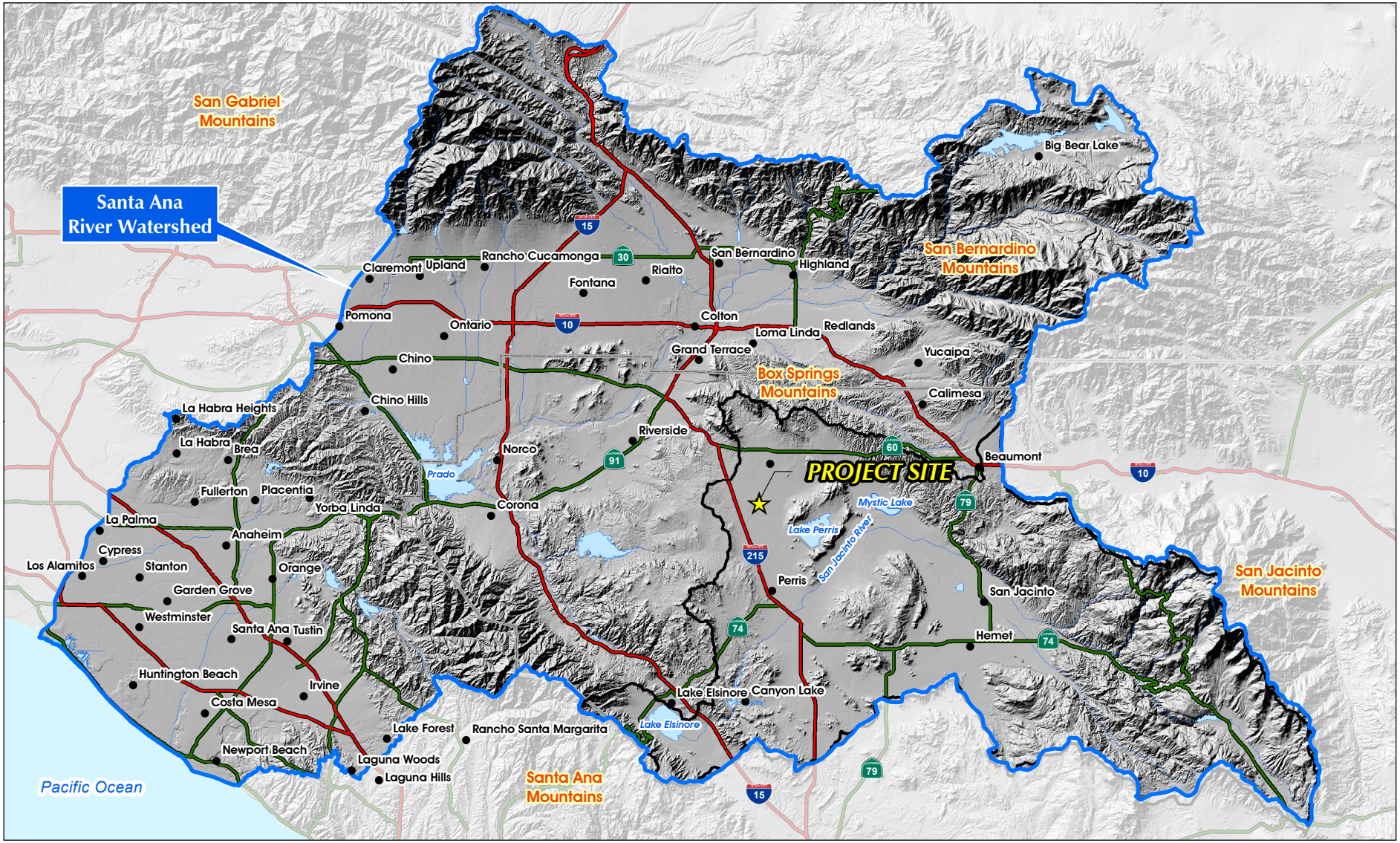
C. Perris Valley and Sunnymead Master Drainage Plans

The RCFCWCD has prepared a number of Master Drainage Plans (MDPs) within the San Jacinto River Watershed, which were created to identify master-planned drainage and flood control facilities that are needed to safely convey the runoff of 100-year frequency storms. As previously noted, the portion of the Project site located southerly of the Perris Valley Channel (i.e., proposed Parcel 4) is located within the Perris Valley MDP, as shown on Figure 4.8-3, *Perris Valley Master Drainage Plan*, while the northern portion of the site is located in the Sunnymead MDP, as shown on Figure 4.8-4, *Sunnymead Master Drainage Plan*. The Perris Valley MDP was completed in May 1987 and revised in 1991, while the Sunnymead MDP was completed in October 1978. The Perris Valley Area Drainage Plan (ADP) and the Sunnymead ADP are the financing mechanisms for the planned facilities identified in the Perris Valley and Sunnymead MDPs, respectively.

The MDPs address the current and future drainage needs of the Project area and specify facilities capable of economically relieving flooding problems within the plan areas. The MDPs and ADPs include estimates of facility capacity, sizes, and costs. The ADPs act as a financing mechanism used to offset taxpayer costs for planned master drainage facilities by imposing fees on new development within the ADP areas. The Sunnymead ADP identifies two drainage lines along Iris Avenue and Heacock Street (Lines B-19 and B, respectively), in addition to the Perris Valley Channel (referred to as Line A in the ADP). Of these facilities, Line B-19 has been constructed in association with improvements to Iris Avenue and Heacock Street, and Line A (Perris Valley Channel) also is constructed through the Project site. Line B (Heacock Channel) has not been constructed and consists of an unimproved, dirt lined channel with rip rap. `

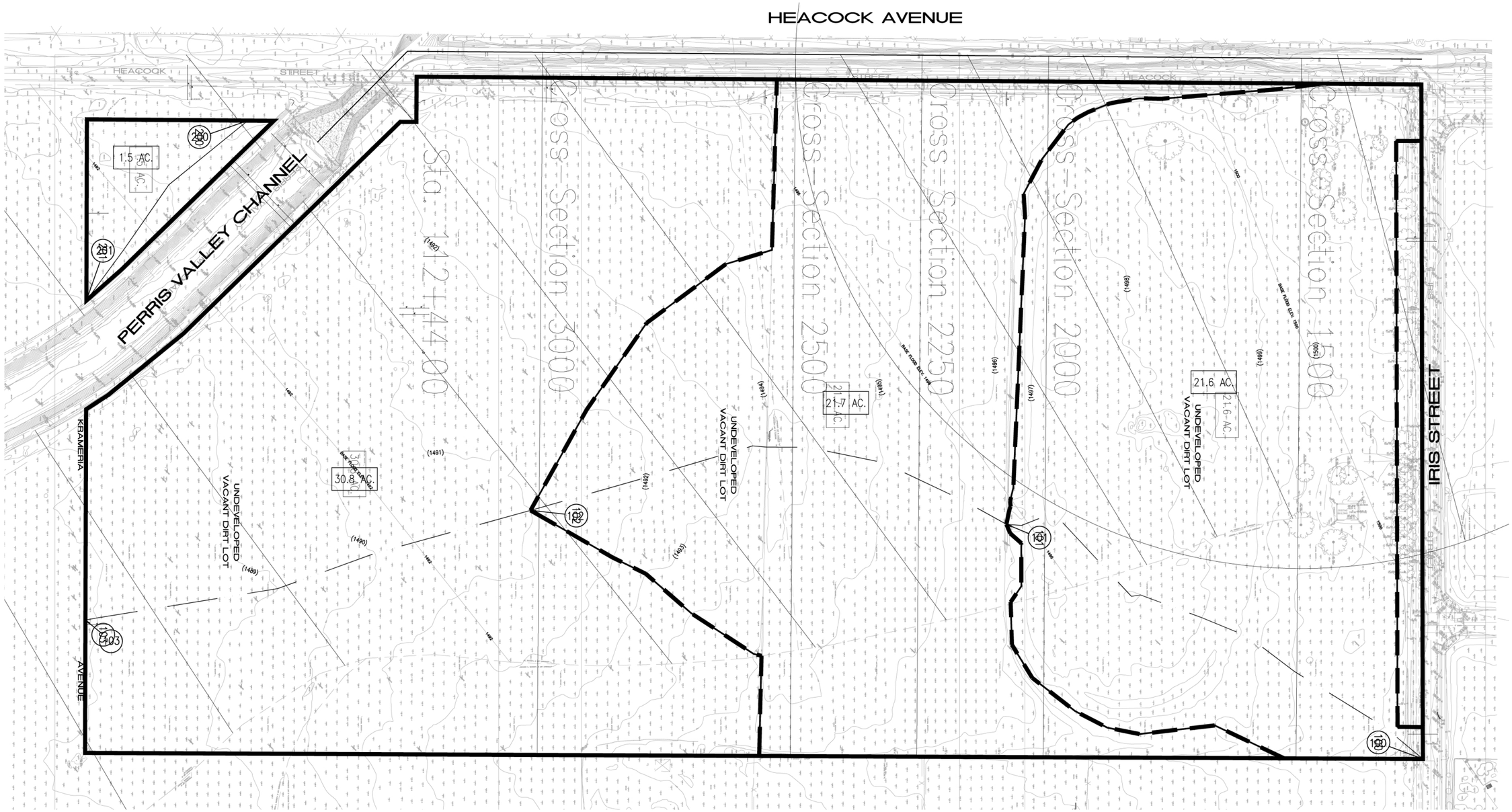
D. Flooding and Dam Inundation

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06065C 0765 G, dated August 28, 2008, the majority of the site located northerly of the Perris Valley Storm Drain Channel occurs within a designated Special Flood Hazard Zone. Flood Zones identified on the site (Zones AH and AO) indicate that the majority of the northern portion of the Project site is subject to flood depths of 1 to 3 feet (usually areas of ponding or sheet flow on sloping terrain). Additionally, the Perris Valley Storm Channel also is identified as Zone D, which is defined as areas in which flood hazards are undermined but possible. The southwestern portion of the Project site (i.e., proposed Parcel 4) is located within Flood Zone X (Shaded), indicating areas of moderate flood hazard (greater than 0.2% annual chance), usually consisting of the area between the limits of the 100-year and 500-year floods. Zone X (Shaded) also is used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year flood, or shallow flooding areas with average depths of less than one foot or drainage areas less than one square mile.. The FEMA FIRM for the Project area is depicted on Figure 4.8-5, *FEMA Flood Insurance Rate Map*.



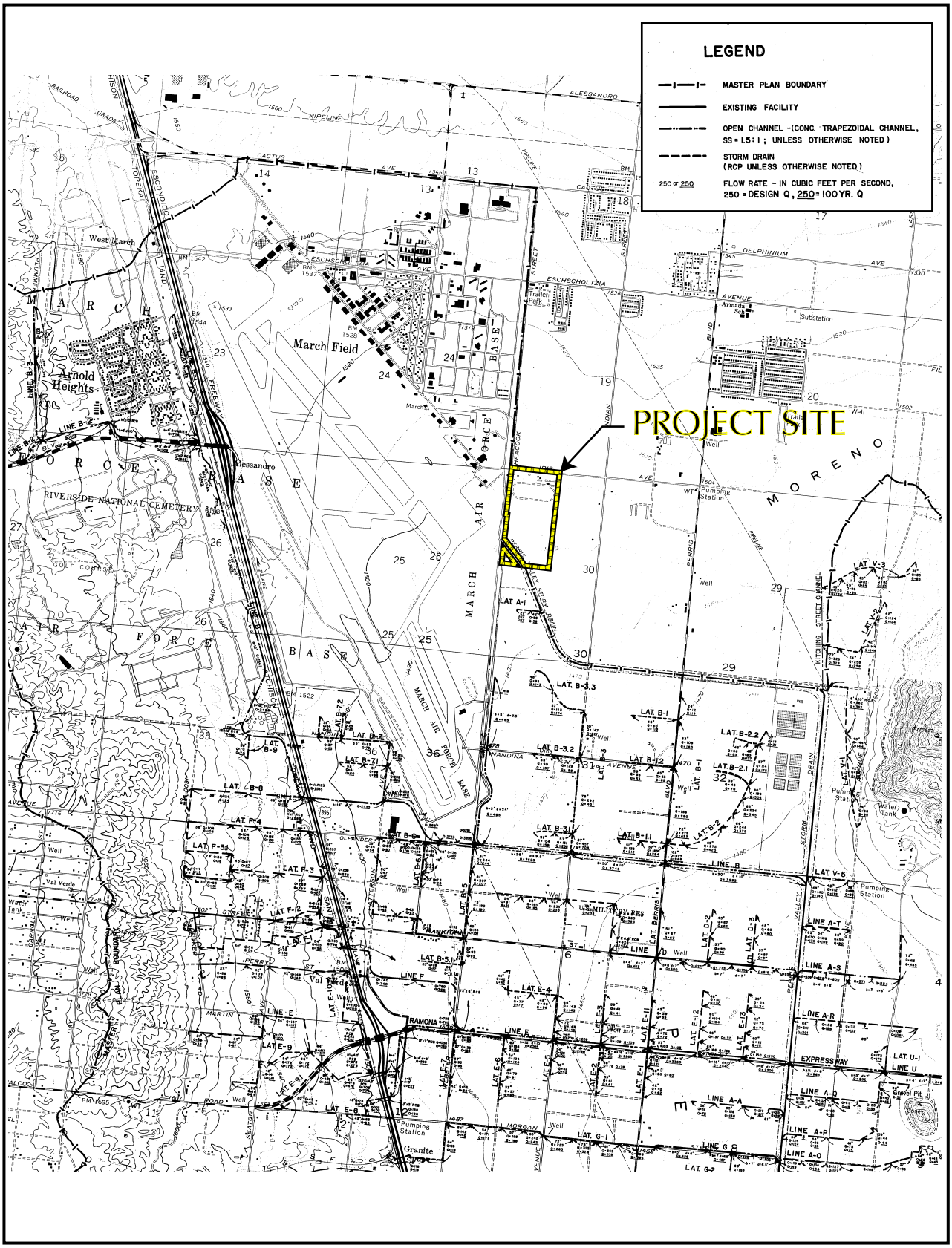
Source: SAWPA, RCTLMA (2011)

Figure 4.8-1
Santa Ana River Watershed Map



Source: Thienes Engineering, Inc. (03-20-08)

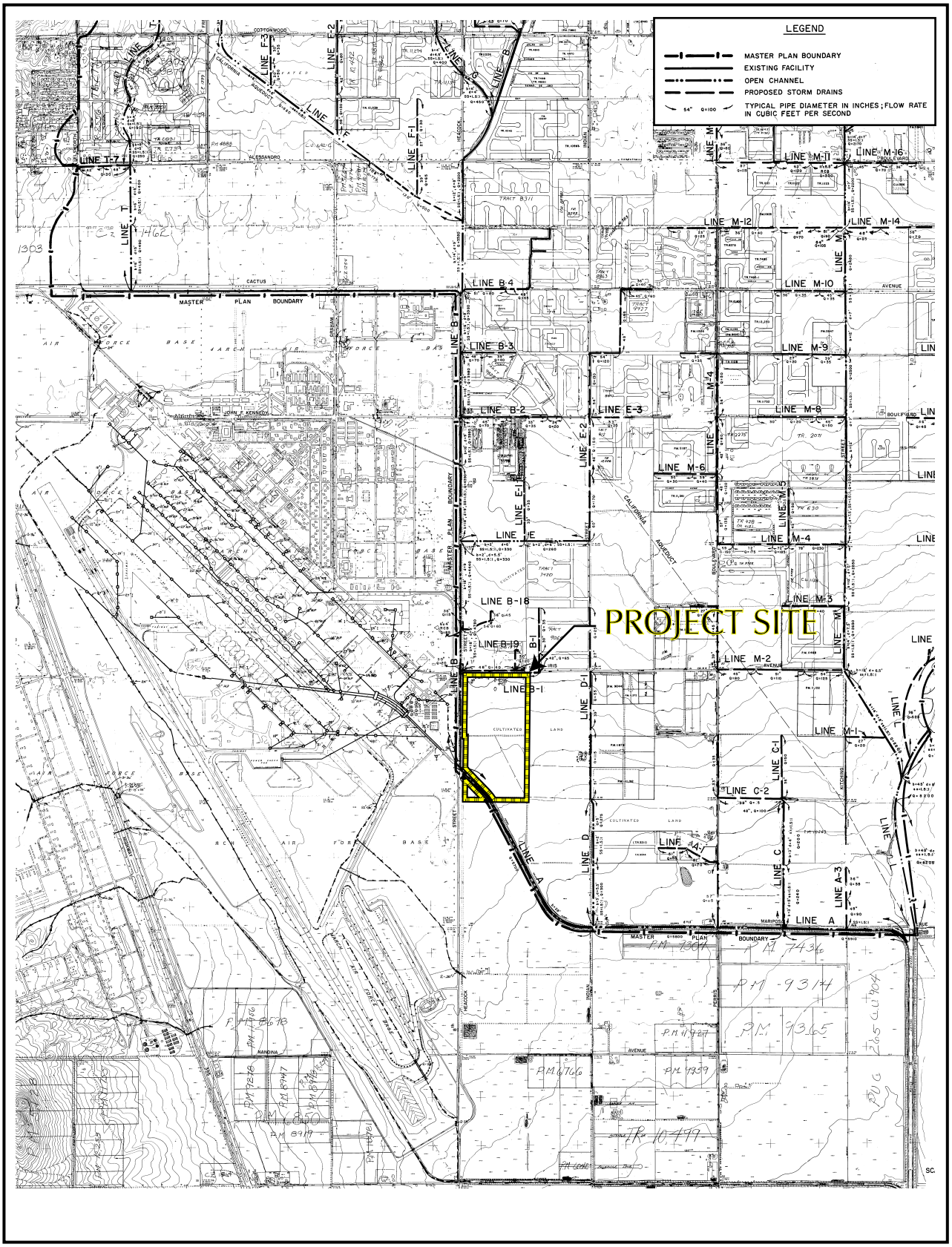
FIGURE 4.8-2
Existing Conditions Hydrology Map



Source: Riverside County Flood Control

Not to Scale

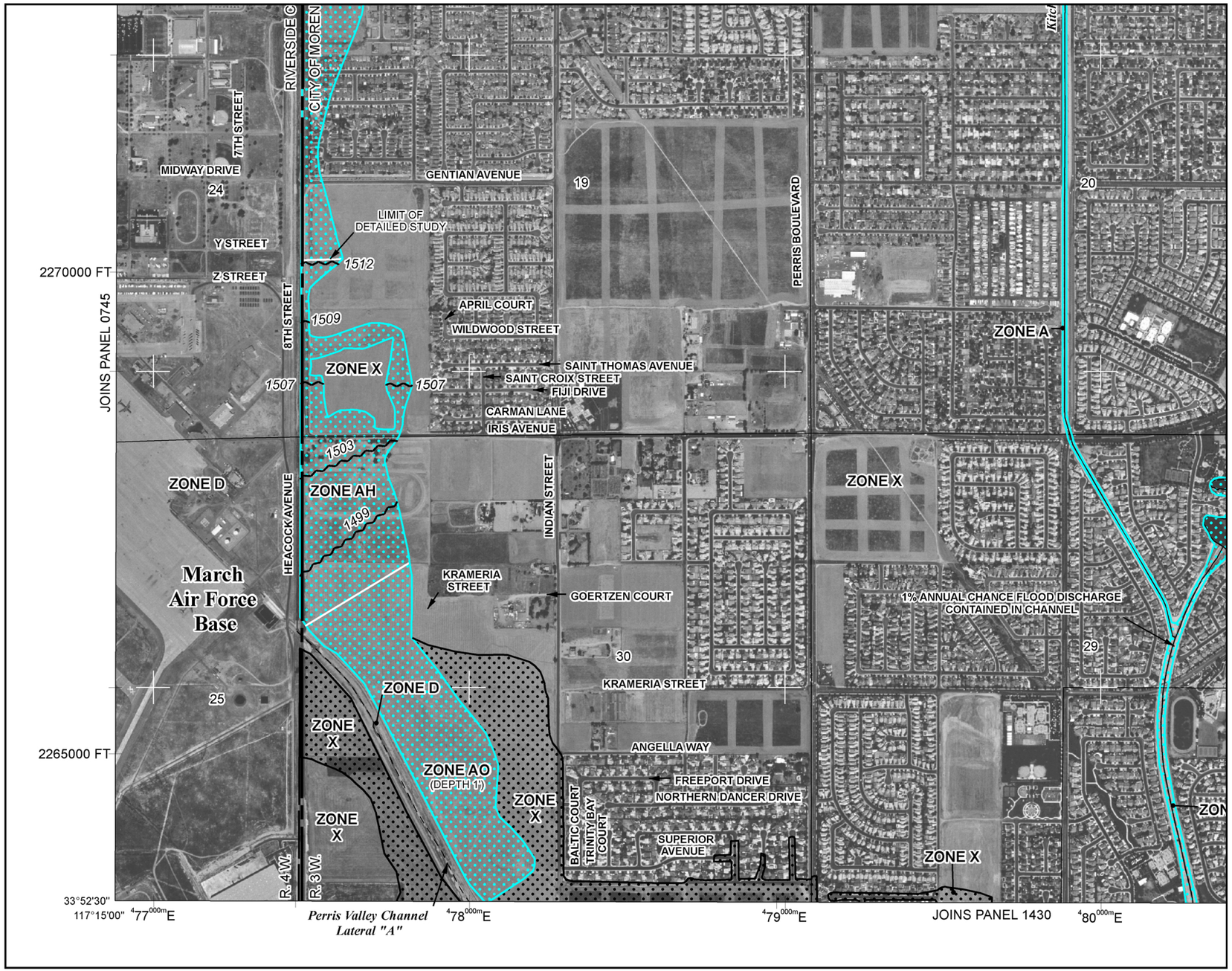
FIGURE 4.8-3
Perris Valley Master Drainage Plan



Source: Riverside County Flood Control

Not to Scale

FIGURE 4.8-4
Sunnymead Master Drainage Plan



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0765G

FIRM

FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 765 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MORENO VALLEY, CITY OF	065074	0765	G
RIVERSIDE COUNTY	060245	0765	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C0765G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Source: FEMA (2008)

Not to Scale

FIGURE 4.8-5
FEMA Flood Insurance Rate Map

The City of Moreno Valley General Plan Figure 6-4, *Flood Hazards*, depicts areas subject to flood hazards or dam inundation. Information depicted on General Plan Figure 6-4 reflects the same information identified on the FEMA FIRM map for the area. General Plan Figure 6-4 also shows that the proposed Project area is not subject to hazards associated with dam inundation. The nearest area to the Project site subject to dam inundation hazards occurs south of Oleander Avenue and along portions of Evans Road located northerly of Oleander Avenue.

E. Water Quality

The California Porter-Cologne Water Quality Control Act (Section 13000 ("Water Quality") et seq., of the California Water Code), and the Federal Water Pollution Control Act Amendment of 1972 (also referred to as the Clean Water Act (CWA)) require that comprehensive water quality control plans be developed for all waters within the State of California. In order to accomplish this, the California State Water Resources Control Board divided the state into planning regions and the present system of nine RWQCBs. The Project site and vicinity are located in the San Jacinto River sub-watershed, which is within the purview of the Santa Ana RWQCB. The Santa Ana RWQCB covers the upper and lower Santa Ana River watersheds, the San Jacinto River watershed, and several other small drainage areas. The Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Plan (as amended in 2004 and updated in February 2008 to incorporate an updated total dissolved solids (TDS) and Nitrogen Management Plan) is the governing water quality plan for the region, which sets forth goals and objectives for protecting water quality within the region (Santa Ana RWQCB 2008).

The Santa Ana Basin is a group of connected inland subbasins and open coastal basins that are drained by surface streams flowing generally southwestward to the Pacific Ocean. The United States Geological Survey (USGS) has determined that the quality of surface and groundwater in the Santa Ana Basin becomes progressively poorer as water moves along the hydraulic flow-paths toward the Pacific Ocean. The highest water quality is typically found in tributaries flowing from surrounding mountains and groundwater recharged by these streams (USGS, n.d.).

The San Jacinto River sub-watershed, in which the Project site is located, encompasses an area of over 750 square miles. Runoff from the Project site under existing conditions sheet-flows generally towards the south and southeast and then to the Perris Valley Storm Drain Channel that discharges into the San Jacinto River, located approximately 7.6 miles south of the site. The San Jacinto River flows into Canyon Lake and Lake Elsinore, approximately 12.5 and 15.25 miles southwest of the Project site, respectively. Lake Elsinore has virtually no overflow, but on rare occasions during large storm events, the lake will overflow to Temescal Creek, which flows to the Santa Ana River (San Jacinto River Watershed Council 2007).

The CWA requires all states to conduct water quality assessments of their water resources to identify water bodies that do not meet water quality standards. The Santa Ana River Basin Water Quality Control Plan (Santa Ana RWQCB 2008) reports that the most serious problem in the Santa Ana River Basin is the buildup of dissolved minerals, or salts, in the ground and surface waters. Sampling and computer modeling of groundwater showed that the levels of dissolved minerals (also called total dissolved solids (TDS) were reported to exceed water quality objectives or were projected to do so in the future unless appropriate controls were implemented. Nitrogen levels in the Santa Ana River, largely in the form of nitrate, also were projected to exceed objectives. These high levels of TDS and nitrate adversely affect the beneficial uses of ground and surface waters (Santa Ana RWCQB, 2004 Watershed Management Initiative (WMI), Chapter 2).

Lake Elsinore and Canyon Lake, the terminal points for the San Jacinto River, are impaired waters located downstream from the Project site. The Santa Ana RWQCB placed Lake Elsinore and Canyon Lake on the 303(d) list of impaired waters in 1994. Canyon Lake is impaired due to nutrients and pathogens. Lake Elsinore has water quality impairments due to nutrients, organic enrichment, low dissolved oxygen, PCBs, sedimentation and siltation, and toxicity from unknown sources. The IRWMP prepared for the San Jacinto River Watershed (San Jacinto River Watershed Council 2007) reports that excess nutrients from development and agriculture in the watershed delivered to these lakes contributes to significant algae growth, which causes depletion of dissolved oxygen and results in occasional massive fish kills. The IRWMP (pages 33-46) lists several studies that have been performed to assess potential sources of nutrients and bacteria in the San Jacinto watershed, changes in water quality over time, and the impact of various best management practices (BMPs) to reduce pollutant loading or improve lake water quality, and summarizes historic trends of pollutant levels based on those studies. Refer to the IRWMP (San Jacinto River Watershed Council 2007 33-46) (incorporated herein by reference and available at the website address given in Section 7.0, References), for detailed water quality information.

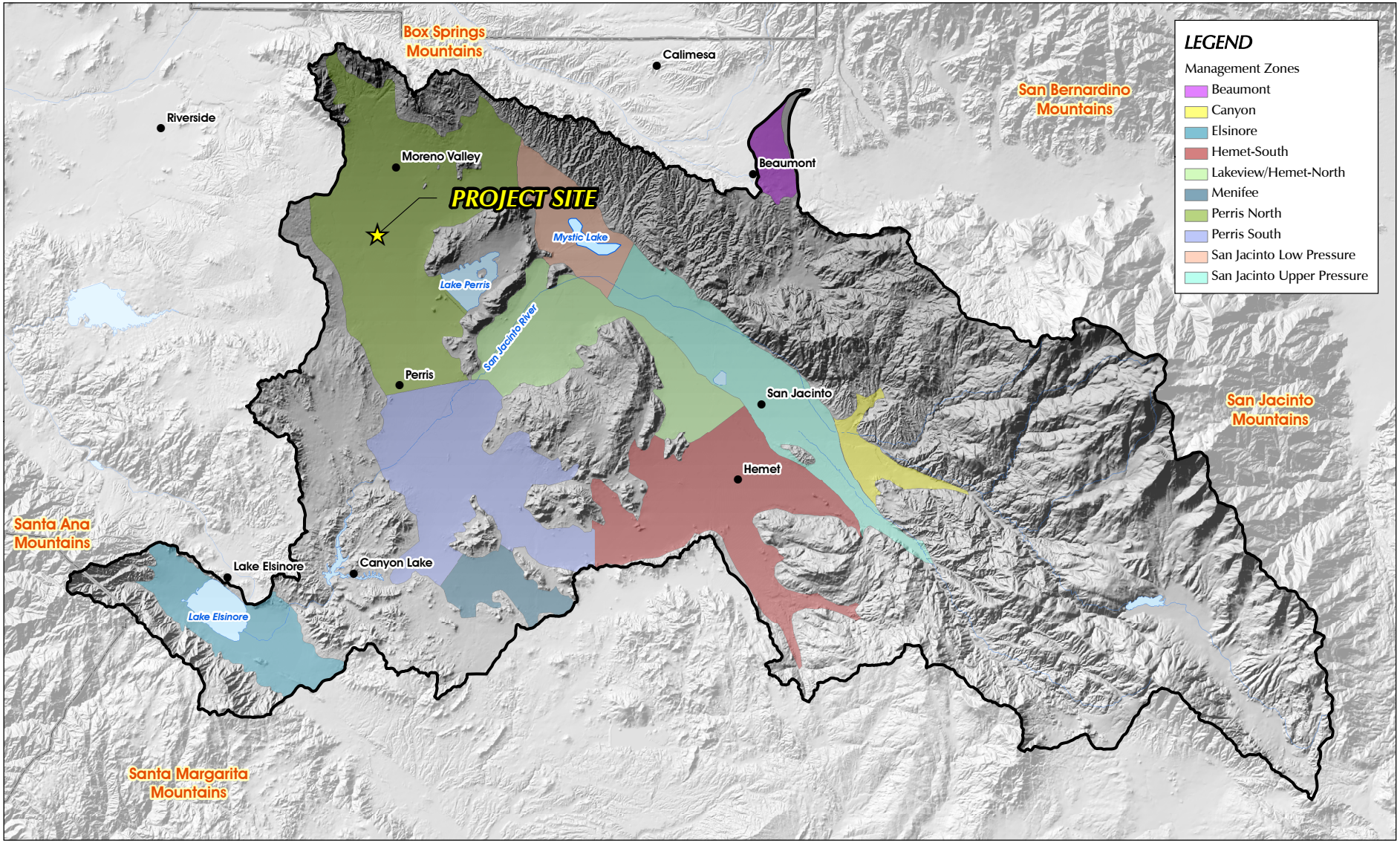
F. Groundwater

In the San Jacinto Watershed, all of the streams and rivers are ephemeral, meaning that surface water flows in them only during and immediately after a rainfall event. Generally, the majority of the area's rainfall is absorbed into the ground. When there is heavy rainfall and the ground becomes too saturated, then the water begins to flow into the streams and rivers.

The San Jacinto River Watershed area has a substantial amount of groundwater in storage, estimated by the IRWMP to be 1.45 million acre-feet (AF) (San Jacinto River Watershed Council 2007 47). The IRWMP reports that historical groundwater levels in individual wells show a complex system with conditions that vary across the area. Water levels in some wells have historically dropped, while others are rising. These conditions are a result of local historical groundwater production and recharge near water wells. Changing water levels affect the amount of groundwater in storage and can change the direction of groundwater flow, potentially to the detriment of groundwater quality (San Jacinto River Watershed Council 2007 47-54).

The Project site lies within the Perris North Groundwater Management Zone, as shown in Figure 4.8-6. Groundwater quality in the Perris North Groundwater Management Zone is monitored by Eastern Municipal Water District (EMWD). EMWD monitors ground water quality because it draws brackish (high TDS) water from wells and operates desalination facilities that remove salts. Demineralized groundwater produced from the desalination facilities contributes to EMWD's potable water supply system. The operation of these groundwater desalters to extract and treat groundwater is an important component of the salt management system in the groundwater basin (EMWD 2010).

During EMWD's 2008-09 annual groundwater quality monitoring effort, a total of 43 water quality samples were collected from wells in the Perris North Groundwater Management Zone (EMWD 2010). Table 4.8-1 depicts a marginal decrease in the high and low TDS levels from 2008 to 2009.



Source: SAWPA, RCTLMA (2011)

Figure 4.8-6
San Jacinto Watershed - Groundwater Management Zones

Table 4.8-1 Total Dissolved Solids and NO_3-N Levels for Perris North Management Zone

MANAGEMENT ZONE	YEAR	NO. OF SAMPLES	TDS (MG/L)		NO3-N (MG/L)	
			HIGH	LOW	HIGH	LOW
Perris North	2008	20	1,860	220	16.0	ND
	2009	23	1,740	251	24.0	ND

TDS = Total Dissolved Solids in mg/L (milligrams per liter).
NO_3-N = Nitrogen oxide levels in mg/L.
Source: EMWD 22010. West San Jacinto Groundwater Basin Management Plan 2009 Annual Report, Table 2. November 2010.

No potable water wells are located on or adjacent to the Project site under existing conditions. However, the Project site does contain several groundwater monitoring wells. These groundwater monitoring wells were constructed on site to monitor groundwater contamination associated with the March Air Reserve Base (ARB). Groundwater beneath the site is thought to be affected by plumes of polluted groundwater from the March ARB, although there is no evidence that any activities on the Project site may have contributed to this contamination (SCS Engineers 2006). According to EMWD's West San Jacinto Groundwater Basin Management Plan 2009 Annual Report, groundwater elevations beneath the Project site occur at an elevation of approximately 1,460 feet AMSL, indicating that groundwater beneath the site occurs approximately 44 feet below the ground surface during the spring. Refer to EIR Subsection 4.9, Hazards and Hazardous Materials, for additional information about the groundwater monitoring wells located on the property.

G. Applicable Policies and Regulations

Within California, three agencies (the U.S. Army Corps of Engineers (ACOE), the California Department of Fish and Game (CDFG), and the Regional Water Quality Control Board (RWQCB)) regulate activities within inland streams, wetlands, and riparian areas. Any development proposal that involves impacts to drainage courses, streams, or wetlands through filling, stockpiling, conversion to a storm drain, channelization, bank stabilization, road or utility crossing, or any other modifications to water resources, would require permits from the ACOE, CDFG, and/or the Santa Ana RWQCB. Additionally, the County of Riverside Department of Environmental Health (DEH) and the Santa Ana RWQCB regulate the use of groundwater.

❑ Federal Policies and Regulations

The Federal Water Pollution Control Act (also known as the Clean Water Act (CWA)) is the principal federal statute that addresses water resources. The statute employs a variety of regulatory and non-regulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. The broad goal is to restore and maintain the chemical, physical, and biological integrity of the nation's waters so that they can support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water."

The CWA requires all states to conduct water quality assessments of their water resources and identify water bodies that do not meet water quality standards. The Environmental Protection Agency (EPA) publishes recommended water quality criteria. States are not required to adopt the exact criteria, but state standards must be approved by the EPA and provide the same level of protection as EPA's standards. In California, water quality standards are established by the nine RWQCBs. The Project site is located in the Santa Ana region, and the Santa Ana RWQCB's Santa

Ana River Basin Water Quality Control Plan (Santa Ana RWQCB 2008) is applicable to the Project site and vicinity.

The provision of the CWA applicable to the proposed Project is as follows, which applies to all construction sites of over one acre in size:

- CWA Section 401 (requires federal agencies to obtain a Water Quality Certification from states, territories, and Indian tribes before issuing permits that would result in increased pollutant loads to a water body. A Section 401 certification can be issued only if increased pollutant loads would not cause or contribute to exceedances of water quality standards).
- CWA Section 402 (authorizes the National Pollutant Discharge Elimination System (NPDES) permit program that covers point sources of pollution discharging to a water body. The NPDES program also requires operators of construction sites one acre or larger to prepare a Stormwater Pollution Prevention Plan (SWPPP) and obtain authorization to discharge stormwater under an NPDES construction stormwater permit).
- CWA Section 404 (administered by the U.S. ACOE and regulates the placement of dredged or fill materials into wetlands and other Waters of the United States); and

❑ State Policies and Regulations

The California Water Code (including the Porter-Cologne Water Quality Control Act (Division 7)) is the principal state law regulating water quality in California. The Porter-Cologne Water Quality Control Act establishes a comprehensive program to protect water quality and the beneficial uses of water, and applies to both surface and groundwater. The State Water Resources Control Board adopts statewide water quality control plans and its nine RWQCBs are required to develop and adopt regional water quality control plans ("basin plans") that conform to state water quality policy. As mentioned above, the Project site is located in the Santa Ana region. The Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Plan (Santa Ana RWQCB 2008) is applicable to the Project site; it designates beneficial uses of water bodies to be protected and establishes water quality objectives.

In summary, the California Water Code contains provisions that regulate water and its use. Division 7 covers water quality protection and management. The Health and Safety Code provides for protection of ground and surface waters from hazardous waste and other toxic substances. The Harbors and Navigation Code provides regulations designed to prevent the unauthorized discharge of waste from vessels into surface waters. The Fish and Game Code has provisions to prevent unauthorized diversions of any surface water and discharge of any substance that may be deleterious to fish, plant, animal, or bird life. The Food and Agriculture Code provides for the protection of groundwater which may be used for drinking water supplies.

4.8.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to hydrology and water quality if the Project or any Project-related component would:

1. *Violate any water quality standards or waste discharge requirements;*
2. *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a*

level which would not support existing land uses or planned uses for which permits have been granted);

3. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site;*

4. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate of surface runoff in a manner which would result in flooding on- or off site;*

5. *Create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;*

6. *Otherwise substantially degrade water quality;*

7. *Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;*

8. *Place within a 100-year flood hazard area structures which would impede or redirect flood flows;*

9. *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or*

10. *Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow.*

4.8.3 IMPACT ANALYSIS

Threshold 1: Would the Project violate any water quality standards or waste discharge requirements?

Water bodies that do not meet water quality standards are placed on a list of impaired waters pursuant to the requirements of Section 303(d) of the CWA. The Project's stormwater would flow via the Perris Valley Channel to Reach 3 of the San Jacinto River, which in turn discharges into Canyon Lake (also known as Reach 2 of the San Jacinto River). From Canyon Lake, flows are conveyed via Reach 1 of the San Jacinto River where it discharges into Lake Elsinore. As indicated in Section II of *Technical Appendix H2*, Reaches 1 and 3 of the San Jacinto River are not an impaired water body on the RWQCB's Section 303(d) list. However, Canyon Lake (Reach 2 of the San Jacinto River) and Lake Elsinore are identified as impaired waters on the Section 303(d) list. Canyon Lake is impaired due to nutrients and pathogens. Lake Elsinore has water quality impairments due to nutrients, organic enrichment/low dissolved oxygen, PCBs, sedimentation and siltation, and toxicity from unknown sources.

The Project's Water Quality Management Plan (WQMP) contained as *Technical Appendix H2* has been prepared in accordance with City requirements to identify pollutants of concern and identify means to reduce their discharge into urban runoff. The following pollutants carried by water leaving the Project site have the potential to be discharged in the site's urban runoff and be carried to the San

Jacinto River, Canyon Lake, and Lake Elsinore. Pollutants could contribute to impairments of Canyon Lake and Lake Elsinore and place the San Jacinto River at greater risk of becoming impaired:

- Nutrients: Primary sources of nutrients in runoff are fertilizers and eroded soils (sediment). Landscaped areas would be added on the site that would need to be maintained and fertilized, thereby increasing the potential for nutrient increases in runoff. Water quality filtration that would occur in the four detention/infiltration basins on site would assist in fertilizer removal. The detention/infiltration basins would include extended/dry detention basins with grass lining and extended/dry detention basins with impervious lining. These detention/infiltration basins would be subject to routine maintenance required by the Riverside County Flood Control and Water Conservation District to ensure on-going effectiveness of the treatment. Additionally, the WQMP (refer to *Technical Appendix H2*) also incorporates Source Control BMPs, which are intended to help reduce the amount of runoff from landscaped areas that could contribute nutrients to receiving waters. Such BMPs require the use of reducers or shutoff valves for irrigation equipment to reduce the potential for excessive runoff due to broken sprinkler heads, and also requires the use of timers to avoid over watering that could result in nutrient-loaded runoff. With mandatory adherence to the source and treatment control BMPs specified in the Project's WQMP, impacts associated with fertilizer use in landscaped areas would be below a level of significance and no mitigation would be required.

  With buildout of the Project, the amount of bare soil exposed to runoff would be substantially reduced as compared to existing conditions. Specifically, according to the Project's proposed Plot Plans, approximately 89.5% (rounded to nearest half-percent) of the site would comprise impervious surface areas at buildout, with the remaining 10.5% composed of landscaped areas. There would be no area of bare soil; thus, development of the site as proposed by the Project would result in a substantial reduction in the amount of sedimentation in runoff from the site as compared to existing conditions. Temporary increases of sediment volume in runoff could occur during the Project's grading and construction when bare soils are exposed. However, in accordance with the mandatory requirements of CWA Section 402, Project grading and construction activities are required to obtain coverage under the General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ). This permit requires the development and implementation of a Stormwater Pollution Prevention Program (SWPPP), which must list BMPs to control sediment during construction; therefore, due to mandatory compliance with Construction General Permit Order 2009-0009-DWQ, sedimentation/ nutrient impacts during construction would be less than significant, and no mitigation would be required beyond what is already identified in the Project-specific WQMP.

- Pathogens: Pathogens (bacteria and viruses) are proliferated by the transport of animal or human fecal wastes into water bodies. There are no substantial sources of pathogens on site under existing conditions, and no substantial sources of pathogens would be introduced with buildout of the proposed Project. The proposed Project would not increase the potential for untreated human fecal waste to reach water bodies, as the Project would include the construction of a sanitary sewer system that would convey Project wastewater to EMWD facilities for treatment and disposal. The Project is proposed as a business park/light industrial development; it is therefore assumed that domestic pets or animals would not frequently visit the site. It is also assumed that pet owners would collect and properly

dispose of pet fecal matter, should pets be present on the property. Moreover, any fecal matter deposited in outdoor areas of the Project site and picked up in surface water would be subject to treatment by the on-site infiltration/detention basins, which would serve to reduce the amount of pathogens present in Project runoff. Because fecal wastes would not be a frequent occurrence on the Project site and/or would otherwise be treated by the on-site infiltration/detention basins, impacts associated with pathogens would be less than significant and no mitigation would be required.

- Organic Enrichment/Low Dissolved Oxygen: Dissolved oxygen is the amount of oxygen dissolved in water. When nutrient loads in a body of water increase, it can result in increased biological activity (e.g., algal blooms) which in turn can deplete water of oxygen. This process also could occur as a result in increased water temperature. As discussed under the analysis of impacts due to nutrients, above, human and pet wastes are not anticipated in Project runoff, and any nutrients in Project runoff would otherwise be treated by the on-site infiltration/detention basins. Additionally, there is no component of the proposed Project that would result in an increase in temperature in any receiving water. Accordingly, impacts associated with organic enrichment/low dissolved oxygen are evaluated as less than significant, and no mitigation would be required.

- Organic Compounds: PCBs (polychlorinated biphenyls) are a class of organic compounds generated by industrial activity. PCB production has been banned since the 1970s; therefore, the proposed Project would not generate PCBs.

- Sediment and Siltation: As noted above under the discussion of nutrients, buildout of the proposed Project would result in a substantial decrease in the amount of exposed soils as compared to existing conditions, which would result in a substantial decrease in the amount of sediment and siltation in Project runoff. Sedimentation in Project runoff would further be treated by the Project's infiltration/detention basins. During construction, mandatory compliance with General Permit Order 2009-0009-DWQ would ensure that sedimentation/siltation in runoff is reduced to less than significant levels. Therefore, with compliance with the WQMP and a SWPPP required by General Permit Order 2009-0009-DWQ, Project impacts associated with sediment/siltation in runoff would not be significant, and no mitigation would be required.

Based on the analysis presented above, mandatory compliance with the Project's WQMP, in addition to compliance with Construction General Permit Order 2009-0009-DWQ, would ensure that all potential pollutants of concern are minimized or otherwise appropriately treated prior to being discharged into receiving waters. Therefore, implementation of the proposed Project would not violate any water quality standards or waste discharge requirements, and impacts would therefore be less than significant. No mitigation would be required.

Threshold 2: ***Would the Project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?***

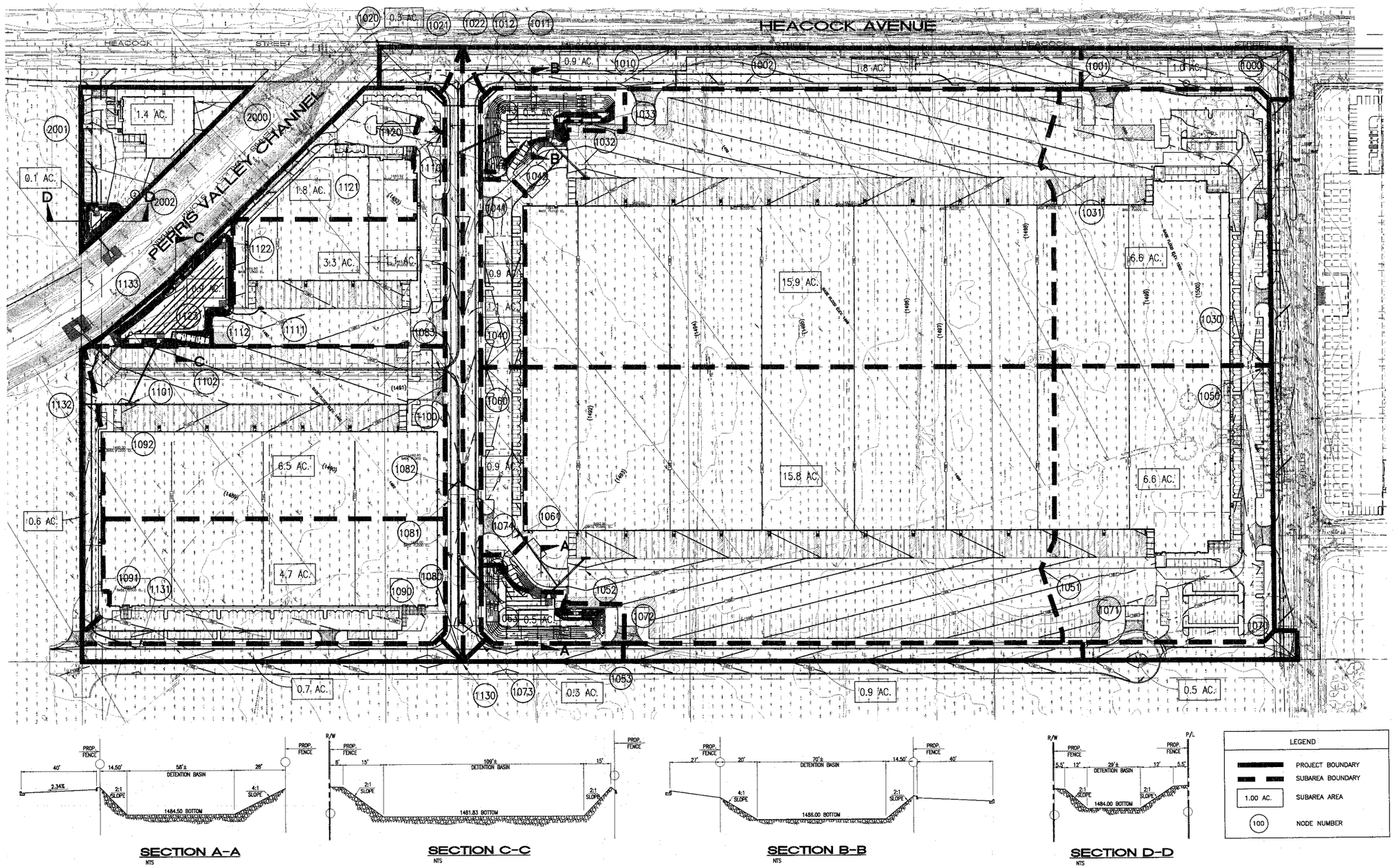
The proposed Project would be served with potable water by the EMWD, and no potable groundwater wells are proposed as part of the Project. The EMWD has indicated its ability to serve the proposed Project in light of past, present, and future commitments (*Technical Appendices K1 and K2*). Therefore, implementation of the proposed Project would not deplete groundwater supplies, and a significant impact would not occur.

Development of Project would increase impervious surface coverage on the site, which would in turn reduce the amount of infiltration of runoff into groundwater basins. However, and as noted in the City's General Plan EIR (Page 5.7-12), "the impact of an incremental reduction in groundwater would not be significant as domestic water supplies are not reliant on groundwater as a primary source." In addition, groundwater beneath the Project site is thought to be contaminated by the March ARB (refer to Subsection 4.9, Hazards and Hazardous Materials), and therefore does not serve as a source of potable water under existing conditions. Furthermore, the Project incorporates four infiltration/detention basins, which would allow some runoff from the Project site to infiltrate into the groundwater basin beneath the site. With buildout of the Project, it is not anticipated that the local groundwater levels would be affected. Therefore, impacts to groundwater supplies and recharge would not be significant, and mitigation would not be required.

Threshold 3: ***Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site?***

Figure 4.8-2 depicts the hydrologic characteristics of the proposed Project site under existing conditions. As shown, under existing conditions the drainage from the northern portions of the site are conveyed in a generally north-south alignment, and this runoff discharges along the southern Project boundary in the eastern portion of the site. Runoff in the southwestern corner of the site (i.e., southwest of the Perris Valley Storm Drain Channel) is in a generally northwest to southeast orientation, and discharges in the southeastern corner of proposed Parcel 4. All site runoff is conveyed to the Perris Valley Channel under existing conditions.

With buildout of the proposed Project, the site's hydrological characteristics would change, as depicted on Figure 4.8-7, *Proposed Conditions Hydrology Map*. A total of four infiltration/detention basins would be constructed on the site, with two basins located northerly of proposed Krameria Avenue, one basin along the southeastern corner of Parcel 3, and one smaller basin at the southeastern corner of Parcel 4. Flows from the infiltration/detention basins all would be conveyed via the site's proposed storm drain system and would discharge directly into the Perris Valley Storm Channel. Outlets into the Perris Valley Channel would be constructed with rip rap to control the velocity of flows. (Refer to Subsection 4.4 of this EIR, Biological Resources, for an analysis of potential impacts to the Channel).



Source: Thienes Engineering, Inc. (03-20-08)

Not to Scale

FIGURE 4.8-7
Proposed Conditions Hydrology Map

Thus, with buildout of the proposed Project, runoff from the Project site would continue to be conveyed to the Perris Valley Storm Drain Channel, and the site's general drainage pattern would be maintained. Additionally, all site runoff would be treated by the four on-site infiltration/detention basins, which have a "high/medium" effectiveness for treating sediment/turbidity and nutrients. Moreover, the Project proposed drainage plan would have no effect on the course of any streams or rivers. Therefore, with buildout of the proposed Project site, there would be no significant alteration of the site's existing drainage pattern and there would not be any significant increases in the rates of erosion or siltation on or off site. No mitigation would be required.

Threshold 4:	***Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate of surface runoff in a manner which would result in flooding on or off site?***

As discussed above under the analysis of Threshold 3, and as shown on Figure 4.8-2 and Figure 4.8-7, the Project's proposed drainage plan would generally maintain the site's existing drainage pattern. Implementation of the proposed Project also would not result in changes to the course of any streams or rivers.

Table 4.8-2 and Table 4.8-3 present the results of the hydrologic analyses that were completed for the proposed Project site (refer to *Technical Appendix H1* for more detail). Both rational method and flood hydrograph analyses were completed for the 100-year storm conditions, for both existing and proposed conditions. The results indicate that approximately 6.86 acre-feet of storage would be required in the three infiltration/detention basins located in the north portion of the site and approximately 0.17 acre-feet of storage would be required in the infiltration/detention basin within Parcel 4.

As detailed in *Technical Appendix H1*, by allowing one-foot for freeboard, the proposed Project's Conceptual Grading Plan accommodates infiltration/detention basins with a capacity of 1.53 acre feet, 2.22 acre feet, and 3.04 acre feet, for a total of 6.79 acre-feet, in the north portion of the site, while the infiltration/detention basin in Parcel 4 has been designed to accommodate 0.20 acre-feet of storage. Final designs for grading would be identified as part of future implementing projects, and would be accompanied by detailed technical analysis of the ultimate storage requirement to be accommodated by the infiltration/detention basins. Therefore, with buildout of the proposed Project the rate and volume of runoff from the Project site would be very similar to the rates and volumes that occur under existing conditions. As a result, implementation of the proposed Project would not result in an increase in potential for flooding of off-site properties.

Table 4.8-2 Pre- and Post-Development Conditions Hydrologic Summary – Parcels 1 through 3

Rational Method													
		Existing - Node 103				Proposed - Node 1132				Difference (Increase)			
Peak Flow	(cfs)	78.86				144.94				66.08			
Flood Hydrograph													
		Existing - Node 103 +				Proposed - Nodes 1043, 1063, & 1123				Difference (Increase)			
		100-year	10-year	5-year	2-year	100-year	10-year	5-year	2-year	100-year	10-year	5-year	2-year
Peak Flow	(cfs)	270.93	165.81	124.60	85.73	274.28	174.91	143.67	104.78	3.35	9.10	19.07	19.05	1-hour
Peak Flow	(cfs)	117.78	68.28	43.81	27.07	121.03	77.33	62.83	46.08	3.25	9.05	19.02	19.01	3-hour
Peak Flow	(cfs)	105.27	58.65	35.06	19.47	108.52	67.70	54.06	38.48	3.25	9.05	19.00	19.01	6-hour
Peak Flow	(cfs)	31.07	12.01	1.94	1.44	33.85	19.76	14.36	9.31	2.78	7.75	12.42	7.87	24-hour
Total Runoff	(ac-ft)	6.08	3.15	1.55	0.92	6.36	3.90	3.05	2.14	0.28	0.75	1.50	1.22	1-hour
Total Runoff	(ac-ft)	8.96	3.68	1.46	0.88	9.76	5.82	4.33	2.96	0.80	2.14	2.87	2.08	3-hour
Total Runoff	(ac-ft)	10.85	3.56	1.35	0.77	12.44	6.84	4.73	3.68	1.59	3.28	3.38	2.91	6-hour
Total Runoff	(ac-ft)	12.91	2.91	1.18	0.87	17.45	9.77	7.16	5.01	4.54	6.86	5.98	4.14	24-hour

Source: Thienes Engineering, Technical Appendix H1.

Table 4.8-3 Pre- and Post-Development Conditions Hydrologic Summary – Parcel 4

Rational Method													
		Existing - Node 201				Proposed - Node 2002				Difference (Increase)			
Peak Flow	(cfs)	2.35				4.44				2.09			
Flood Hydrograph													
		Existing - Node 201				Proposed - Node 2002				Difference (Increase)			
		100-year	10-year	5-year	2-year	100-year	10-year	5-year	2-year	100-year	10-year	5-year	2-year
Peak Flow	(cfs)	6.21	3.80	2.86	1.96	6.28	4.04	3.37	2.48	0.07	0.24	0.51	0.52	1-hour
Peak Flow	(cfs)	2.70	1.56	1.00	0.62	2.77	1.81	1.52	1.13	0.07	0.25	0.52	0.51	3-hour
Peak Flow	(cfs)	2.41	1.34	0.80	0.45	2.49	1.59	1.32	0.96	0.08	0.25	0.52	0.51	6-hour
Peak Flow	(cfs)	0.71	0.28	0.04	0.03	0.78	0.48	0.40	0.28	0.07	0.20	0.36	0.25	24-hour
Total Runoff	(ac-ft)	0.14	0.07	0.04	0.02	0.15	0.09	0.08	0.06	0.01	0.02	0.04	0.04	1-hour
Total Runoff	(ac-ft)	0.21	0.08	0.03	0.02	0.22	0.14	0.12	0.09	0.01	0.06	0.09	0.07	3-hour
Total Runoff	(ac-ft)	0.25	0.08	0.03	0.02	0.28	0.17	0.14	0.10	0.03	0.09	0.11	0.08	6-hour
Total Runoff	(ac-ft)	0.30	0.07	0.03	0.02	0.40	0.24	0.19	0.14	0.10	0.17	0.16	0.12	24-hour

Source: Thienes Engineering, Technical Appendix H1.

With respect to the potential for flooding on site, the proposed Project site is identified by FEMA as being located in an area subject to flooding (for the portion of the site located northerly of the Perris Valley Channel). Flood elevations identified by FEMA indicate the potential for flood depths ranging from 1 to 3 feet throughout the majority of proposed Parcels 1 through 3 during a 100-year storm event. However, the proposed Project site has been designed such that all building pads would be above the water surface elevation identified by FEMA. The Conceptual Grading Plan included as part of the Project's Tentative Parcel Map identifies all of the base flood elevations on site, and demonstrates in each case that the finished floor and pad elevation would be above the base flood elevations. Specifically, all buildings proposed on the site would be located approximately 1.1 to 2.0 feet above the water surface elevation. During final engineering, an updated HEC-RAS study (ACOE's Hydrologic Engineering Center's River Analysis System software) would be required to verify that all pad elevations are located at least one foot above flood water surface elevations (Weil 2012). Therefore, the design of the proposed Project would not result in an increase in the potential for flood hazards on site, and the Project has been designed such that no structure on site would be subject to flooding. Impacts due to increased flood hazards on site would therefore be less than significant.

Threshold 5: Would the Project create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

As discussed under the analysis of Threshold 4, the proposed Project has been designed so as to ensure that post-development runoff rates and volumes closely resemble those that occur under existing conditions. In addition, runoff from the Project site under existing conditions is conveyed to the Perris Valley Storm Drain Channel, which has sufficient capacity to handle runoff generated by the proposed Project site (assuming development of the Project's proposed infiltration/detention basins that are designed to reduce the rate and volume of runoff from the site). Because the Perris Valley Storm Drain Channel has sufficient capacity to convey runoff from the Project site under existing conditions, and since the rate and volume of runoff would not substantially increase with buildout of the proposed Project, the Project would not create or contribute runoff which would exceed the capacity of any existing or planned stormwater drainage system.

As discussed under the analysis of Threshold 1, the proposed Project would be required to comply with the Project's WQMP (*Technical Appendix H2*), which identifies BMPs to be incorporated into the Project to ensure that long-term operation of the proposed Project does not result in substantial amounts of polluted runoff. As indicated under Threshold 1, the proposed BMPs have been identified to address pollutants of concern within receiving waters (including Canyon Lake and Lake Elsinore, both of which are identified as impaired waters). During construction, the Project also would be required to comply with Construction General Permit Order 2009-0009-DWQ, which would reduce sedimentation in runoff during grading and construction of the proposed Project. Therefore, with mandatory compliance with the Project's BMPs and Construction General Permit Order 2009-0009-DWQ, the proposed Project would not create or contribute substantial additional sources of polluted runoff, and impacts would be less than significant. No mitigation is required.

Threshold 6: Would the Project otherwise substantially degrade water quality?

As discussed in detail under the analysis of Threshold 1, mandatory compliance with the Project's BMPs and Construction General Permit Order 2009-0009-DWQ would reduce to a level below significant the Project's potential to generate substantial amounts of polluted runoff, including runoff containing pollutants of concern for downstream impaired waters. Other than runoff from the site, there are no other known sources of pollutants that could impact or degrade water quality. Accordingly, a significant impact would not occur and mitigation is not required.

Threshold 7: Would the Project place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The proposed Project consists of a proposed business park/light industrial facility. Residential uses are not proposed as part of the Project. The proposed Project also would not result in an increase in the potential for off-site flooding (as discussed under Threshold 4). Accordingly, the proposed Project would not place housing, either on or off site, within a 100-year floodplain, and a significant impact would not occur.

Threshold 8: Would the Project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Under existing conditions, the majority of the site located northerly of the Perris Valley Storm Drain Channel occurs within a FEMA designated Special Flood Hazard Zone. Flood Zones identified on site (Zones AH and AO) indicate that the majority of the northern portion of the Project site is subject to flood depths of 1 to 3 feet (usually areas of ponding or sheet flow on sloping terrain). The proposed Conceptual Grading Plan included as part of the Project's Tentative Parcel Map has been designed such that all three of the proposed buildings northerly of the Perris Valley Channel would be constructed at an elevation that is higher than the base flood elevation. Thus, as a result of the proposed Project, some flood flows would be redirected around the proposed structures and would be concentrated within other portions of the Project site, particularly within proposed parking areas. However, the Project's Conceptual Grading Plan also has been designed such that elevations within the areas proposed for parking would be lower than occurs under existing conditions, thereby accommodating flood flows on site. As a result, the Project would not result in increased flood hazards to off-site properties. Although the Project would result in the redirection of flood flows on site (i.e., away from proposed structures), this proposed redirection of flows would not result in a significant adverse impact to the environment. No mitigation would be required.

Threshold 9: Would the Project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

As discussed under Thresholds 4 and 8, the proposed Project has been designed such that on-site structures would not be subject to inundation by flood flows. Additionally, flood flows on site are estimated by FEMA to comprise only a depth of 1 to 3 feet, which would not pose a substantial safety risk to people on the Project site. The Moreno Valley General Plan Figure 6-4, Flood Hazards, depicts areas within the City that are subject to failure of a dam (i.e., the Perris Reservoir), and indicates that the proposed Project site and surrounding areas are not subject to dam inundation hazards (Moreno Valley 2006a). Accordingly, there would be no significant risk of loss, injury, or death associated with the failure of a dam. In addition, there are no levees within the Project vicinity, indicating there is no potential for risk of loss, injury, or death associated with failure of a levee. The proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

Threshold 10: Would the Project expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?

The proposed Project site is located approximately 40 miles from the nearest portion of the Pacific Ocean, which is the only body of water within the region capable of producing tsunamis. Additionally, the site is separated from the Pacific Ocean by the Santa Ana Mountains. Accordingly, there is no potential for the site to be affected by a tsunami, and no impact would occur.

Seiches are a temporary disturbance or oscillation in the water level of a body of water (e.g., lake), which can result in inundation of lands surrounding the body of water. Seiches with the potential for inundating surrounding lands with flood waters are most frequently caused by seismic activity. The

proposed Project site is not located in close proximity to any bodies of water capable of producing a seiche. The nearest body of water is the Perris Reservoir, located approximately 3.0 miles southeast of the proposed Project site.

Lands surrounding the proposed Project site are generally characterized as flat, and there are no prominent topographic landforms within the Project vicinity. According to the Project's geotechnical report (*Technical Appendix E*) slope stability in the Project area is not a concern. Accordingly, the proposed Project site is not subject to any mudflow hazards.

In conclusion, the proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow. There is no potential for those impacts to occur and mitigation is not required.

4.8.4 CUMULATIVE IMPACT ANALYSIS

❑ Water Quality (Thresholds 1 and 6)

The Project site is located in the San Jacinto River sub-watershed, which includes two bodies of water that are listed on the CWA Section 303(d) list: Lake Elsinore and Canyon Lake. During construction of the Project or any other developments within the cumulative study area, there is a potential for short-term erosion and sedimentation impacts to receiving waters. However, pursuant to the NPDES permit for construction activities and requirements pursuant to Construction General Permit Order 2009-0009-DWQ, the Project and all cumulative developments would be required to prepare and implement site-specific SWPPPs that would identify potential on-site pollutants and identify and implement an effective combination of erosion control and sediment control measures to reduce or eliminate discharge of pollutants to surface water from stormwater and non-stormwater discharges. With compliance to these mandatory regulatory requirements, the Project's contribution to water quality impairments during Project construction would not be cumulatively considerable and no mitigation would be required.

As discussed in detail under the analysis of Threshold 1, a Project-specific WQMP has been prepared to identify pollutants of concern within the Project's watershed and to identify specific BMPs to address those pollutants. The Project's WQMP identifies the need for four (4) infiltration/detention basins on site, which, when combined with other site design features (e.g., providing for permeable areas for infiltration of site runoff), would ensure that runoff from the site does not contribute substantial amounts of pollutants of concern to receiving waters. Other developments within the watershed would similarly be required to prepare site-specific WQMPs and to incorporate BMPs into site design as necessary to ensure that runoff does not contribute to existing water quality violations. With implementation of the Project as designed, including four infiltration/detention basins, and mandatory compliance to the Project's WQMP (*Technical Appendix H2*), the Project's contribution to water quality degradation would not be cumulatively considerable and no mitigation would be required.

There are no other components of the proposed Project that have the potential to substantially degrade water quality; as such, the proposed Project would have no potential to cumulatively contribute to water quality impacts beyond what is discussed and evaluated above.

❑ Groundwater Quality and Recharge (Threshold 2)

As discussed under the analysis of Threshold 2, above, the proposed Project would be served with potable water by EMWD. The EMWD has indicated an ability to serve the proposed Project in light of its past, present, and anticipated future commitments (refer to *Technical Appendices K1 and K2*). Thus, the proposed Project would not deplete groundwater supplies, and would therefore have no potential to cumulatively contribute to adverse impacts associated with groundwater supplies.

Although the proposed Project would increase the amount of impervious surfaces on site, the Project incorporates four infiltration/detention basins that would allow some runoff from the site to infiltrate into the groundwater basin. Additionally, and as previously noted, the City's General Plan EIR (Moreno Valley 2006b) evaluated potential impacts to the groundwater basins beneath the City and concluded that, with buildout of the General Plan, the incremental reduction in groundwater would not be significant as domestic water supplies within the City are not reliant on groundwater as a primary source. Furthermore, groundwater beneath the proposed Project site is thought to be contaminated due to operations at the adjacent March ARB, indicating that groundwater beneath the proposed Project site is not suitable as a source of potable water (refer to Subsection 4.7, Hazards and Hazardous Materials).

Based on these factors, the proposed Project would not result in cumulatively considerable impacts associated with depletion of groundwater supplies or substantial interference with groundwater recharge.

❑ Erosion and Siltation (Threshold 3)

As discussed under the analysis of Threshold 3, the Project's proposed drainage plan would generally maintain the existing drainage patterns of the site, and all drainage would continue to discharge into the Perris Valley Storm Drain Channel as occurs under existing conditions. Additionally, all site runoff would be treated by the Project's four proposed on-site infiltration/detention basins, which as indicated in *Technical Appendix H2* have a "high/medium" effectiveness for treating sediment/turbidity and nutrients. The proposed Project also would have no effect on the course of any stream or river. Accordingly, due to the design of the proposed Project, there is no potential for the Project to make a cumulatively considerable impact associated with substantial alterations to the existing drainage pattern of the site or area which could result in substantial erosion or siltation on or off site.

❑ Flood Hazards (Thresholds 4, 7, 8, 9)

As discussed under the analysis of Threshold 4, the proposed Project would generally maintain the existing drainage pattern of the site. The proposed Project would not affect the course of any streams or rivers. In addition, the proposed Project's Conceptual Grading Plan calls for the installation of four infiltration/detention basins that have been designed to ensure that peak flood volumes and flows are substantially similar to those that occur under existing conditions. Accordingly, because the Project would not result in any potential for increase in flood potential either on or off site, the Project has no potential to contribute to a cumulatively considerable impact associated with flooding.

As discussed under Threshold 7, the Project does not involve the construction of residential uses, nor would the Project increase flood hazards on off-site properties such that residential structures could

be impacted by floods. Accordingly, the Project has no potential to contribute to the flooding of residential properties.

As more fully described under the analysis of Threshold 8, the proposed Project would place several buildings (i.e., Buildings 1, 2, and 3) within an identified flood hazard area. These structures have the potential to interfere with flood flows. However, as shown on the Conceptual Grading Plan, areas proposed for buildings would be increased in elevation to ensure buildings on site are not subject to flood hazards, while adjacent parking areas would be lowered in elevation both to facilitate site grading and to provide additional capacity on site for the redirected flood flows. As a result, the Project would not result in increased flood hazards to off-site properties. Since flood hazards in the surrounding areas would remain unchanged with Project implementation, the Project has no potential to make a cumulatively considerable contribution to flood hazard impacts.

As discussed under the analysis of Threshold 9, the Project site has no potential to be impacted by the failure of a levee or a dam; as such, the Project has no potential to make a cumulatively considerable impact that may be associated with such failures.

❑ Stormwater Drainage System Capacity (Threshold 5)

As discussed under the analysis of Threshold 5, the Project's drainage system has been designed to ensure that post-development runoff volumes and velocities closely resemble those that occur under existing conditions. All flows from the site would be discharged directly into the Perris Valley Storm Drain Channel, as occurs under existing conditions. The Channel has been designed to accommodate flows from the proposed Project site in addition to flows from other properties within the cumulative study area. Since the proposed Project would not substantially increase the amount or velocity of runoff entering the Perris Valley Channel as compared to existing conditions, the Project has no potential to contribute runoff to this facility that could result in an excedance of capacity. A cumulatively significant impact would therefore not occur.

❑ Other Hazards (Threshold 10)

As indicated under the analysis of Threshold 10, the proposed Project site is not subject to hazards associated with seiches, tsunamis, or mudflows. There are no components of the proposed Project that would increase the potential for seiches, tsunamis, or mudflows. Accordingly, the Project has no potential to make a cumulatively considerable contribution to these type of impacts.

4.8.5 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Compliance with these measures was assumed throughout the above analysis of impacts to hydrology and water quality.

PR 4.8-1 The Project is required to obtain coverage under the General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit, 99-08-DWQ). The Permit will require the preparation and implementation of a Stormwater Pollution Prevention Plan and implementation of Best Management Practices.

PR 4.8-2 The Project is required to comply with the City of Moreno Valley's standard condition of approval requiring the Project to comply with all recommendations given in its Water Quality Management Plan (*Technical Appendix H2* to this EIR).

PR 4.8-3 The Project is required to construct four (4) on-site infiltration/detention basins as indicated on the Project's proposed Tentative Parcel Map and Plot Plans.

PR 4.8-4 The Project is required to construct all buildings at elevations higher than the base flood elevation as indicated on the Project's Proposed Tentative Parcel Map and Plot Plans. During final engineering, an updated HEC-RAS study is required by the City of Moreno Valley to verify that all pad elevations are located at least one foot above flood water surface elevations (Weil 2012).

4.8.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: Less than Significant Impact. The proposed Project would not violate any water quality standards or waste discharge requirements on a direct or cumulative basis. The Project is required to prepare a SWPPP to address construction-related water quality issues, and would be required to comply with a site-specific WQMP and its associated BMPs.

Threshold 2: Less than Significant Impact. The proposed Project proposes no potable water wells and would not substantially impact the availability of potable groundwater in the Project area.

Threshold 3: Less than Significant Impact. The proposed Project would generally maintain the existing drainage pattern of the site, would have no effect on the courses of any streams or rivers, and would not result in substantial erosion or siltation on or off site.

Threshold 4: Less than Significant Impact. There would be no significant increases in flood hazard. The proposed Project would generally maintain the existing drainage pattern of the site, would have no effect on the courses of any streams or rivers, and would not result in a substantial increase in the rate of surface runoff in a manner which would result in increased flood hazards on or off site.

Threshold 5: Less than Significant Impact. The proposed Project would not create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems, nor would the Project provide substantial additional sources of polluted runoff.

Threshold 6: No Impact. There are no other components of the proposed Project with a potential to substantially degrade water quality.

Threshold 7: No Impact. The proposed Project does not involve the construction of residential housing and therefore would not place housing in a flood area.

Threshold 8: Less than Significant Impact. Although the Project would redirect flood flows on site (i.e., away from proposed structures), such changes would not result in increased flood hazards to any off-site properties.

Threshold 9: No Impact. The Project site is not subject to flood hazards associated with the failure of a levee or a dam.

Threshold 10: No Impact. The Project site is not subject to hazards associated with seiches, tsunamis, or mudflow.

4.8.7 MITIGATION

As concluded in the foregoing analysis, implementation of the proposed Project would not result in any significant impacts to hydrology/water quality; accordingly, mitigation would not be required.

4.9 LAND USE AND PLANNING

This subsection discusses compliance of the proposed Project with applicable land use and planning policies adopted by the City of Moreno Valley and other governing agencies for the purpose of reducing adverse effects on the physical environment.

The proposed Project (described in Section 3.0, Project Description) is consistent with the property's land use designations as applied by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208), as well as the property's zoning designation. CEQA Guidelines §15183(a) mandates that projects which are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified, shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. In this case, the subject property was evaluated as part of an EIR certified in 1989 for Specific Plan 208 (State Clearinghouse Number 1988080813) and as part of the City's General Plan Program EIR certified in 2006 (State Clearinghouse Number 2000091075). This subsection analyzes the Moreno Valley General Plan policies in detail, to show that development of the Project's proposed land uses were considered by the General Plan and, as such, analyzed in the City of Moreno Valley's General Plan EIR. Project compliance with land use and planning policies adopted by other agencies for purposes of reducing adverse effects on the physical environment area is analyzed as well. Reference sources for the plans and policies discussed below are included in Section 7.0, References.

4.9.1 EXISTING CONDITIONS

A. Existing Land Use and Development

Refer to Section 2.0, Environmental Setting, for a full description of existing on-site and off-site surrounding land uses. In summary, the Project site is a 75.05-acre vacant parcel of land, mostly containing ruderal vegetation that is routinely disced for fire fuel management. West of the Project site is the March Air Reserve Base (ARB). Other lands surrounding the Project site, including the Project site itself, are located in the City of Moreno Valley and are subject to the City's adopted Moreno Valley Industrial Area Plan (Specific Plan 208). Several large-scale industrial and warehouse buildings have been developed in this area and there are several approved development projects in this area that are pending construction.

Immediately abutting the Project site to the east is a rectangular-shaped parcel of vacant land comprising about 72 acres that is approved for industrial development by the City of Moreno Valley (Indian Business Park, PA07-0079, PA07-0080, PA07-121, P07-0093, and PA08-0018). To the north of the Project site is Iris Avenue, north of which are two vacant, undeveloped parcels that are approved by the City of Moreno Valley for future development as the Moreno Valley Industrial Park (PA07-0035, PA07-0039, and PA08-0021) and a residential subdivision (TM34748; located at the southeast corner of Gentian Avenue and Heacock Street). North of Iris Avenue and diagonal from the Project site's northeastern corner is an existing development of detached single-family homes, separated from Iris Avenue by a solid block wall. Properties to the immediate south and southeast of the Project site are undeveloped and are designated by the Moreno Valley General Plan and the Moreno Valley Industrial Area Plan for business park/light industrial land uses. Two (2) existing industrial/warehouse buildings are located approximately 0.15-mile south of the Project site.

B. Applicable Land Use and Planning Policies

❑ City of Moreno Valley General Plan

The City of Moreno Valley General Plan (July 11, 2006) is a policy document that reflects the City's vision for the future of Moreno Valley. The General Plan is organized into seven separate elements, including: Community Development; Economic Development; Parks, Recreation and Open Space; Circulation; Safety; Conservation; and Housing. Each element is associated with a series of policies to guide the City's vision for future development. The following is a summary of the City General Plan Elements.

Community Development Element

The Community Development Element functions as a land use guide for future development in the City. It identifies the general distribution, general location, and extent of land uses, such as housing, business, industry, open space, recreation, floodplains, and public facilities. These designations are reflected on the General Plan Land Use Map, which are applied on a parcel-by-parcel basis throughout the City. The Community Development Element also provides standards for residential density and non-residential intensity. It governs how land is to be used; therefore, many of the issues and policies contained in other elements of the General Plan are linked in some degree to this element.

The City of Moreno Valley General Plan designates the majority of the Project site for "Business Park/Light Industrial" land uses, while the northwestern corner of the site, at the intersection of Iris Avenue and Heacock Street, is designated for "Commercial" land uses. Refer to Figure 2-1, *Surrounding Land Uses and Development,* in Section 2.0, Environmental Setting. Lands to the north, east, southeast, and south are similarly designated for "Business Park/Light Industrial" land uses, while lands to the northeast are designated as residential at a maximum density of five homes per acre ("Residential: Max 5 du/ac (R5)"). (Moreno Valley 2006a, Ch. 2)

Economic Development Element

The Economic Development Element is an Element that is intended to be added to the General Plan in the future following completion of an Economic Development Strategy, which is presently being conducted in conjunction with the City Council. At present, there is no policy guidance provided by the General Plan's Economic Development Element. (Moreno Valley 2006a, Ch. 3)

Parks, Recreation and Open Space Element

The Parks, Recreation and Open Space Element includes specific policies related to open space preservation, outdoor recreation and recreation facilities, and trails. The Project site is not designated as an open space or park area by the City of Moreno Valley General Plan. (Moreno Valley 2006a, Ch. 4)

Circulation Element

The purpose of the Circulation Element is to develop a safe, efficient, environmentally and financially sound, integrated vehicular circulation system. It also is intended to provide for safe and adequate non-vehicular transportation, including pedestrian, bicycle, and public

transportation systems. Figure 9-1 of the Circulation Element identifies the long-term vehicular circulation facilities planned throughout the City. As shown on Figure 9-1 of the General Plan, both Iris Avenue and Heacock Street are identified for development as "Arterial (100-foot right-of-way)," while Krameria Avenue is identified for improvement as a "Minor Arterial (88-foot right-of-way)." The Circulation Element also depicts level of service (LOS) standards for Circulation Element roadways throughout the City. Figure 9-4 of the Circulation Element, *Bikeway Plan*, identifies the location of planned bicycle facilities throughout the City, and identifies the portions of Heacock Street and Iris Avenue abutting the Project site for Class III bike lanes, which are defined in the General Plan as routes that are "designated bikeways, not striped, and are shared with vehicles." The Circulation Plan also identifies the location of existing and proposed trails throughout the City, although there are no existing or proposed trail facilities located in the Project area (Moreno Valley 2006a, Ch. 5).

Safety Element

The goal of the Safety Element is to assist the City in achieving acceptable levels of protection from natural and man-made hazards to life, health, and property, and to ensure that emergency services in the City are adequate to meet the City's needs during both minor emergencies and major catastrophic situations (Moreno Valley 2006a, Ch. 6).

Conservation Element

The Conservation Element is intended to achieve the wise use of natural resources within the City and immediate environs. Issues addressed by the Conservation Element include erosion, water quality and supply, biological resources and associated habitat, energy conservation, historical/archaeological resources, visual quality, and solid waste and recycling (Moreno Valley 2006a, Ch. 7).

Housing Element

The Housing Element identifies and establishes the City's policies with respect to meeting the needs of existing and future residents of the City. Specific components of the Housing Element, which also are requirements of state law, include the following: an assessment of housing needs and inventory; an analysis and program for preserving assisted housing developments; a statement of community goals, quantified objectives, and policies relative to the maintenance, preservation, improvement, and development of housing; and a program which sets forth a five-year schedule of actions that the City is undertaking, or intends to undertake to implement the policies set forth in the Housing Element (Moreno Valley 2006a, Ch. 8).

The proposed Project's consistency with the goals, objectives, policies, and programs given in the City of Moreno Valley General Plan is discussed below in Subsection 4.9.3.

❑ Moreno Valley Industrial Area Plan (Specific Plan 208)

The Project site is located within the Moreno Valley Industrial Area Plan (MVIAP) Specific Plan 208 (SP 208) boundaries, which encompasses approximately 1,540 acres in the southwestern portion of the City of Moreno Valley. The MVIAP is the planning and regulatory document for all development within the Area Plan boundaries. Its development regulations and design guidelines are

intended to ensure quality development that will contribute to the City's industrial employment base, while ensuring compatibility with adjacent land uses and the City of Moreno Valley General Plan (Moreno Valley 2002).

As shown on Figure 2-5, *Moreno Valley Industrial Area Plan Map*, SP 208 designates the majority of the proposed Project site for "Industrial" development, while the northwestern corner of the Project site is designated for "Industrial Support Areas." The Industrial designation is intended to cover a wide range of industrial and industrial/business related support uses. The Industrial Support Areas are intended to allow industrial/business support services, such as food service, gas stations, office supply, and day care. A complete description of allowable uses, development standards, and guidelines associated with the site's "Industrial" and "Industrial Support Areas" designations is provided in Section III of the MVIAP (Moreno Valley 2002 III).

As also shown on Figure 2-5, the MVIAP identifies the northeastern corner of the proposed Project site as part of a "300' Residential Buffer," which is intended to provide a buffer between residential districts abutting the MVIAP industrial uses, while also maintaining the integrity of lands available for industrial uses (Moreno Valley 2002 III-2).

Section IV of the MVIAP, Development Framework, specifies planned roadway improvements. The MVIAP designates Iris Avenue and Heacock Street as "Major Arterials (100-foot right-of-way)," and designates Krameria Avenue as a "Minor Arterial (88-foot right-of-way)" (Moreno Valley 2002 IV-6 &7).

Additionally, the MVIAP identifies specific goals and objectives related to land use compatibility, urban design, and public facilities and services. Guidelines are provided related to urban design, urban form, landscape design, special corridors, open space/trails, and entries. In addition, the MVIAP provides development standards related to drainage and flood control, water and wastewater, and public services, and includes policies related to implementation of the MVIAP. The proposed Project's consistency with the applicable portions of the MVIAP is discussed below in Subsection 4.9.3.

❑ City of Moreno Valley Zoning Ordinance

Development of the Project site is regulated by the MVAIP (SP208), described above, which applies the "Industrial (I)" zoning designation to the proposed Project site. Specific Plans (including SP 208) are addressed in Chapter 9.13 of the City of Moreno Valley Municipal Code. The "Industrial (I)" designation applied by the MVIAP and codified in City Municipal Code Chapter 9.05 permits a wide range of industrial and industrial/business related support uses, including light manufacturing and storage and distribution of facilities. Lands immediately adjacent to the Project site on the north, east, southeast, and south also are designated as "Industrial (I)" as part of the MVIAP. The March Air Reserve Base, located west of the Project site, is not subject to Moreno Valley zoning regulations. Lands located northeasterly of the Project site are zoned by the City of Moreno Valley as "Suburban Residential (R5)," which allows for residential development on common sized suburban lots (i.e., single-family residential or mobile homes at densities of up to five (5) dwelling units per net acre).

The City of Moreno Valley's Zoning Ordinance is contained as Title 9 of the City of Moreno Valley Municipal Code. The proposed Project's consistency with the applicable portions of the Title 9 is discussed below in Subsection 4.9.3.

❑ Riverside County Multiple Species Habitat Conservation Plan

The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on conservation of species and their associated habitats in Western Riverside County. The MSHCP is one of several large, multi-jurisdictional habitat planning efforts in southern California with the overall goal of maintaining biological and ecological diversity within a rapidly urbanizing region. The purpose of the MSHCP is to allow Riverside County and its cities to better control local land use decisions and maintain a strong economic climate in the region while addressing the requirements of the state and federal Endangered Species Acts (Riverside County 2003b.)

The Project site is located in a portion of Riverside County that is planned for long-term development. As shown on Figure 2-6, *MSHCP Criteria Areas*, no portion of the Project site or surrounding area is identified for conservation by the MSHCP. The nearest lands proposed for conservation under the MSHCP occur south of Cajalco Road and west of I-215 (within the Mead Valley Area Plan), approximately 3.25 miles southwest of the Project site within unincorporated Riverside County.

Although the Project site is not designated for conservation under the MSHCP, the MSHCP does include certain policies requiring additional surveys and possibly conservation of resources it targets for conservation. According to the Western Riverside County MSHCP Conservation Summary Report Generator[1], the Project site is subject only to MSHCP survey requirements for the Burrowing Owl. The proposed Project's consistency with the MSHCP is discussed generally below in Subsection 4.9.3 and in detail in Subsection 4.3, Biological Resources.

❑ SCAQMD Air Quality Management Plan

California Health & Safety Code §40702 et seq., the California Clean Air Act, requires that an Air Quality Management Plan (AQMP) be developed and then updated every three years for air basins with non-attainment status. The Project site is located in the South Coast Air Basin, which has non-attainment status for ozone (O_3) and particulate matter (PM_{10} and $PM_{2.5}$). The South Coast Air Quality Management District (SCAQMD) Governing Board adopted its most recent AQMP on June 1, 2007. Every three years, the SCAQMD prepares a plan for air quality improvement within the AQMD area boundaries. Each iteration of the plan is an update of the previous plan and has a 20-year horizon with a revised baseline. The SCAQMD is preparing an update to the 2007 AQMD document, but that update had not been released for public review at the time of this EIR's NOP (June 2011).

The AQMP is a plan for the regional improvement of air quality. Projects such as the proposed Project relate to the air quality planning process through the growth forecasts that were used as inputs into the regional transportation model. If a proposed project is consistent with these growth forecasts, and if all available emissions reduction strategies are implemented as effectively as possible on a project-specific basis, then the project is consistent with the AQMP. The proposed

[1] Available on-line at: http://www.rctlma.org/online/content/rcip_report_generator.aspx.

Project's consistency with the AQMP is discussed generally below in Subsection 4.9.3 and in more detail in Subsection 4.2, Air Quality.

❑ SCAG Regional Transportation Plan and Regional Comprehensive Plan

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code §6500, also referred to as the Joint Powers Authority law. SCAG is designated as a council of governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). SCAG serves as an area-wide clearinghouse for regionally significant projects. SCAG reviews the consistency of local plans, projects, and programs with regional plans. Guidance provided by this review process is intended to assist local agencies and project sponsors to take actions that contribute to the attainment of regional goals and policies.

If a development project meets the CEQA Guidelines Section 15206(b)(2)(E) definition of a project having statewide, regional, or area-wide significance, then the project is required to be reviewed for consistency with regional plans. Because the proposed Project proposes more than 650,000 s.f. of non-residential floor space, the Project meets the definition of a project with regional significance and requires a consistency evaluation with regional plans. The applicable SCAG policy documents identified for evaluation include the Regional Comprehensive Plan (RCP) and the Regional Transportation Plan (RTP). This EIR evaluates Project consistency with the 2008 RCP and RTP, which were the applicable SCAG planning documents at the time the NOP for this EIR was released for public review (June 2011). Since that time, SCAG released a 2012 Draft RTP/SCS; however, because that document was not available nor approved in June 2011, the 2008 RCP and RTP are applicable for evaluation purposes in this EIR.

The 2008 RCP is a regional plan that is intended as a holistic, strategic plan for defining and solving inter-related housing, traffic, water, air quality, and other regional challenges. The RTP's guiding principals are to: 1) improve mobility for all residents; 2) foster livability in all communities; 3) enable prosperity for all people; and 4) promote sustainability for future generations (SCAG 2008c). The proposed Project's consistency with the RCP is discussed below in Subsection 4.9.3.

The 2008 RTP presents a regional transportation vision for the region through the year 2035. Goals of the RTP are to: 1) maximize mobility and accessibility for all people and goods in the region; 2) ensure travel safety and reliability for all people and goods in the region; 3) preserve and ensure a sustainable transportation system; 4) maximize productivity of the transportation system; 5) protect the environment, improve air quality, and promote energy efficiency; 6) encourage land use and growth patterns that complement the transportation investments and improve the cost-effectiveness of expenditures; and 7) maximize the security of the transportation system (SCAG 2008b). Performance measures and funding strategies also are included to ensure that the adopted goals are achieved through implementation. The proposed Project's consistency with the RTP is discussed generally below in Subsection 4.9.3 and in more detail in Subsection 4.11, Transportation and Traffic.

❑ Riverside County Airport Land Use Plan for the March Air Reserve Base

The Riverside County Airport Land Use Commission (RCALUC) is the local airport land use commission for airports within Riverside County, and pursuant to the California State Aeronautics Act (Public Utility Code §21670 et seq.) is tasked with preparing and adopting an airport land use

compatibility plan, and for reviewing proposed plans, regulations, and other actions of local agencies and airport operators for consistency with the plan.

The Project site is located adjacent and east of the March Air Reserve Base, which is owned and operated by the United States Air Force (USAF). An updated compatibility plan for the March Air Reserve Base is currently under consideration by the RCALUC, and in the interim has made available a 2005 compatibility map designating lands surrounding the airport into three distinct zones. The proposed Project site is located within Compatibility Zone II, which is identified as an area that is subject to airport-related noise, but is not an area that is prone to safety issues associated with airport operations. The proposed Project's consistency with the Riverside County Airport Land Use Plan for the March Air Reserve Base (ARB) is discussed below in Subsection 4.9.3.

- **USAF March Air Reserve Base Air Installation Compatibility Use Zone Study**

In 2005, the USAF prepared the March ARB Air Installation Compatibility Use Zone Study (AICUZS), which incorporates an extensive analysis of the effects of aircraft noise, accident potential, and compatible land use and development for lands surrounding the March ARB. Figures 3-1 and 3-2 of the AICUZS depict areas surrounding the airport that are subject to noise zones or accident potential zones. The proposed Project site is located outside of the 60 dBA CNEL contour, indicating that the Project site is not subject to substantial amounts of aircraft-related noise. (Air Force 2005)

For accident potential, the AICUZS identifies three distinct zones: Clear Zone (CZ), which is the area closest to the runways and has the highest potential for accidents; Accident Potential Zone (APZ) I, which is an area beyond the CZ which possesses a high potential for accidents; and APZ II, which is an area beyond APZ I with measurable potential for accidents. According to Figures 3-1 and 3-2 of the AICUZS, the proposed Project site is not located within or adjacent to the CZ, APZ I, or APZ II zones, thereby indicating that the proposed Project site is not subject to any measurable potential for accidents (Air Force 2005).

4.9.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to land use and planning if the Project or any Project-related component would:

1. *Physically divide an established community;*

2. *Conflict with an applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or*

3. *Conflict with any applicable habitat conservation plan or natural community conservation plan.*

4.9.3 IMPACT ANALYSIS

Threshold 1: Would the proposed Project physically divide an established community?

The Project site is vacant under existing conditions. Development of a business center with light industrial and warehouse distribution buildings on the Project site would not physically disrupt or divide the arrangement of an established community. The proposed Project site is located in a developing area of the City that is designated for industrial development by the City's General Plan and Moreno Valley Industrial Area Plan. The Project site is proposed to be developed with a business center in accordance with its assigned General Plan and zoning designations. Properties adjacent to the Project site have either been developed or are planned for development. Immediately abutting the Project site to the east is a vacant parcel that is approved for industrial development as Indian Business Park. To the north of the Project site is Iris Avenue, north of which is a vacant parcel approved for development as the Moreno Valley Industrial Park. West of the Project site is March Air Reserve Base and to the south is vacant land designated for additional industrial development.

Buildout of the Project site as proposed, including the proposed construction of Krameria Avenue between Indian Avenue and Heacock Street, would improve local connectivity. The Perris Valley Channel bisects the site and surrounding properties and serves as a physical divider in the community. Implementation of the Project on either side of the existing channel would not divide a community, but it is acknowledged that the existing channel physically divides the Project. The Project site does not provide access to established communities and would not isolate any established communities or residences from neighboring communities. No impact would occur.

Threshold 2: Would the proposed Project conflict with an applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Subsection 4.9.1 described the land use planning and policy documents that are applicable to the proposed Project. Provided below is a discussion of the Project's consistency with those policy documents.

❑ City of Moreno Valley General Plan

The City of Moreno Valley General Plan designates the majority of the Project site for "Business Park/Light Industrial" land uses, while the northwestern corner of the site, at the intersection of Iris Avenue and Heacock Street, is designated for "Commercial" land uses. No detailed descriptions of these land uses are given and the area designated as "Commercial" is described as "Industrial Support Area" in the MVIAP (discussed below). The March Business Center would provide 1,484,407 square feet (s.f.) of building space for an industrial business center on the subject property that is consistent with these General Plan land use designations. Tenants of the proposed buildings have not yet been identified.

A General Plan Amendment (PA11-0001) is proposed as part of the Project to modify the Circulation Element of the City of Moreno Valley General Plan. The proposed modifications to the Circulation

Element would consist of changes to the planned alignment and classification of a segment of Krameria Road between Heacock Street and proposed Cosmos Street, as described in Subsection 3.3.4. The intended purpose of this change is to improve the planned circulation network by providing a 90-degree intersection where Krameria Avenue meets Heacock Street and to provide a perpendicular connection between Heacock Street and proposed Cosmos Street to allow for more safe and efficient local circulation system. The proposed General Plan Amendment is an inherent part of the proposed Project and is evaluated throughout this EIR. No adverse environmental impacts specifically attributable to the General Plan Amendment have been identified.

Table 4.9-1, *Moreno Valley General Plan Policy Consistency Analysis*, provides a detailed analysis of the proposed Project's consistency with all applicable goals, objectives and policies of the General Plan. As shown in Table 4.9-1, the proposed Project would not conflict with any applicable goal, objective, or policy of the General Plan. The Project is determined to be consistent with the General Plan and there would be no adverse impact.

❑ Moreno Valley Industrial Area Plan

The MVIAP identifies the site for development with Industrial land uses over most of the site, with exception of the northwestern corner that is designated as Industrial Support Areas. The Project proposes to develop the site as an industrial business park as described in Section 3.0, Project Description. The land use proposed by the Project is consistent with the Industrial designation, as well as the Industrial Support Areas designation that occurs within 300 feet of the intersection of Heacock Street and Iris Avenue. As indicated in the MVIAP's Industrial Land Use Table (refer to Section III.D of the MVIAP), light and medium warehouse distribution facilities such as are proposed by the Project are permitted within Industrial Support Areas. In addition, the Project does not propose any uses within Parcel 1 that are prohibited by the MVIAP, such as petroleum product storage. The MVIAP also does not specify any uses that are required within the Industrial Support Areas (such as commercial land uses); therefore, land uses proposed for Parcel 1 would be fully consistent with the MVIAP's land use designations.

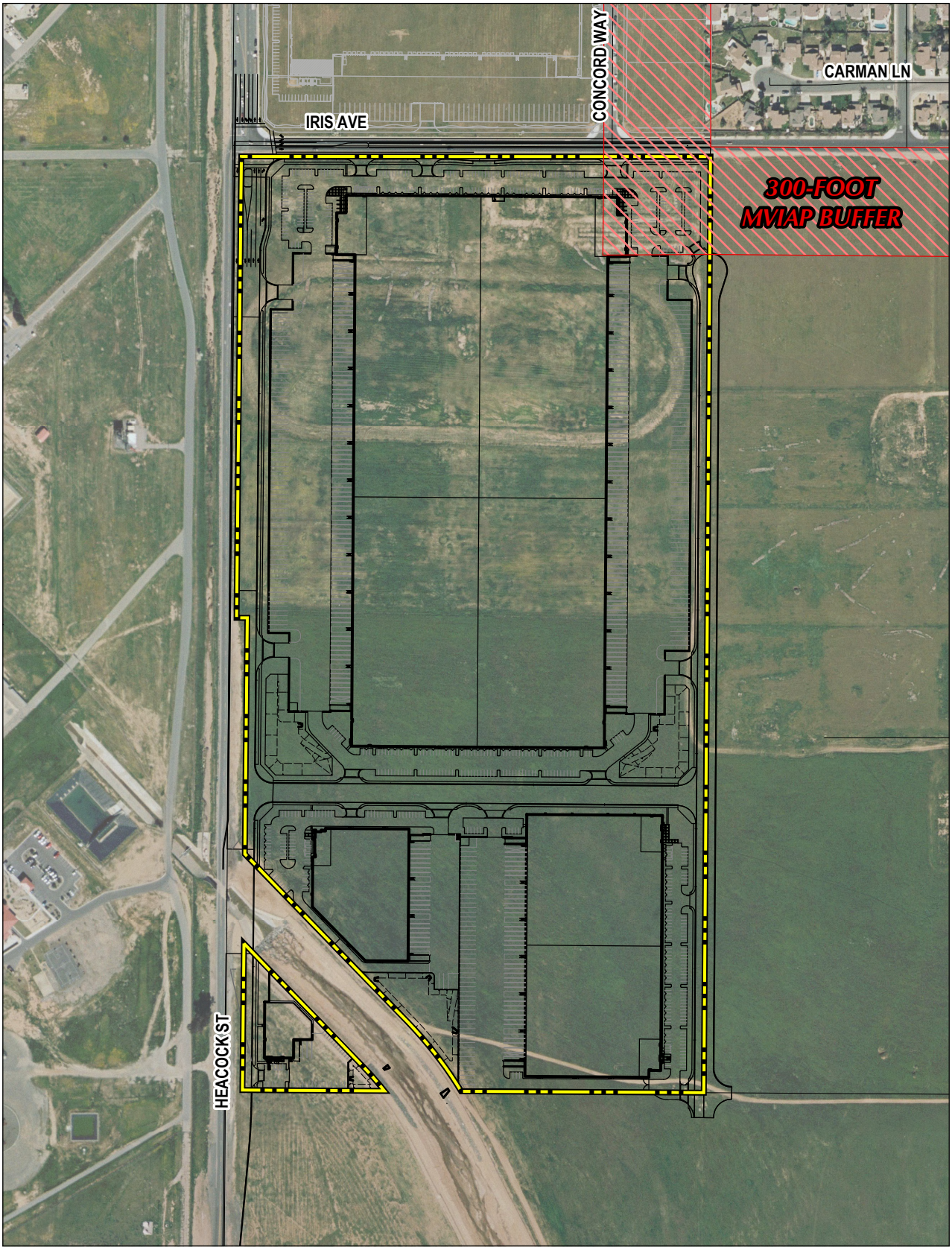
The MVIAP also includes a requirement related to the location of industrial land uses within close proximity of residential districts, which is listed under the subheading, "300 Foot Proximity to Residential District." The relationship of the proposed Project site to nearby residential uses located to the northeast is depicted on Figure 4.9-1, *MVIAP 300-Foot Residential Buffer*. Although the proposed Project would introduce development within the 300-foot buffer zone, the proposed features in this zone would consist of a parking lot for passenger cars, the primary entry and office portion of the building on Parcel 1, and landscaping. MVIAP's criteria for the 300-foot buffer zone specifically notes, "[w]here parcels exceed 300 feet in depth from a major arterial, permitted uses may extend beyond this distance so as not to affect the integrity of industrial uses, if the development proposal is part of an integrated industrial or business park" (Moreno Valley 2002 III-2). The proposed Project site abuts two arterial roadways (Heacock Street and Iris Avenue), and proposed Parcel No. 1 is designed to be 1,212 feet in depth. The placement of a passenger car parking lot, landscaping, and the main entry and office portion of the building on Parcel 1 in the 300-foot buffer zone, as depicted on Figure 4.9-1, retains the integrity of proposed industrial uses on the site. Because the proposed development is part of an integrated industrial business center, the proposed Project would not conflict with the MVIAP's "300 Foot Proximity to Residential District" criteria.

In addition, the City of Moreno Valley Planning Department conducted a thorough review of the proposed Project for consistency with applicable development requirements specified by the MVIAP, and determined that the proposed Project is consistent with the MVIAP, assuming approval of the Project's development applications as designed (*i.e.*, PA11-0001, PA11-0002, PA11-0003, PA11-0004, PA11-0005, PA11-0006, PA11-0007, and P11-004) and the associated Conditions of Approval that will be prepared by the City. If approved, the Project will be required to comply with all imposed Conditions of Approval. The Project is determined to be consistent with the land use designation and applicable policies of the MVAIP and there would be no adverse impact.

Similar to the General Plan Amendment described above, the proposed realignment and reclassification of Krameria Avenue through the Project site would require an amendment to the MVIAP. The intended purpose of this change is to improve the planned circulation network by providing a 90-degree intersection where Krameria Avenue meets Heacock Street and to provide a perpendicular connection between Heacock Street and proposed Cosmos Street to allow for more safe and efficient local circulation system. The proposed Specific Plan Amendment is an inherent part of the proposed Project is evaluated throughout this EIR. No adverse environmental impacts specifically attributable to the Specific Plan Amendment have been identified.

❑ Western Riverside County MSHCP

As indicated in Subsection 4.9, Biological Resources, the Project site is not designated for conservation under the MSHCP; however, the MSHCP does include certain policies related to the Burrowing Owl that are applicable to the proposed Project. As concluded under the analysis of Threshold 6 in EIR Section 4.3, Biological Resources, the proposed Project would be consistent with the MSHCP's Reserve Assembly Requirements, as well as other applicable MSHCP requirements pursuant to the following sections of the MSHCP: Section 6.1.2, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools; Section 6.1.3, Protection of Narrow Endemic Plant Species; Section 6.1.4, Guidelines Pertaining to the Urban/Wildland Interface; and Section 6.3.2, Additional Survey Needs and Procedures. Therefore, a significant impact due to a conflict with the MSHCP would not occur.



Source: RCTLMA (2011), Eagle Aerial (2008), Thienes Eng.

Figure 4-9.1

Moreno Valley Industrial Area Plan 300-ft. Residential Buffer

❑ SCAQMD Air Quality Management Plan

An analysis of the proposed Project's consistency with the SCAQMD Air Quality Management Plan is provided in EIR Subsection 4.2, Air Quality, under the analysis of Threshold 1. As concluded in EIR Subsection 4.2, the proposed Project would be fully consistent with the SCAQMD Air Quality Management Plan. No impacts would occur.

❑ SCAG Regional Transportation Plan

An analysis of the proposed Project's consistency with SCAG's Regional Transportation Plan is provided in Table 4.9-2, *Project Consistency with SCAG Regional Transportation Goals*. As indicated in Table 4.9-2, the proposed Project would not conflict with any of SCAG's Regional Transportation Goals. No impacts would occur.

❑ SCAG Compass/Growth Visioning Principles

An analysis of the proposed Project's consistency with SCAG's Compass/Growth Visioning Principles is provided in Table 4.9-3, *Project Consistency with SCAG Compass/Growth Visioning Principles*. As indicated in Table 4.9-3, the proposed Project would not conflict with any of SCAG's Compass/Growth Visioning Principles. No impacts would occur.

❑ Riverside County Airport Land Use Plan for the March Air Reserve Base

The proposed Project site is located within Compatibility Zone II of the March Air Reserve Base, which is identified as an area that is subject to substantial airport-related noise, but is not an area that is prone to safety issues associated with airport operations. An analysis of potential impacts to the Project from operations at the adjacent March ARB associated with aircraft noise is provided in EIR Section 4.10, *Noise*, which concludes that such impacts would not be significant. Accordingly, the Project would be consistent with the land use restrictions identified in the Riverside County Airport Land Use Plan for the March ARB. No impacts would occur.

❑ USAF March Air Reserve Base Air Installation Compatibility Use Zone Study

The proposed Project site is located outside of the 60 dBA CNEL contour of the March Air Reserve Base and is not identified within the CZ, APZI, or APZ II zones. Accordingly, the Project site is not subject to any land use restrictions associated with the USAF March ARB AICUZS. The proposed Project is therefore consistent with the USAF March ARB AICUZS. No impacts would occur.

As indicated in the above analysis, the proposed Project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating any environmental effects. Accordingly, a no adverse impact to land use and planning would occur.

Threshold 3: Would the proposed Project conflict with any applicable habitat conservation plan or natural community conservation plan?

The only applicable habitat conservation plan or natural community conservation plan within the Project area is the Western Riverside County MSHCP. As indicated in the analysis of the Project's consistency with the MSHCP under Threshold 2 and in Subsection 4.4, Biological Resources, the proposed Project would be fully consistent with the MSHCP's policies. Accordingly, there would be

no conflict with an applicable habitat conservation plan or natural community conservation plan. No impact would occur.

4.9.4 CUMULATIVE IMPACT ANALYSIS

As discussed under the analysis of Threshold 1, the proposed Project would not result in the physical division of any established communities, nor would the development of any parcel surrounding the Project site. No cumulative impact associated with community division is identified and the Project has no potential to cumulatively contribute to physical community division.

As discussed under the analysis of Thresholds 2 and 3, the proposed Project would not conflict with or adversely affect the implementation of any applicable plan, policy, regulation, or habitat conservation plan/natural community conservation plan. Accordingly, there is no potential for the Project to contribute to any cumulatively significant impacts due to a conflict with plans, policies, regulations, or habitat conservation plans/natural community conservation plans.

4.9.5 APPLICABLE PROJECT REQUIREMENTS

The following is a standard to which the Project would be required to adhere. Compliance with this requirement was assumed throughout the above analysis of cultural resources.

PR 4.9-1 The Project is required to comply with all Conditions of Approval issued by the City of Moreno Valley associated with the Project's permit applications (*i.e.*, PA11-0001, PA11-0002, PA11-0003, PA11-0004, PA11-0005, PA11-0006, PA11-0007, and P11-004).

4.9.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: No Impact. The proposed Project would not result in the physical division of any established communities.

Threshold 2: No Impact. The proposed Project would not conflict or adversely affect the implementation of with any applicable plan, policy, or regulation adopted for the purpose of avoiding or reducing environmental effects.

Threshold 3: No Impact. The proposed Project would not conflict with or adversely affect the implementation of the Western Riverside County MSHCP, nor any other habitat conservation plans or natural community conservation plans.

4.9.7 MITIGATION

Impacts would not be significant; therefore, mitigation is not required.

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
Community Development Element	Goal 2.1: A pattern of land uses, which organizes future growth, minimizes conflicts between land uses, and which promotes the rational utilization of presently underdeveloped and undeveloped parcels.	No inconsistencies identified. Land uses proposed by the Project are consistent with the City's General Plan, Zoning Ordinance, and the MVIAP. Land uses designations identified by these documents depict a pattern of land uses that fulfills this goal.
	Goal 2.2: An organized, well-designed, high quality, and functional balance of urban and rural land uses that will meet the needs of a diverse population, and promote the optimum degree of health, safety, well-being, and beauty for all areas of the community, while maintaining a sound economic base.	No inconsistencies identified. Land uses proposed by the Project are consistent with the City's General Plan, Zoning Ordinance, and the MVIAP, all of which have been designed to ensure fulfillment of this goal. The Project relates to this goal, in particular, by enhancing employment opportunities within the City to the benefit of the City's economic base.
	Goal 2.3: Achieves an overall design statement that will establish a visually unique image throughout the City.	No inconsistencies identified. The proposed Project would be developed in accordance with the criteria specified in the MVIAP, including standards for urban form, landscape design, entries, and lighting. Compliance with the MVIAP design guidelines incorporated in the Project's design and enforced through City of Moreno Valley standard Conditions of Approval would ensure consistency with this Goal.
	Goal 2.5: Maintenance of systems for water supply and distribution; wastewater collection, treatment, and disposal; solid waste collection and disposal; and energy distribution which are capable of meeting the present and future needs of all residential, commercial, and industrial customers within the City of Moreno Valley.	No inconsistencies identified. An analysis of Project impacts on water supply and distribution; wastewater collection, treatment and disposal; and solid waste collection and disposal, is provided in EIR Subsection 4.12, which concludes that there are adequate services and facilities to serve the proposed Project. Energy distribution systems also are available at the proposed Project site, and the Project would not adversely affect the ability of electricity providers to serve other properties in the surrounding area.
	Objective 2.1: Balance the provision of urban and rural lands within Moreno Valley by providing adequate land for present and future urban and economic development needs, while retaining the significant natural features and the rural character and lifestyle of the north-eastern portion of the community.	No inconsistencies identified. As noted under the analysis of consistency with Goal 2.1, the proposed Project is consistent with the General Plan, Zoning Ordinance, and MVIAP, all of which have been designed to meet this objective.
	Objective 2.4: Provide commercial areas within the City that are conveniently located, efficient, attractive, and have safe and easy pedestrian and vehicular circulation in order to serve the retail and service commercial needs of Moreno Valley residents and businesses.	No inconsistencies identified. Objective 2.4 addresses commercial development, which is not proposed as part of the Project. Although the General Plan designates the northwestern corner of the Project site as "Commercial," the MVIAP designates this same area is "Industrial Support Areas." Commercial areas are accommodated in other locations within the City and the Project would not result in the conversion of commercially-designated

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
		lands to other uses.
	Objective 2.5: Promote a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors; and which meets the service needs of local businesses.	No inconsistencies identified. The proposed Project is consistent with the General Plan, Zoning Ordinance, and the MVIAP land use designations, all of which were designed to fulfill this objective. Additionally, the proposed Project site is located along major arterials with good access to Interstate 215.
	Policy 2.5.1: The primary purpose of areas designated Business Park/Industrial is to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. The zoning regulations shall identify the particular uses permitted on each parcel of land. Development intensity should not exceed a Floor Area Ratio of 1.00 and the average floor area ratio should be significantly less.	No inconsistencies identified. The proposed Project would accommodate industrial development on-site in a manner consistent with the MVIAP development standards and guidelines, and the uses identified in the MVIAP are consistent with those of the zoning regulations specified in the Municipal Code. The Project proposes development on-site at a floor area ratio of 0.51, which is less than the 1.00 specified by this policy.
	Policy 2.5.2: Locate manufacturing and industrial uses to avoid adverse impacts on surrounding land uses.	No inconsistencies identified. The only land uses surrounding the Project site that could be impacted by industrial development are the residential neighborhoods located to the northeast and east of the site. Other approved industrial projects (Indian Business Park, PA07-0079, PA07-0080, PA07-121, P07-0093, and PA08-0018) and Moreno Valley Industrial Park (PA07-0035, PA07-0039, and PA08-0021), would be closer to these residential areas than the proposed Project. Still, the proposed Project would be required to comply with the MVIAP's designation of the northeastern corner of the site as part of the 300' Residential Buffer area, which is intended to buffer nearby residential areas from industrial activities planned within the MVIAP area. The nearest sensitive receptor is located approximately 115-feet away from the northeast corner of the Project, as measured from the property boundary, and the building proposed on the Project's Parcel 1 would be located more than 200 feet interior to the Project site. An analysis of potential impacts to surrounding land uses is provided in EIR Sections 4.1, Aesthetics, 4.2, Air Quality, 4.7, Hazards/Hazardous Materials, 4.8, Hydrology/Water Quality, and 4.10, Noise. Under each of these sections, impacts to surrounding land uses would be less than significant in the long-term, or would be reduced to a level below significant with the incorporation of mitigation measures. There would be a

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
		significant and unmitigated impact associated with short-term construction noise during the period of time that the Project is under construction. This impact would occur with the development of any land use on the project site and is not associated with the Project's land use; therefore, no land use impact would occur.
	Policy 2.5.3: Screen manufacturing and industrial uses where necessary to reduce glare, noise, dust, vibrations and unsightly views.	No inconsistencies identified. An analysis of potential impacts associated with glare and visual quality is provided in EIR Subsection 4.1. As concluded in the analysis in Subsection 4.1, the Project has been designed so as to prevent offensive views to off-site properties, and would accommodate 9' to 14' walls around any truck parking or loading area that would be visible from adjacent roadways. These walls would be constructed behind a 6-foot tall landscaped berm to soften the visual effects of the wall. Along the Project's perimeter where walls are not proposed, extensive landscaping is proposed so as to screen the development from off-site areas. In addition, no component of the proposed Project would result in substantial amounts of glare. Significant noise and dust impacts would only occur during the Project's construction phase These impacts would occur with the development of any land use on the project site and are not associated with the Project's land use; therefore, no land use impact would occur.
	Policy 2.5.4: Design industrial developments to discourage access through residential areas.	No inconsistencies identified. Circulatory access to the proposed Project site would be accommodated primarily by Heacock Street, Iris Avenue, and Krameria Avenue, and these roadways provide access to Interstate 215 without traversing residential areas. The design of the Project therefore inherently discourages Project-related traffic from using residential streets. Truck and haul traffic is restricted to approved truck routes.
	Objective 2.8: The major purpose of specific plans is to encourage and promote the development of larger-scaled mixed-use developments for the purpose of providing adequate flexibility and innovation in residential building types, land use mixes, site design, and development concepts.	No inconsistency identified. The Project is part of an approved Specific Plan that encourages and promotes the development of a large-scale development and that provides adequate flexibility and innovation in land uses, site design, and development concepts. The Project is consistent with the MVIAP.
	Policy 2.8.1: In order to provide superior design solutions, reduce adverse environmental impacts, preserve scenic values, and enhance the provision of open space and other amenities, transfers of residential densities permitted under the General	No inconsistency identified. The portion of this policy relating to transfer of residential density is not applicable to the proposed Project, as the Project proposes only industrial business park land uses. Development on the proposed Project site would occur in conformance with the MVIAP, which includes

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
	Plan may be accomplished in accordance with the following: *a. The transfer of residential densities may be accomplished only pursuant to approval of a planned unit development or hillside development.* *b. Up to one hundred percent (100%) of the density indicated on the General Plan Land Use map may be transferred within a single hillside development or planned unit development project. Densities may not be transferred from one project to another.* *c. The proposed transfer of densities shall be accomplished such that the project results in a superior use of land, increased sensitivity to the environment, and/or enhanced project amenities without an increased burden on public facilities and services.*	design guidelines and standards to ensure that the design of implementing projects adheres to this policy. As concluded in EIR Subsection 4.1, *Aesthetics*, the Project would not result in any significant impacts to visual quality. The Project site also is not identified by the General Plan for preservation of open space, nor is the Project site located adjacent to any existing or proposed open space areas.
	Policy 2.8.2: To the extent that development policies, land use standards, design guidelines, and other provisions of the adopted specific plans are, by their content, intended to address issues contained in the objectives, policies, and implementation programs of the Moreno Valley General Plan, and are inconsistent with the provisions of the General Plan, then the provisions of those specific plans shall be controlling; otherwise, all other provisions of the Moreno Valley General Plan shall remain in effect.	No inconsistency identified. The proposed Project would be developed in a manner consistent with the MVIAP. For issues where the MVIAP is silent, the Project would be consistent with applicable General Plan objectives, policies, and implementation programs (as indicated in the analysis presented throughout this Table 4.9-1.
	Objective 2.10: Ensure that all development within the City of Moreno Valley is of high quality, yields a pleasant living and working environment for existing and future residents, and attracts business as the result of consistent exemplary design.	No inconsistency identified. The proposed Project would be developed in accordance with the MVIAP, which incorporates a variety of development standards and guidelines intended to ensure that development within the MVIAP boundaries meets the purpose of this objective.
	Policy 2.10.1: Encourage a design theme for each new development that is compatible with surrounding existing and planned developments.	No inconsistency identified. The MVIAP was designed so as to ensure compatibility with both surrounding land uses and within the MVIAP area. The Project complies with the MVIAP's "300' Residential Buffer," which was imposed to ensure compatibility between industrial uses within the MVIAP and residential uses located in close proximity to the MVIAP.
	Policy 2.10.2: Screen trash storage and loading areas, ground	No inconsistency identified. General Note No. 9 on Sheet A 0.1 of the Master

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
	and roof mounted mechanical equipment, and outdoor storage areas from public view as appropriate.	Plot Plan requires the following: Trash enclosures shall be designed per modified City standards to include a fully covered roof over the enclosure and accommodate two trash bins, one for trash and the other for recyclables."
	Policy 2.10.3: Require exterior elevations of buildings to have architectural treatments that enhance their appearance. *a. A design theme, with compatible materials and styles should be evident within a development project;* *b. Secondary accent materials, colors and lighting should be used to highlight building features;* *c. Variations in roofline and setbacks (projections and recesses) should be used to break up the building mass.* *d. Industrial buildings shall include architectural treatments on visible facades that are aesthetically pleasing.*	No inconsistency identified. Architectural elevations included in the Master Plot Plan convey a design theme that incorporates compatible materials and styles. Secondary accent materials, including variations in color and architectural style. Roof lines are proposed with some variation in heights. Architectural projections have been incorporated into the façade, particularly near entrances, to help break up the building mass. All proposed industrial buildings would have aesthetically pleasing treatments to facades visible from off-site locations.
	Policy 2.10.4: Landscaping and open spaces should be provided as an integral part of project design to enhance building design, public views, and interior spaces; provide buffers and transitions as needed; and facilitate energy and resource conservation.	No inconsistency identified. The proposed Project incorporates areas of landscaping and open space areas which are integral to the Project's design. Open landscaped areas are provided along the perimeter of the Project, in addition to on-site detention basins. Perimeter landscaping will help to screen the proposed development from off-site views, and will help to buffer the site from existing residential uses located northeast of the site.
	Policy 2.10.6: Buildings should be designed with a plan for adequate signage. Signs should be highly compatible with the building and site design relative to size, color, material, and placement.	No inconsistency identified. Although plans for signage are not required or included as part of the Project, General Note 4 on Sheet A 0.1 of the Master Plot Plan requires that "All Signage and Graphics to Conform with Municipal Standards."
	Policy 2.10.7: On-site lighting should not cause nuisance levels of light or glare on adjacent properties.	No inconsistency identified. An analysis of potential impacts associated with Project lighting is provided in EIR Subsection 4.1, Aesthetics, which concludes that impacts associated with Project lighting would be less than significant.
	Policy 2.10.8: Lighting should improve the visual identification of structures. Within commercial areas, lighting should also help create a festive atmosphere by outlining buildings and encouraging nighttime use of areas by pedestrians.	No inconsistency identified. The proposed Project does not include any commercial retail land uses. Per General Not 3 on Sheet A 0.1 of the Master Plot Plan, all Project lighting elements would be required to comply with City standards.
	Policy 2.10.9: Fences and walls should incorporate landscape	No inconsistency identified. Landscaping is proposed along the perimeter of

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
	elements and changes in materials or texture to deter graffiti and add visual interest.	the Project and in front of the proposed screen walls. Landscaping would include a combination of shrubs and street trees, which would serve to discourage graffiti while adding visual interest to the street scene.
	Policy 2.10.10: Minimize the use and visibility of reverse frontage walls along streets and freeways by such treatments as landscaping, berming, and "side-on" cul-de-sacs.	No inconsistency identified. The proposed Project would not include any reverse frontage walls. Screening walls proposed around the Project's perimeter would incorporate both berms and landscape elements to help reduce the visual prominence of the walls from off-site viewing locations.
	Policy 2.10.11: Screen and buffer nonresidential projects from adjacent residential property and other sensitive land uses when necessary to mitigate noise, glare and other adverse effects on adjacent uses.	No inconsistency identified. The MVIAP includes policies intended to ensure an adequate buffer between existing residential uses located to the northeast of the Project site and industrial uses proposed within the MVIAP boundaries as part of the "300' Residential Buffer." The MVIAP 300' Residential Buffer requires the maintenance of a 300-foot buffer between industrial and residential land uses, although permitted uses may encroach into this buffer zone as necessary to maintain the integrity of industrial uses. The proposed Project would be consistent with the 300' Residential Buffer, and incorporates screen walls, berms, and landscaping to screen the existing residential uses from operational noise, glare, and other adverse effects of the Project. Please refer also to the discussion and analysis of potential visual and noise impacts on these existing residential uses in EIR Subsections 4.1 and 4.10, respectively.
	Policy 2.10.12: Screen parking areas from streets to the extent consistent with surveillance needs (e.g. mounding, landscaping, low profile walls, and/or grade separations).	No inconsistency identified. Parking areas within the Project would be screened by a series of berms, screen walls, and landscaping.
	Policy 2.10.13: Provide landscaping in automobile parking areas to reduce solar heat and glare.	No inconsistency identified. Landscaping is proposed along public parking areas and at the perimeter of areas to bee used for docking bays.
	Policy 2.10.14: Preserve or relocate existing mature trees and vegetation where practical. Mature trees shall be replaced when they cannot be preserved or relocated.	No inconsistency identified. The Project site does not contain any mature trees or other vegetation that could be feasibly replanted on site within landscaped areas.
	Objective 2.11: Maintain a water system that is capable of meeting the daily and peak demands of Moreno Valley residents and businesses, including the provision of adequate fire flows.	No inconsistency identified. EMWD prepared a Water Supply Assessment for the proposed Project (*Technical Appendix K1*), which demonstrates that sufficient water resources are available to serve the proposed Project. The Tentative Parcel Map depicts the size and location of proposed water lines, which have been designed pursuant to City standards and long-range planning

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
		efforts in the vicinity. Provision of adequate fire flows would be required pursuant to the City's standard conditions of approval. Also refer to EIR Subsection 4.12, Utilities and Service Systems.
	Policy 2.11.1: Permit new development only where and when adequate water services can be provided.	No inconsistency identified. EMWD prepared a Water Supply Assessment for the proposed Project (*Technical Appendix K1*), which demonstrates that sufficient water resources are available to serve the proposed Project.
	Objective 2.12: Maintain a wastewater collection, treatment, and disposal system that is capable of meeting the daily and peak demands of Moreno Valley residents and businesses.	No inconsistency identified. As indicated in EIR Subsection 4.12, Utilities and Service Systems, with construction of the wastewater conveyance facilities that are proposed as part of the Project, the Project would be adequately served by a wastewater collection, treatment, and disposal system. Project sewer demands also would not inhibit the ability of EMWD to serve existing and future residents or business in the local area.
	Policy 2.12.1: Prior to the approval of any new development application ensure that adequate septic or sewer service capacity exists or will be available in a timely manner.	No inconsistency identified. As concluded in EIR Subsection 4.12, Utilities and Service Systems, with improvements proposed as part of the Project, adequate sewer service capacity exists to serve the proposed development.
	Objective 2.13: Coordinate development activity with the provision of public infrastructure and services to eliminate possible gaps in service provision.	No inconsistency identified. As concluded in EIR Subsection 4.12, Utilities and Service Systems, adequate infrastructure and services exists to serve the proposed Project.
	Policy 2.13.1: Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.	No inconsistency identified. As concluded in EIR Subsection 4.12, Utilities and Service Systems, adequate infrastructure and services exists to serve the proposed Project.
	Policy 2.13.2: Unless otherwise approved by the City, public water, sewer, drainage and other backbone facilities needed for a project phase shall be constructed prior to or concurrent with initial development within that phase.	No inconsistency identified. All water, sewer, drainage, and other backbone facilities needed in support of the Project either already exist or would be constructed concurrent with initial development in each phase of Project construction.
	2.13.3 It shall be the ultimate responsibility of the sponsor of a development project to assure that all necessary infrastructure improvements (including system wide improvements) needed to support project development are available at the time that they are needed.	No inconsistency identified. All water, sewer, drainage, and other backbone facilities needed in support of the Project either already exist or would be constructed concurrent with initial development in each phase of Project construction.

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	Policy 2.13.4: Encourage installation of advanced technology infrastructure, including, but not limited to, infrastructure for high speed internet access and solar energy.	No inconsistency identified. This policy provides guidance to City staff and decision-makers for the provision of advanced technology infrastructure, and the proposed Project would not interfere with implementation of this policy.
	Objective 2.14: Establish and implement comprehensive solutions to the financing of public facilities that adequately distribute costs based on the level of benefit received and the timing of development.	No inconsistency identified. The Project would be required to pay fees as part of the City's DIF fees (City Ordinance No. 695), which have been established for the purpose of ensuring financing for necessary public facilities.
	Policy 2.14.3: Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.	No inconsistency identified. The proposed Project has been reviewed for its impacts on public services and facilities, including roadways, water, sewer, fire, police, parks, and libraries. The proposed Project would be adequately served by these services and facilities in accordance with the General Plan service standards. Also refer to individual analyses of these services and facilities in EIR Subsections 4.11 and 4.12 and Section 5.0.
	Objective 2.16: Maintain local library facilities and reserves in accordance with the following minimum standards: 0.5 square feet of library space and 1.2 volumes per capita.	No inconsistency identified. The proposed Project would be required to pay DIF fees in accordance with City Ordinance No. 695, which would provide funds for library facilities to help the City meet this objective.
Parks, Recreation, and Open Space Element	Goal 4.2: To retain an open space system that will conserve natural resources, preserve scenic beauty, promote a healthful atmosphere, provide space for outdoor recreation, and protect the public safety.	No inconsistency identified. The Project site is not designated for preservation as open space, and does not contain any natural resources.
	Objective 4.1: Retain agricultural open space as long as agricultural activities can be economically conducted, and are desired by agricultural interests, and provide for an orderly transition of agricultural lands to other urban and rural uses.	No inconsistency identified. The Project site does not contain important agricultural resources. The proposed Project seeks to implement the MVIAP, which designates the site for light industrial uses.
	Objective 4.2: Provide safe, affordable and accessible recreation facilities and programs to meet the current and future needs of Moreno Valley's various age and interest groups and promote the provision of private recreational facilities.	No inconsistency identified. The Project site is not designated for recreational use by the General Plan or MVIAP, and would not generate a new demand for recreational facilities within the City of Moreno Valley.
	Policy 4.2.17: Require new development to contribute to the park needs of the City.	No inconsistency identified. The City has enforced this policy through Ordinance No. 581, which requires parkland dedication or in-lieu fees in association with new residential development. As a light industrial development, the Project is not subject to parkland fees or dedication pursuant to Ordinance No. 581. Accordingly, this policy is not applicable to the

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		proposed Project.
	Objective 4.3: Develop a hierarchical system of trails which contribute to environmental quality and energy conservation by providing alternatives to motorized vehicular travel and opportunities for recreational equestrian riding, bicycle riding, and hiking, and that connects with major regional trail systems.	No inconsistency identified. Bikeways are designated by the General Plan for Krameria, Iris, and Heacock adjacent to the Project site. The Project design complies with all City roadway standards for the provision of required bike lanes, as well as sidewalk and sidewalk easements.
	Policy 4.3.1: The City's network of multiuse trails, including regional trails, community trails, and local feeder trails, shall (1) be integrated with recreational, residential and commercial areas, schools and equestrian centers; (2) provide access to community resources and facilities, and (3) connect urban populations with passage to hillsides, ridgelines, and other scenic areas.	No inconsistency identified. Sidewalks and bike lanes are provided as part of the Project as required by the City of Moreno Valley.
	Policy 4.3.3: All new development approvals shall be contingent on trail right-of-way dedication and improvement in accordance with the Master Plan of Trails (Figure 4-5).	No inconsistency identified. Bikeways are designated by the General Plan for Krameria, Iris, and Heacock adjacent to the Project site. The Project design complies with all City roadway standards for the provision of required bike lanes. Sidewalks also are provided as part of the Project as required by the City of Moreno Valley.
	Policy 4.3.4: In conjunction with all development review, the City shall consider multiuse trail access and traditional travel routes through the property.	No inconsistency identified. The City of Moreno Valley has reviewed the proposed Project's transportation design
	Policy 4.3.5: In conjunction with the review and approval of nonresidential developments, the City should consider the use of multiuse trail amenities such as hitching posts, benches, rest areas, and drinking facilities.	No inconsistency identified. The Project is an industrial business park and no multi-use trails are designated to traverse within or parallel to the Project site.
	Policy 4.3.7: Trail design and construction should take into consideration the safety and convenience of all trail users as the primary concern.	No inconsistency identified. Bikeways are designated by the General Plan for Krameria, Iris, and Heacock adjacent to the Project site. The Project design complies with all City roadway standards for the provision of required bike lanes and sidewalks.
	Policy 4.3.9: Unless otherwise specified due to fire department requirements, access or as established by a specific plan, city trails along roadways shall be ten (10) feet wide and shall be constructed with decomposed granite or equal material and	No inconsistency identified. There are no trail routes identified on site, with exception of the Class II and III bikeways along Iris Avenue, Heacock Street, and Krameria Avenue. Bikeways are not subject to the 10-foot width standard;

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	shall provide appropriate fencing or other devices where needed to delineate trails from vehicular rights-of-way.	accordingly, this policy is not applicable to the proposed Project.
	Policy 4.3.10: Where firefighting access is required, trails shall be 20' wide to meet the needs of the Fire Department and its equipment. Fire Department requirements shall be met in all conditions where access is required.	No inconsistency identified. There are no trail routes identified on site, with exception of the Class II and III bikeways along Iris Avenue, Heacock Street, and Krameria Avenue. Bikeways are not subject to the 20-foot width standard; accordingly, this policy is not applicable to the proposed Project.
	Policy 4.3.14: Where feasible, use drainage courses, utility rights-of-way and other such opportunities to incorporate trail and open space elements in the design of major development projects.	No inconsistency identified. This policy provides guidance to City staff in the development of trails and open space elements within drainage courses and utility corridors. There are no suitable utility corridors or drainages on site that would be available for use as trails or open space.
Circulation Element	Goal 5.1: Develop a safe, efficient, environmentally and financially sound, integrated vehicular circulation system consistent with the City General Plan Circulation Element Map, Figure 9-1, which provides access to development and supports mobility requirements of the system's users.	No inconsistency identified. The proposed Project would implement improvements to surrounding roadways in a manner generally consistent with Figure 9-1. However, the Project does propose to realign a portion of Krameria Avenue as part of PA11-0001 (General Plan Amendment) and PA11-004 (MVIAP Amendment). A Project-specific traffic impact analysis has been prepared (refer to Subsection 4.11, Traffic and Circulation), which shows that the proposed realignment of Krameria Avenue would not result in any significant impacts to the surrounding circulation network.
	Goal 5.2: Maintain safe and adequate pedestrian, bicycle, and public transportation systems to provide alternatives to single occupant vehicular travel and to support planned land uses.	No inconsistency identified. Bikeways are designated by the General Plan for Krameria, Iris, and Heacock adjacent to the Project site. The Project design complies with all City roadway standards for the provision of required bike lanes and sidewalks.
	Objective 5.1: Create a safe, efficient and neighborhood friendly street system.	No inconsistency identified. The proposed Project would implement improvements to surrounding roadways in a manner generally consistent with Figure 9-1. The Project proposes to realign and reclassify a portion of Krameria Avenue as part of PA11-0001 (General Plan Amendment) and PA11-004 (MVIAP Amendment) to improve the planned system by providing 90-degree intersections. A Project-specific traffic impact analysis has been prepared (*Technical Appendix J*), which shows that the proposed realignment of Krameria Avenue would not result in any significant impacts to the surrounding circulation network.
	Policy 5.1.1: Plan access and circulation of each development	No inconsistency identified. The proposed Project has been design to

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	project to accommodate vehicles (including emergency vehicles and trash trucks), pedestrians, and bicycles.	accommodate vehicles (including emergency vehicles and trash trucks), and would also afford access to pedestrians and bicycles via sidewalks and bikeways provided along adjacent roadways.
	Policy 5.1.2: Plan the circulation system to reduce conflicts between vehicular, pedestrian and bicycle traffic.	No inconsistency identified. Field observations documented in *Technical Appendix J* indicate nominal pedestrian and bicycle activity within the study area. The proposed Project has been design to accommodate pedestrians and bicycles via sidewalks and bikeways provided along adjacent roadways. Trucks accessing the Project are required to use approved truck routes.
	Policy 5.1.3: Require adequate off-street parking for all developments.	No inconsistency identified. As shown on Sheet A.01 of the Master Plot Plan, the proposed Project would provide more parking spaces than required by the City of Moreno Valley Municipal Code. The proposed Project would therefore provide adequate off-street parking.
	Policy 5.1.4: Driveway placement shall be designed for safety and to enhance circulation wherever possible.	No inconsistency identified. All driveways on site have been designed per City Standard 118C and would not pose any safety issues in the local area.
	Policy 5.1.5: Incorporate American Disability Act (ADA) and Title 24 requirements in roadway improvements as appropriate.	No inconsistency identified. All roadway and streetscape improvements proposed by the Project would be ADA compliant.
	Policy 5.1.6: Design new developments to provide opportunity for access and circulation to future adjacent developments.	No inconsistency identified. The Project site is abutted to the north by Iris Avenue and to the west by Heacock Street. Cosmos Street is proposed to be constructed along the eastern boundary and Krameria Avenue is proposed to be constructed through the Project site, connecting Cosmos Street and Heacock Street. There would be ample access to adjacent parcels.
	Policy 5.2.2: Feed short local streets into collectors.	No inconsistency identified. The Project does not propose the development of any local streets, although several Industrial Collectors (i.e., Krameria Avenue and Cosmos Street) are proposed that would provide access to nearby Arterials (i.e., Heacock Street and Iris Avenue).
	Policy 5.2.3: Encourage the incorporation of traffic calming design into local and collector streets to promote safe vehicle speeds.	No inconsistency identified. The design of realigned Krameria Avenue and Cosmos Street through the site encourages safe vehicle speeds. Cosmos Street is designed as a cul-de-sac, while Krameria Avenue through the site is designed with two 90-degree turns that would serve to lower traffic speeds.
	Policy 5.2.4: Design new subdivisions to minimize the	No inconsistency identified. The proposed Project has been designed to

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	disruptive impact of motor vehicles on local streets. Long, broad and linear streets should be avoided. Residential streets should be no wider than 40 feet, and should have an uninterrupted length of less than one half mile. Curvilinear streets and cul-de- sacs are preferred. Streets within the subdivision should be designed to facilitate access to residences and to discourage through traffic.	encourage Project-related traffic along Heacock Street, an Arterial roadway, while also limiting access to local streets. Residential uses are not proposed as part of the Project.
	Objective 5.3: Maintain Level of Service (LOS) "C" on roadway links, wherever possible, and LOS "D" in the vicinity of SR 60 and high employment centers. Figure 9-2 depicts the LOS standards that are applicable to all segments of the General Plan Circulation Element Map.	No inconsistency identified. The analysis provided in EIR Subsection 4.11 indicates that, following mitigation, all roadway links serving the Project would achieve an LOS "D" or better under Project buildout conditions.
	Policy 5.3.1: Obtain right-of-way and construct roadways in accordance with the designations shown on the General Plan Circulation Element Map and the City street improvement standards.	No inconsistency identified. The proposed Project would construct improvements to Heacock Street and Iris Avenue consistent with Arterial roadway standards. Krameria Avenue would be developed as an Industrial Collector, although this roadway would be realigned and reclassified as part of PA11-0001 (General Plan Amendment) and PA11-004 (MVIAP Amendment). Analysis of the roadway reclassification is provided in Subsection 4.11, which concludes that all affected roadway segments and intersections would operate at acceptable levels of service.
	Policy 5.3.2: Wherever feasible, promote the development of roadways in accordance with the City standard roadway cross-sections, as shown in Figure 9-3. Cross-sections range from two-lane undivided roadways to 8- lane divided facilities.	No inconsistency identified. All roadways proposed as part of the Project would be developed in accordance with City standards and General Plan Figure 9-3.
	Policy 5.3.6: Where new developments would increase traffic flows beyond the LOS C (or LOS D, where applicable), require appropriate and feasible mitigation measures as a condition of approval. Such measures may include extra right-of-way and improvements to accommodate left-turn and right-turn lanes at intersections, or other improvements.	No inconsistency identified. Appropriate mitigation measures are provided in EIR Subsection 4.11 to ensure that all roadway segments and intersections directly impacted by the proposed Project are mitigated to a LOS D under build out conditions.
	Policy 5.5.1: Space Collectors between higher classification roadways within development areas at appropriate one-quarter mile intervals.	No inconsistency identified. The Project proposes only one intersection of a Collector Roadway (Krameria Avenue, Industrial Collector) with an Arterial Roadway (Heacock Street). The intersection of Krameria Avenue at Heacock Street would be located approximately 1,800 feet south of the intersection of

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		Heacock Street and Iris Avenue, which exceeds one-quarter mile. The proposed intersection of Krameria Avenue at Heacock Street also would be located more then 0.5 miles north of the nearest intersection to the south at Mariposa Avenue.
	Policy 5.5.2: Provide dedicated left-turn lanes at all major intersections on minor arterials and higher classification roadways.	No inconsistency identified. As indicated in EIR Subsection 4.11, all study area intersections on minor arterials and higher classification roadways provide dedicated left-turn lanes where appropriate.
	Policy 5.5.3: Prohibit points of access from conflicting with other existing or planned access points. Require points of access to roadways to be separated sufficiently to maintain capacity, efficiency, and safety of the traffic flow.	No inconsistency identified. The Project's traffic study (*Technical Appendix J*) includes recommendations for driveway locations and required improvements, which would be enforced as part of the City's standard conditions of approval.
	Policy 5.5.4: Wherever possible, minimize the frequency of access points along streets by the consolidation of access points between adjacent properties on all circulation element streets, excluding collectors.	No inconsistency identified. The Project proposes a total of five driveways along Heacock Street and Iris Avenue, which are the only roadways abutting the site that are not collector roadways. These five driveways are the minimum number necessary to serve the proposed Project.
	Policy 5.5.5: Design streets and intersections in accordance with the Moreno Valley Municipal Code.	No inconsistency identified. All streets and intersections proposed as part of the Project have been designed in accordance with the Moreno Valley Municipal Code.
	Policy 5.5.6: Consider the overall safety, efficiency and capacity of street designs as more important than the location of on-street parking.	No inconsistency identified. Roadways proposed as part of the Project have been designed to promote safety, efficiency, and capacity. The Project provides more than the number of required off-street parking spaces for vehicles, and accommodates adequate parking for trucks.
	Policy 5.5.7: For developments fronting both sides of a street, require that streets be constructed to full width. Where new developments front only one side of a street, require that streets be constructed to half width plus an additional 12-foot lane for opposing traffic, whenever possible. Additional width may be needed for medians or left and/or right turn lanes.	No inconsistency identified. The Project abuts one side of Heacock Street and Iris Avenue, both of which are constructed as half-width roadways under existing conditions. Both of these roadways would be improved to their full-width sections as part of the Project, with the exception of the Heacock Street bridge over the Perris Valley Channel which is not a part of the proposed Project. The Project abuts one side of the north-south portion of Krameria Avenue, and abuts both sides of the east-west portion of Krameria Avenue. In accordance with this policy, the north-south segment of Krameria would be improved to its ultimate half-width standard, while the east-west portion of this roadway would be improved to its full-width standard. Proposed improvements along (realigned) Krameria Avenue and Cosmos will include an additional 12-

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		foot lane for opposing traffic.
	Policy 5.5.8: Whenever possible, require private and public land developments to provide on-site and off-site improvements necessary to mitigate any development-generated circulation impacts. A review of each proposed land development project shall be undertaken to identify project impacts to the circulation system. The City may require developers to provide traffic impact studies prepared by qualified professionals to identify the impacts of a development.	No inconsistency identified. A traffic study has been prepared for the Project and is included as *Technical Appendix J*. This study was reviewed by the City of Moreno Valley and all feasible mitigation measures to reduce the Project's significant traffic impacts have been imposed as Project design requirements or mitigation measures.
	Policy 5.5.9: Design curves and grades to permit safe movement of vehicular traffic per applicable Caltrans and Moreno Valley standards.	No inconsistency identified. All curves and grades proposed by the Project meet applicable City standards.
	Policy 5.5.10: Provide adequate sight distances for safe vehicular movement at all intersections and driveways.	No inconsistency identified. All driveways and intersections proposed by the Project provide for adequate sight distance in accordance with City standards.
	Policy 5.5.11: Implement National Pollutant Discharge Elimination System Best Management Practices relating to construction of roadways to control runoff contamination from affecting water resources.	No inconsistency identified. As indicated in EIR Subsection 4.8, Hydrology and Water Quality, the Project would be required to obtain a NPDES permit, and would be required to implement BMPs to control runoff contamination.
	Policy 5.6.1: Ensure that City arterials that provide access to and from March Inland Port are properly designed to accommodate projected traffic volumes, including truck traffic.	No inconsistency identified. The Project's proposed improvements to Heacock Street are in accordance with City design standards for Arterial roadways.
	Policy 5.6.2: Ensure that traffic routes to March Inland Port are planned to minimize impacts to City residential communities.	No inconsistency identified. The Project would improve Heacock Street along the Project frontage to its full-width standard as an Arterial, with the exception of the bridge over the Perris Valley Channel, which is not a part of the proposed Project. Improvements to Heacock Street would help minimize impacts to City residential communities by providing for a high-capacity thoroughfare that is part of the City's truck route.
	Policy 5.8.3: Encourage public transportation opportunities that address the particular needs of transit dependent individuals in the City such as senior citizens, the disabled and low-income residents.	No inconsistency identified. This policy provides guidance to City staff and decision-makers, and is not applicable to the proposed Project. As discussed in EIR Subsection 4.11, the Project study area is currently served by the Riverside Transit Agency (RTA). Although transit service is not currently available

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		adjacent to the Project site, the Project design has set aside areas for future bus turnouts.
	Policy 5.8.4: Ensure that all new developments make adequate provision for bus stops and turnout areas for both public transit and school bus service.	No inconsistency identified. As discussed in EIR Subsection 4.11, the Project study area is currently served by the Riverside Transit Agency (RTA) with bus services along Cactus Avenue, Indian Street, John F. Kennedy Drive, Iris Avenue, and Krameria Avenue through various routes. Although transit service is not currently available adjacent to the Project site, the Project design has set aside areas for future bus turnouts.
	Policy 5.8.5: Continue on-going coordination with transit authorities toward the expansion of transit facilities into newly developed areas.	No inconsistency identified. This policy provides guidance to City staff and decision-makers, and is not applicable to the proposed Project. As discussed in EIR Subsection 4.11, the Project study area is currently served by the Riverside Transit Agency (RTA). Although transit service is not currently available adjacent to the Project site, the Project design has set aside areas for future bus turnouts.
	Policy 5.9.1: Encourage walking as an alternative to single occupancy vehicle travel, and help ensure the safety of the pedestrian as follows: *(a) All new developments shall provide sidewalks in conformance with the City's streets cross-section standards, and applicable policies for designated urban and rural areas.* *(b) The City shall actively pursue funding for the infill of sidewalks in developed areas. The highest priority shall be to provide sidewalks on designated school routes.*	No inconsistency identified. All roadway improvements proposed as part of the Project would include five- or six-foot wide sidewalks or sidewalk easements, in accordance with the City's cross-section standards. The portion of this policy related to infill of sidewalks is not applicable to the proposed Project.
	Policy 5.9.2: Walkways shall be designed to minimize conflicts between vehicles and pedestrians.	No inconsistency identified. Sidewalks or sidewalk easements would be provided along all access roadways abutting the site, and pedestrian walkways internal to the development have been designed to minimize conflicts between pedestrians and vehicles.
	Policy 5.9.3: Where appropriate, provide amenities such as, but not limited to, enhanced paving, seating, and landscaping to enhance the pedestrian experience.	No inconsistency identified. The Project site and surrounding area is not identified by the City's General Plan or MVIAP as an area conducive to pedestrian activity, as the Project does not involve residential development. The

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		provision of these amenities is not appropriate for the Project.
	Policy 5.9.4: Require the provision of convenient and safe pedestrian access to buildings from the public sidewalk.	No inconsistency identified. As shown on the Project's proposed Master Plot Plan, pedestrian access from public sidewalks to on-site buildings has been accommodated via internal pedestrian walkways.
	Objective 5.10: Encourage bicycling as an alternative to single occupant vehicle travel for the purpose of reducing fuel consumption, traffic congestion, and air pollution. The Moreno Bikeway Plan is shown in Figure 9-4.	No inconsistency identified. The Project design complies with all City roadway standards for the provision of required bike lanes and sidewalks. Additionally, bike racks would be provided at each proposed building.
	Policy 5.10.1: Bikeways shall link residential neighborhood areas with parks, employment centers, civic and commercial areas, and schools.	No inconsistency identified. Bikeways are designated by the General Plan for Krameria, Iris, and Heacock adjacent to the Project site. The Project design complies with all City roadway standards for the provision of required bike lanes.
	Policy 5.10.2: Integrate bikeways, consistent with the Bikeway Plan, with the circulation system and maintain Class II and III bikeways as part of the City's street system.	No inconsistency identified. Bikeways are designated by the General Plan for Krameria, Iris, and Heacock adjacent to the Project site. The Project design complies with all City roadway standards for the provision of required bike lanes.
	Policy 5.10.4: Link local bikeways with existing and planned regional bikeways.	No inconsistency identified. Bikeways are designated by the General Plan for Krameria, Iris, and Heacock adjacent to the Project site. The Project design complies with all City roadway standards for the provision of required bike lanes. Their linkage to the City's larger bikeway system is beyond the scope of this Project.
	Objective 5.11: Eliminate obstructions that impede safe movement of vehicles, bicyclists, and pedestrians.	No inconsistency identified. The proposed Project would not introduce any obstructions that impede safe movement of vehicles, bicyclists, or pedestrians.
	5.11.1 Landscaping adjacent to City streets, sidewalks and bikeways shall be designed, installed and maintained so as not to physically or visually impede public use of these facilities. *(a) The removal or relocation of mature trees, street trees and landscaping may be necessary to construct safe pedestrian, bicycle and street facilities.* *(b) New landscaping, especially street trees shall be planted in such a manner to avoid overhang into streets, obstruction*	No inconsistency identified. Landscaping proposed as part of the Project would not obstruct pedestrian, bicycle, street facilities, traffic control devices, or site distances, nor would it create any other safety hazards.

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	of traffic control devices or sight distances, or creation of other safety hazards.	
	5.11.2 Driveways shall be designed to avoid conflicts with pedestrian and bicycle travel.	No inconsistency identified. Driveways proposed as part of the Project would not obstruct pedestrian or bicycle travel.
Safety Element	Goal 6.1: To achieve acceptable levels of protection from natural and man-made hazards to life, health, and property.	No inconsistency identified. As indicated in EIR Section 4.7, *Hazards and Hazardous Materials*, impacts from natural or man-made hazards would either not occur, or would be reduced to a level below significant with incorporation of the Mitigation Measures identified in EIR Section 4.6.7.
	Goal 6.2: To have emergency services which are adequate to meet minor emergency and major catastrophic situations.	No inconsistency identified. The Project site is adequately served by police and fire protection services, and the Project applicant would be required to pay Development Impact Fees (DIF) pursuant to City Ordinance 695, which would provide funding for police and fire protection facilities.
	Objective 6.1: Minimize the potential for loss of life and protect residents, workers, and visitors to the City from physical injury and property damage due to seismic ground shaking and secondary effects.	No inconsistency identified. As indicated in EIR Subsection 4.5, the Project has been designed so as to minimize the potential for loss of life and property damage associated with seismic activity.
	Policy 6.1.1: Reduce fault rupture and liquefaction hazards through the identification and recognition of potentially hazardous conditions and areas as they relate to the San Jacinto fault zone and the high and very high liquefaction hazard zones. During the review of future development projects, the City shall require geologic studies and mitigation for fault rupture hazards in accordance with the Alquist-Priolo Special Study Zones Act. Additionally, future geotechnical studies shall contain calculations for seismic settlement on all alluvial sites identified as having high or very high liquefaction potential. Should the calculations show a potential for liquefaction, appropriate mitigation shall be identified and implemented.	No inconsistency identified. A site-specific geotechnical report has been prepared for the Project site and is included as *Technical Appendix E*. As concluded in the geotechnical report, the potential for liquefaction hazards on the site is deemed low due to the depth of groundwater in the area (approximately 44 feet). The Project site is located outside of Alquist Priolo Special Studies Zone and the potential for damage due to direct fault rupture is considered unlikely. Future geotechnical evaluations also will be required in conjunction with grading and building permits, which would further ensure that the Project is not subject to adverse effects associated with seismic hazards.
	Policy 6.1.2: Require all new developments, existing critical and essential facilities and structures to comply with the most recent Uniform Building Code seismic design standards.	No inconsistency identified. The proposed Project has been designed in accordance with the applicable California Green Building Standards Code provisions for seismic design standards.

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	Objective 6.2: Minimize the potential for loss of life and protect residents, workers, and visitors to the City from physical injury and property damage, and to minimize nuisances due to flooding.	No inconsistency identified. The proposed Project has been designed such that building pads would be located above the existing flood elevations, thereby ensuring that life and property would not be endangered during flood events.
	Policy 6.2.1: Permit only that development in 100- year floodplain that represents an acceptable use of the land in relation to the hazards involved and the costs of providing flood control facilities. Locate critical facilities, such as hospitals, fire stations, police stations, public administration buildings, and schools outside of flood hazard areas.	No inconsistency identified. As discussed in EIR Subsection 4.8, Hydrology and Water Quality, the proposed Project has been designed such that building pads would be located above the existing flood elevations, thereby ensuring that life and property would not be endangered during flood events.
	Policy 6.2.3: Maximize pervious areas in order to reduce increases in downstream runoff resulting from new development.	No inconsistency identified. The Project has been designed to incorporate detention basins that would ensure that runoff leaving the site under developed conditions approximates what occurs under existing conditions. Refer to EIR Subsection 4.8, Hydrology and Water Quality.
	Policy 6.2.4: Design, construct and maintain street and storm drain flood control systems to accommodate 10 year and 100 year storm flows respectively.	No inconsistency identified. The proposed Project has been designed such that building pads would be located above the existing flood elevations, and proposed drainage facilities have been designed to accommodate the 10 year and 100 year storm flows. Refer to EIR Subsection 4.8, Hydrology and Water Quality.
	Policy 6.2.5: The storm drain system shall conform to Riverside County Flood Control and Water Conservation District master drainage plans and the requirements of the Federal Emergency Management Agency.	No inconsistency identified. Storm drains proposed as part of the Project conform to the Riverside County Flood Control and Water Conservation District's master drainage plan and applicable FEMA requirements. Refer to EIR Subsection 4.8, Hydrology and Water Quality.
	Objective 6.3: Provide noise compatible land use relationships by establishing noise standards utilized for design and siting purposes.	No inconsistency identified. This objective provides guidance to City staff and decision-makers in formulating policies related to noise generating land uses.
	Policy 6.3.3: Where the future noise environment is likely to exceed 70 CNEL or exceed 70 CNEL due to overflights from the joint-use airport at March, new buildings containing uses that are not addressed under Policy 6.3.1 shall require insulation to achieve interior noise levels recommended in the March Air Reserve Base Air Installation Compatible Use Zone Report.	No inconsistency identified. Refer to EIR Subsection 4.10, Noise, which discloses that the Project site is not subject to aircraft noise levels over 70 CNEL.
	Policy 6.3.6: Building shall be limited in areas of sensitive	No inconsistencies identified. The only sensitive receptors surrounding the

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
	receptors.	Project site that could be impacted the Project are the residential neighborhoods located to the northeast and east of the site. Other approved industrial projects (Indian Business Park, PA07-0079, PA07-0080, PA07-121, P07-0093, and PA08-0018) and Moreno Valley Industrial Park (PA07-0035, PA07-0039, and PA08-0021), would be constructed closer to these residential areas than the proposed Project. There would be a significant and unmitigated impact associated with the Project's short-term construction noise during the period of time that the Project is under construction. The Project site is designated by the General Plan and the MVIAP for development and was therefore considered as part of the General Plan and evaluated by the General Plan EIR (Moreno Valley 2006b).
	Objective 6.4: Review noise issues during the planning process and require noise attenuation measures to minimize acoustic impacts to existing and future surrounding land uses.	No inconsistencies identified. An analysis of potential impacts associated with noise is provided in EIR Subsection 4.10, which concludes that there would be no long-term significant noise impacts associated with the Project as proposed. Regardless, the Project has been designed to include 9' to 14' walls around truck parking and loading areas and would install parapets on building roofs to block rooftop air conditioning units.
	Policy 6.4.1: Site, landscape and architectural design features shall be encouraged to mitigate noise impacts for new developments, with a preference for noise barriers that avoid freeway sound barrier walls.	No inconsistencies identified. The Project site is not located near a freeway and no freeway sound barrier walls are proposed. Although there would be no long-term significant noise impacts associated with the Project, the Project has been designed to include 9' to 14' walls around truck parking and loading areas screened by landscaping and would install parapets on building roofs to block rooftop air conditioning units.
	Objective 6.5: Minimize noise impacts from significant noise generators such as, but not limited to, motor vehicles, trains, aircraft, commercial, industrial, construction, and other activities.	No inconsistencies identified. An analysis of potential impacts associated with noise is provided in EIR Subsection 4.10, which concludes that there would be no long-term significant noise impacts associated with the Project as proposed, including from stationary sources.
	Policy 6.5.1: New commercial and industrial activities (including the placement of mechanical equipment) shall be evaluated and designed to mitigate noise impacts on adjacent uses.	No inconsistencies identified. An analysis of potential impacts associated with noise is provided in EIR Subsection 4.10, which concludes that there would be no long-term significant noise impacts associated with the Project as proposed, including from stationary sources. There would be a significant and unmitigated impact associated with the Project's short-term construction noise during the period of time that the Project is under construction. The Project site

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
		is designated by the General Plan and the MVIAP for development and was therefore considered as part of the General Plan and evaluated by the General Plan EIR (Moreno Valley 2006b). Construction noise would occur with any type of development on the Project site and is not associated with the Project's proposed land use.
	Policy 6.5.2: Construction activities shall be operated in a manner that limits noise impacts on surrounding uses.	Project construction activities would expose nearby residential properties to noise levels that exceed the City's Noise Ordinance standard. The mitigation measures given in EIR Subsection 4.10 would reduce construction-related noise impacts to surrounding areas to the greatest extent feasible.
	Objective 6.6: Promote land use patterns that reduce daily automotive trips and reduce trip distance for work, shopping, school, and recreation.	No inconsistency identified. The proposed Project is consistent with the land use designations applied to the property by the General Plan and MVIAP. The site is located along Heacock Street, which is an Arterial roadway that affords direct access to local and regional transportation facilities that access other land uses.
	Objective 6.7: Reduce mobile and stationary source air pollutant emissions.	No inconsistency identified. EIR Subsection 4.2, Air Quality, includes a detailed analysis of Project-related air quality emissions, and imposes mitigation measures to reduce these emissions to the greatest feasible extent.
	Policy 6.7.2: Encourage the financing and construction of park-and-ride facilities.	No inconsistency identified. No park-and-ride facilities are designated for the Project site.
	Policy 6.7.4: Locate heavy industrial and extraction facilities away from residential areas and sensitive receptors.	No inconsistency identified. The proposed Project involves the development of an industrial business park that does not include heavy industrial uses or extraction-related land uses. Accordingly, this policy is not applicable to the proposed Project.
	Policy 6.7.5: Require grading activities to comply with South Coast Air Quality Management District's Rule 403 regarding the control of fugitive dust.	No inconsistency identified. The proposed Project would be required to comply with SCAQMD's Rule 403 regarding fugitive dust as specified in Subsection 4.2, Air Quality.
	Policy 6.7.6: Require building construction to comply with the energy conservation requirements of Title 24 of the California Administrative Code.	No inconsistency identified. The proposed Project would be required to comply with Title 24 as specified in Subsection 4.6, Greenhouse Gas Emissions.
	Objective 6.8: As feasible given budget constrains, strive to maintain a police force with a ratio of one sworn officer for each	No inconsistency identified. This policy provides guidance to City staff and decision-makers, and the Project would be required to contribute DIF fees that

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
	1,000 residents.	are applied in part to police protection services.
	Objective 6.9: Reduce the risk and fear of crime through physical planning strategies that maximize surveillance opportunities and minimize opportunities for crime found in the present and future built environment, and by creating and maintaining a high level of community awareness and support of crime prevention.	No inconsistency identified. The proposed Project incorporates gated access and would feature security lighting, which would reduce the risk of crime on site. The remaining portions of this policy are not applicable to the proposed Project.
	Policy 6.9.2: Require well-lighted entrances, walkways and parking lots, street lighting in all commercial, industrial areas and multiple-family residential areas to facilitate nighttime surveillance and discourage crime.	No inconsistency identified. The Project includes decorative lighting elements at all entries, in addition to lighting along walkways, parking lots, and along abutting streets.
	Policy 6.9.3: Incorporate "defensible space" concepts into the design of dwellings and nonresidential structures, including, but not limited to configuration of lots, buildings, fences, walls and other features that facilitate surveillance and reinforce a sense of territorial control.	No inconsistency identified. Areas not proposed to be gated would be visible from adjacent roadways, including Krameria Avenue, Heacock Street, and Iris Avenue.
	Objective 6.10: Protect life and property from the potential short-term and long-term deleterious effects of the necessary transportation, use, storage treatment and disposal and hazardous materials and waste within the City of Moreno Valley.	No inconsistency identified. EIR Subsection 4.7, Hazards and Hazardous Materials, includes a detailed analysis of potential impacts from the storage, use, and disposal of hazardous materials associated with Project construction and long-term operation, and imposes mitigation measures to reduce potential impacts to a level below significant.
	Policy 6.10.1: Require all land use applications and approvals to be consistent with the siting criteria and other applicable provisions of the adopted Hazardous Waste Management Plan, which is also incorporated into and as part of the General Plan.	No inconsistency identified. The proposed Project would be consistent with the adopted Hazardous Waste Management Plan. Refer to EIR Subsection 4.7, Hazards and Hazardous Materials.
	Policy 6.10.2: Manage the generation, collection, storage, processing, treatment, transport and disposal of hazardous waste in accordance with provisions of the City of Moreno Valley's adopted Hazardous Waste Management Plan, which is also incorporated into and as part of the General Plan.	No inconsistency identified. The proposed Project is required to comply with all applicable local, state, and federal hazardous waste requirements and would be consistent with the adopted Hazardous Waste Management Plan. Refer to EIR Subsection 4.7, Hazards and Hazardous Materials.
	Policy 6.11.5: Minimize uncontrolled fires through support of weed abatement programs.	No inconsistency identified. The Project site is located in an urban area that is not subject to wildland fire hazards, and no fuel modification zones (“weed

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
		abatement") are required.
	Objective 6.14: Maintain the capacity to respond rapidly to emergency situations.	No inconsistency identified. The Project site would be adequately served by police and fire protection services (refer also to EIR Subsection 4.7).
	Policy 6.14.1: Locate fire stations in accordance with the Fire Station Master Plan as shown in Figure 6-1. The exact location of each fire station may be modified based on availability of land and other factors.	No inconsistency identified. The Project site is not identified for development with a fire station on Figure 6-1, and the area already is adequately served by fire protection facilities (refer also to EIR Subsection 4.7).
	Policy 6.14.2: Relate the timing of fire station construction to the rise of service demand in surrounding areas.	No inconsistency identified. The Project area already is adequately served by fire protection facilities (refer also to EIR Subsection 4.7).
	Objective 6.15: Ensure that property in or adjacent to wildland areas is reasonably protected from wildland fire hazard, consistent with the maintenance of a viable natural ecology.	No inconsistency identified. The proposed Project is not located in an area subject to wildland fire hazards; therefore, this objective and associated policies are not applicable to the proposed Project.
	Objective 6.16: Ensure that uses within urbanized areas are planned and designed consistent with accepted safety.	No inconsistency identified. The proposed Project was reviewed by the City Police and Fire Departments, both of which conclude that the Project adequately addresses public safety through design.
	Policy 6.16.2: Encourage the systematic mitigation of existing fire hazards related to land urban development or patterns of urban development as they are identified and as resources permit.	No inconsistency identified. As concluded in EIR Subsection 4.7, the proposed Project site is not subject to wildland fire hazards.
	Policy 6.16.3: Ensure that adequate emergency ingress and egress is provided for each development.	No inconsistency identified. Roadways planned as part of the Project accommodate adequate emergency ingress and egress.
	Policy 6.16.4: Within the safety zones (e.g. Air Crash Hazard Zones and Clear Zones) shown in Figure 6-5, residential uses shall not be permitted, and business uses shall be restricted to low intensity uses as defined in the March Air Reserve Base Air Installation Compatible Use Zone Report, as amended from time to time.	No inconsistency identified. As concluded in EIR Subsection 4.7, the proposed Project site is consistent with the March Air Reserve Base Air Installation Compatible Use Zone Report.
Conservation Element	Goal 7.1: To achieve the wise use of natural resources within the City of Moreno Valley, its sphere of influence and planning area.	No inconsistency identified. The proposed Project site is not identified as containing any substantial natural resource deposits.
	Objective 7.1: Minimize erosion problems resulting from	No inconsistency identified. As concluded in EIR Subsection 4.8, Hydrology

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
	development activities.	and Water Quality, the proposed Project would minimize erosion during construction to the maximum feasible extent.
	Policy 7.1.1: Require that grading plans include appropriate and feasible measures to minimize erosion, sedimentation, wind erosion and fugitive dust.	No inconsistency identified. As concluded in EIR Subsections 4.2, Air Quality, and 4.8, Hydrology and Water Quality, the proposed Project incorporates measures intended to minimize erosion, sedimentation, wind erosion, and fugitive dust to the maximum feasible extent.
	Policy 7.1.2: Circulation patterns within newly developing portions of Moreno Valley, particularly in hillside areas, should follow natural contours to minimize grading.	No inconsistency identified. The Project vicinity is relatively flat and does not comprise a "hillside area;" accordingly, this policy is not applicable to the proposed Project.
	Objective 7.2: Maintain surface water quality and the supply and quality of groundwater.	No inconsistency identified. As concluded in EIR Subsection 4.8, Hydrology and Water Quality, features have been incorporated into the Project's design to preclude water quality impacts during both construction and long-term operation. Refer to the mitigation measures provided in EIR Subsection 4.6, Hazards and Hazardous Materials, regarding measures required of the Project during construction to ensure that proper procedures are followed during the moving of on-site monitoring wells.
	Policy 7.2.1: New development may use individual wells only where an adequate supply of good quality groundwater is available.	No inconsistency identified. The Project will be served by a domestic water system and does not propose the use of wells.
	Policy 7.2.2: The City shall comply with the provisions of its permit(s) issued by the Regional Water Quality Control Board for the protection of water quality pursuant to the National Pollutant Discharge Elimination System.	No inconsistency identified. As concluded in EIR Subsection 4.8, Hydrology and Water Quality, the proposed Project would be consistent with the requirements of the City's NPDES permit.
	Policy 7.2.3: In concert with the water purveyor identify aquifer recharge areas and establish regulations to protect recharge areas and regulate new individual wells.	No inconsistency identified. The proposed Project site is not identified as an aquifer recharge area by the General Plan, MVIAP, or the Project's Water Supply Assessment (*Technical Appendix K1*).
	Objective 7.3: Minimize the consumption of water through a combination of water conservation and reuse.	No inconsistency identified. The Project is designed to meet the requirements of the Leadership in Energy and Environmental Design (LEED) program. Following final building inspection, the Project Applicant will seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute. Water conserving features are included as part of the Project's commitment to energy reduction. As concluded in EIR Subsection

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
		4.12, Utilities & Service Systems, the proposed Project would be adequately served with potable water. Recycled water is not currently available in the Project area.
	Policy 7.3.1: Require water conserving landscape and irrigation systems through development review. Minimize the use of lawn within private developments, and within parkway areas. The use of mulch and native and drought tolerant landscaping shall be encouraged.	No inconsistency identified. As shown on the landscape plans included as part of the Project's Master Plot Plan, drought tolerant landscaping has been incorporated into the Project's design. Areas proposed for lawns have been minimized to public gathering areas only.
	Policy 7.3.2: Encourage the use of reclaimed wastewater, stored rainwater, or other legally acceptable non-potable water supply for irrigation.	No inconsistency identified. Reclaimed wastewater is not currently available in the Project area.
	Objective 7.4: Maintain, protect, and preserve biologically significant habitats where practical, including the San Jacinto Wildlife Area, riparian areas, habitats of rare and endangered species, and other areas of natural significance.	No inconsistency identified. EIR Subsection 4.3, Biological Resources, includes a detailed analysis of impacts to biological resources, and concludes that such impacts either would not be significant or would be reduced to a level below significant with the incorporation of mitigation measures.
	Policy 7.4.1: Require all development, including roads, proposed adjacent to riparian and other biologically sensitive habitats to provide adequate buffers to mitigate impacts to such areas.	No inconsistency identified. EIR Subsection 4.3, Biological Resources, includes a detailed analysis of impacts to biologically sensitive habitats, and concludes that such impacts either would not be significant or would be reduced to a level below significant with the incorporation of mitigation measures.
	Policy 7.4.3: Preserve natural drainage courses in their natural state and the natural hydrology, unless the protection of life and property necessitate improvement as concrete channels.	No inconsistency identified. The only significant drainage occurring through the site is the Perris Valley Storm Channel, which already is concrete lined to provide for protection of life and property.
	Policy 7.4.5: The City shall fulfill its obligations set forth within any agreement(s) and permit(s) that the City may enter into for the purpose of implementing the Western Riverside County Multispecies Habitat Conservation Plan.	No inconsistency identified. As concluded in EIR Subsection 4.3, the proposed Project would be consistent with the MSHCP.
	Objective 7.5: Encourage efficient use of energy resources.	No inconsistency identified. The Project is designed to meet the requirements of the Leadership in Energy and Environmental Design (LEED) program in. Following final building inspection, the Project Applicant will seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute. As such the Project will make an efficient use of energy

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
		resources.
	Policy 7.5.1: Encourage building, site design, and landscaping techniques that provide passive heating and cooling to reduce energy demand.	No inconsistency identified. The Project is designed to meet the requirements of the Leadership in Energy and Environmental Design (LEED) program. Following final building inspection, the Project Applicant will seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute. Various aspects of building design, landscaping, and energy systems are designed to reduce energy demand.
	Policy 7.5.2: Encourage energy efficient modes of transportation and fixed facilities, including transit, bicycle, equestrian, and pedestrian transportation. Emphasize fuel efficiency in the acquisition and use of City-owned vehicles.	No inconsistency identified. The Project design complies with all City roadway standards for the provision of required bike lanes, as well as sidewalk and sidewalk easements. Bike racks also will be provided at each building. Although transit service is not currently available adjacent to the Project site, the Project design has set aside areas for future bus turnouts.
	Policy 7.5.3: Locate areas planned for commercial, industrial and multiple family density residential development within areas of high transit potential and access.	No inconsistency identified. As discussed in EIR Subsection 4.11, the Project study area is currently served by the Riverside Transit Agency (RTA) with bus services along Cactus Avenue, Indian Street, John F. Kennedy Drive, Iris Avenue, and Krameria Avenue through various routes. Although transit service is not currently available adjacent to the Project site, the Project design has set aside areas for future bus turnouts.
	Policy 7.5.5: Encourage the use of solar power and other renewable energy systems.	No inconsistency identified. The Project is designed to meet the requirements of the Leadership in Energy and Environmental Design (LEED) program. Following final building inspection, the Project Applicant will seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute. Various aspects of building design, landscaping, and energy systems are designed to reduce energy demand.
	Objective 7.6: Identify and preserve Moreno Valley's unique historical and archaeological resources for future generations.	No inconsistency identified. As concluded in EIR Subsection 4.4, Cultural Resources, the Project site does not contain any known historical or archaeological resources and their potential for discovery during Project construction is low. Mitigation measures are provided in Subsection 4.4 to ensure that any such resources that may be uncovered during Project construction are appropriately treated.
	Policy 7.6.1: Historical, cultural and archaeological resources shall be located and preserved, or mitigated consistent with	No inconsistency identified. As concluded in EIR Subsection 4.4, Cultural Resources, the Project site does not contain any known historical, cultural, or

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
	their intrinsic value.	archaeological resources and their potential for discovery during Project construction is low. Mitigation measures are provided in Subsection 4.4 to ensure that any such resources that may be uncovered during Project construction are appropriately treated.
	Policy 7.6.2: Implement appropriate mitigation measures to conserve cultural resources that are uncovered during excavation and construction activities.	No inconsistency identified. As concluded in EIR Section 4.4, *Cultural Resources*, the Project site does not contain any significant historical or archaeological resources. Mitigation measures are provided in Section 4.4 to ensure that any such resources are uncovered during Project construction are appropriately treated in accordance with state law and local requirements.
	Policy 7.6.3: Minimize damage to the integrity of historic structures when they are altered.	No inconsistency identified. The Project site does not contain any historic structures.
	Objective 7.7: Where practical, preserve significant visual features significant views and vistas.	No inconsistency identified. As concluded in EIR Subsection 4.1, Aesthetics, implementation of the proposed Project would not result in any significant impacts to significant visual features, views, or vistas.
	Policy 7.7.2: Require new electrical and communication lines to be placed underground.	No inconsistency identified. All electrical and communication lines proposed by the Project would be placed underground.
	Policy 7.7.3: Implement reasonable controls on the size, number and design of signs to minimize degradation of visual quality.	No inconsistency identified. The proposed Project would be consistent with the MVIAP signage policies, which were identified to implement this General Plan policy.
	Policy 7.7.6: Minimize the visibility of wireless communication facilities by the public. Encourage "stealth" designs and encourage new antennas to be located on existing poles, buildings and other structures.	No inconsistency identified. The proposed Project does not propose any visible wireless communication facilities; therefore, this policy is not applicable to the proposed Project.
	Objective 7.8: Maintain an adequate system of solid waste collection and disposal to meet existing and future needs.	No inconsistency identified. As concluded in EIR Section 4.12, the Project would be adequately served by solid waste collection and disposal.
	Policy 7.8.1: Encourage recycling projects by individuals, non-profit organizations, or corporations and local businesses, as well as programs sponsored through government agencies.	No inconsistency identified. This policy provides guidance to City staff and decision-makers, and is not applicable to the proposed Project. Additionally, the Project is required by the Project's Master Plot Plan (refer to General Note 9 on Sheet A 0.1) to accommodate trash enclosures that accommodate recycling bins.

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
Housing Element	All Goals, Objectives, and Policies.	No inconsistency identified. All of the goals, objectives, and policies of the General Plan's Housing Element relate to residential uses, including policies promoting the creation of affordable housing opportunities and housing for senior citizens. As a proposed light industrial development, the proposed Project would have no affect on the goals, objectives, or policies of the General Plan Housing Element.

Table 4.9-2 Analysis of Consistency with SCAG Regional Transportation Goals

RTP GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
RTP G1	Maximize mobility and accessibility for all people and goods in the region.	No inconsistency identified. As discussed in EIR Subsection 4.11, conditions of approval and mitigation measures have been or will be imposed to ensure that roadway and intersection improvements needed to accommodate Project traffic volumes are implemented concurrent with the proposed development.
RTP G2	Ensure travel safety and reliability for all people and goods in the region.	No inconsistency identified. EIR Subsection 4.11 evaluates Project-related traffic impacts and specifies the conditions of approval and mitigation measures have been or will be imposed to ensure that roadway and intersection improvements meet safety standards and operate as efficiently as feasible. With acceptable levels of service, travel safety and reliability of people and goods in the region would not be adversely affected by the Project. The Project study area is currently served by the Riverside Transit Agency (RTA) and although transit service is not currently available adjacent to the Project site, the Project design has set aside areas for future bus turnouts. Additionally, sidewalks and bikeways will be provided along the Project's public roadway frontages and bike racks will be installed at each building.
RTP G3	Preserve and ensure a sustainable regional transportation system.	No inconsistency identified. This policy would be implemented by cities and the County on a regional basis as part of the overall planning and maintenance of the regional transportation system. The Project would have no adverse effect on such planning or maintenance efforts.
RTP G4	Maximize the productivity of our transportation system.	No inconsistency identified. This policy would be implemented by cities and the County on a regional basis as part of comprehensive transportation planning efforts. The Project would be consistent with the City of Moreno Valley General Plan, which meets this goal to maximize productivity.
RTP G5	Protect the environment, improve air quality and promote energy efficiency.	No inconsistency identified. An analysis of the Project's environmental impacts is provided throughout this EIR, and mitigation measures are specified where warranted. Air quality is addressed in EIR Subsection 4.2, and mitigation measures have been incorporated to reduce, to the extent feasible, the Project's air quality impacts. Additionally, and as discussed in EIR Subsection 4.6, Greenhouse Gas Emissions, the Project will incorporate measures to reduce the Project's energy consumption. The Project is designed to meet the requirements of the Leadership in Energy and Environmental Design (LEED) program. Following final building inspection, the Project Applicant will seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute. Various aspects of building design, landscaping, and energy systems are designed into the Project to promote the efficient use of energy.
RTP G6	Encourage land use and growth patterns that complement our transportation investments and improve the cost-effectiveness of expenditures.	No inconsistency identified. The proposed Project site is located in an area where existing transportation investments are already located and public services already are available at the site. The March Air Reserve Base and the March Inland Port are located to the west, where there is substantial air transportation investment. Surrounding the other sides of the Project site are properties approved for development. To the east is the approved Indian Business Park (PA07-0079, PA07-0080, PA07-121, P07-0093, and PA08-0018) and to the north is the Moreno Valley Industrial Park (PA07-0035, PA07-0039, and PA08-0021). To the south is a vacant parcel not yet

Table 4.9-2 Analysis of Consistency with SCAG Regional Transportation Goals

RTP GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
		approved for development, beyond which is an existing industrial warehouse building, all of which are designed to include roadway investments as called for in the City of Moreno Valley's General Plan. As such, the Project will develop a property that complements existing and planned transportation investments.
RTP G7	Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies	No inconsistency identified. This policy provides guidance to City staff to monitor the transportation network and to coordinate with other agencies as appropriate.

Note: The list of mitigation measures from the 2008 Regional Transportation Plan Program Environmental Impact Report (2008 RTP PEIR) can be found at: http://www.scag.ca.gov/RTPpeir2008/final/addendum.htm.
Source: SCAG Regional Transportation Policies, May 8, 2008. (Refer to the following web site for more information: http://www.scag.ca.gov/rtp2004/2004/FinalPlan.htm.)

Table 4.9-3 Project Consistency with SCAG Compass/Growth Visioning Principles

GV #	GROWTH VISION POLICY	PROJECT CONSISTENCY DISCUSSION
Principle 1: Improve mobility for all residents		
GV P1.1	Encourage transportation investments and land use decisions that are mutually supportive.	No inconsistency identified. The proposed Project site is located in an area where existing transportation investments are located nearby (i.e., I-215, SR-60, Heacock Street, etc.). The Project site also is identified for development with business park/light industrial land uses as part of the approved MVIAP. Thus, transportation investments proposed by the Project would be supportive of and supported by other investments made in the surrounding area.
GV P1.4	Promote a variety of travel choices.	No inconsistency identified. The Project is proposed as an industrial business park consistent with the City of Moreno Valley General Plan and MVIAP. A majority of people traveling to and from the Project site will be to conduct business, including trucks accessing the Project's loading docks. As discussed in EIR Subsection 4.11, the Project study area is currently served by the Riverside Transit Agency (RTA) with bus services along Cactus Avenue, Indian Street, John F. Kennedy Drive, Iris Avenue, and Krameria Avenue through various routes. Although transit service is not currently available adjacent to the Project site, the Project design has set aside areas for future bus turnouts. Additionally, sidewalks and bikeways will be provided along the Project's public roadway frontages and bike racks will be installed at each building.
Principle 2: Foster livability in all communities		
GV P2.1	Promote infill development and redevelopment to revitalize existing communities.	No inconsistency identified. The March Air Reserve Base is located to the west and developed properties or properties approved for development are located to the north, south, and east. To the east is the approved Indian Business Park (PA07-0079, PA07-0080, PA07-121, P07-0093, and PA08-0018) and to the north is the Moreno Valley Industrial Park (PA07-0035, PA07-0039, and PA08-0021). To the south is a vacant parcel not yet approved for development, beyond which is an existing industrial warehouse building. As such, the Project is an infill project and is proposed to be developed as envisioned by the MVIAP.
GV P2.2	Promote developments that provide a mix of uses.	No inconsistency identified. Although the proposed Project does not include a mix of uses internally, it contributes to the mix of uses existing and planned in the City of Moreno Valley and surrounding areas. The Project is consistent with the approved MVIAP, which identifies this area of Moreno Valley as a location to increase the City's industrial employment base.
Principle 3: Enable prosperity for all people		
GV P2.3	Promote "people scaled," pedestrian-friendly (walkable) communities.	No inconsistency identified. The Project consists of a proposed light industrial development, which is not generally conducive to pedestrian activities. Nonetheless, the Project does include streetscape improvements along all of its public roadway frontages that include landscaping, sidewalks, and bikeways. The public streetscape would be separated from the Project's industrial uses by screen walls, berms, and landscaping that would convey a pedestrian friendly environment along the streetscape.

Table 4.9-3 Project Consistency with SCAG Compass/Growth Visioning Principles

GV #	GROWTH VISION POLICY	PROJECT CONSISTENCY DISCUSSION
GV P3.3	Ensure environmental justice regardless of race, ethnicity or income class.	No inconsistency identified. There are no aspects of the proposed Project that would subject persons of any particular race, ethnicity, or income class to adverse environmental conditions that are unique to such persons.
GV P3.4	Support local and state fiscal policies that encourage balanced growth.	No inconsistency identified. An individual development proposal does not have the ability to support or oppose local and state fiscal policies designed to encourage balanced growth. The Project proposes an industrial business park in the portion of the City of Moreno Valley that is designated for such development by the City's General Plan and MVIAP.
GV P3.5	Encourage civic engagement.	No inconsistency identified. There are no components of the proposed Project that could encourage (or discourage) civic engagement.
Principle 4: Promote sustainability for future generations		
GV P4.1	Preserve rural, agricultural, recreational and environmentally sensitive areas.	No inconsistency identified. The proposed Project site is not designated for rural, agricultural, or recreational land uses, and does not contain resources that would indicate the site is an environmentally sensitive area.
GV P4.2	Focus development in urban centers and existing cities.	No inconsistency identified. The proposed Project site is located within a portion of the City of Moreno Valley that is designated for development with industrial land uses. The site is served by an existing roadway network and adjacent to the City of Moreno Valley's designated truck route.
GV P4.3	Develop strategies to accommodate growth that uses resources efficiently, eliminate pollution and significantly reduce waste.	No inconsistency identified. The proposed Project site is located within a portion of the City of Moreno Valley that is designated for industrial development, adjacent to the March Air Reserve Base. This area is adjacent to other existing and planned developments and as such, would use existing infrastructure systems and services efficiently.
GV P4.4	Utilize "green" development techniques.	No inconsistency identified. The Project is designed to meet the requirements of the Leadership in Energy and Environmental Design (LEED) program. Following final building inspection, the Project Applicant will seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute. Various aspects of building design, landscaping, and energy systems are designed into the Project for the efficient use of resources.

Source: SCAG Compass/Growth Visioning Principles, June 2004. (Available on-line at: http://www.compassblueprint.org/about).

4.10 NOISE

The following analysis is based on two separate technical noise studies prepared by Urban Crossroads, Inc. The first study is entitled, "March Business Center, Noise Analysis, City of Moreno Valley, California," dated November 15, 2011 (*Technical Appendix I1*). The report considers potential noise impacts associated with construction and operation of the proposed Project. The second report is entitled "March Business Center EIR Supplemental Construction Noise Analysis," dated October 28, 2011 (*Technical Appendix I2*), which addresses a more detailed analysis of near-term construction noise levels.

4.10.1 EXISTING CONDITIONS

A. Study Area Description

The Project site, which is currently vacant, is located east of Heacock Street and south of Iris Avenue in the City of Moreno Valley. The Project Applicant is proposing approximately 1,484,407 square feet of industrial development with an opening year for analysis of 2016. As shown on Figure 2-1, adjacent land uses include the March Air Reserve Base to the west, existing single-family homes and vacant land to the north, vacant land to the east that has been approved for development as an industrial/warehousing project (beyond which are residential uses), and vacant land and existing industrial uses to the south. In addition, the Rainbow Ridge Elementary School (the closest existing non-residential sensitive receptor) is located just over 0.25 miles northeast of the Project site.

B. Noise Fundamentals

❑ Noise Definitions

Noise is simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. Because the range of sound that the human ear can detect is so large, the scale used to measure sound intensity is based on multiples of 10, the logarithmic scale. The unit of measure in which a sound intensity is described is the decibel (dB). Each interval of 10 dB indicates a sound energy 10 times greater than before, which is perceived by the human ear as being roughly twice as loud. A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise sources by discriminating against very low and very high frequencies of the audible spectrum; dBA is adjusted to reflect only those frequencies which are audible to the human ear. Due to the internal mechanism of the human ear and how it receives and processes noise, when two sound sources of equal intensity or power are measured together, their combined effect (intensity level) is 3 dBA higher than the level of either separately. Thus, two noise sources that individually produce 72 dBA will measure 75 dBA when the noise sources are combined (absent any other sound-altering factor) (Urban Crossroads 2011d 10).

The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA at approximately 100 feet (Urban Crossroads 2011d 10). Figure 4.10-1, *Typical Noise Levels and Their Subjective Loudness and Effects*, presents a summary of typical noise levels and their subjective loudness and effects.

Environmental noise descriptors are generally based on averages, rather than instantaneous noise levels. The most commonly used figure is the equivalent level (Leq). Leq represents a steady sound

level containing the same total energy as a time-varying level over a given measurement interval. Leq may represent any desired length of time; however, one hour is the most commonly used in environmental work. Consequently, Leq can vary depending upon the time of day. In traffic noise measurements, the noisiest hour of the day is considered the benchmark of a road's noise emissions; therefore, the peak hour Leq is the noise metric used by the California Department of Transportation (Caltrans) for all traffic noise impact analyses (Urban Crossroads 2011d 12).

Peak hour noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour levels may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24 hour noise level, is utilized (Urban Crossroads 2011d 12).

The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of five dB to sound levels in the evening from 7 p.m. to 10 p.m., and the addition of 10 dB to sound levels at night between 10 p.m. and 7 a.m. These additions are made to account for the noise sensitive time periods during the evening and nighttime hours when sound appears louder. CNEL does not represent the actual sound level heard at any particular time, but rather represents the total sound exposure (Urban Crossroads 2011d 12).

❑ Effects of Noise

Harmful effects of noise can include speech interference, sleep disruption, and loss of hearing. High background noise levels can affect performance and learning processes through: distraction; reduced accuracy; increased fatigue, annoyance, and irritability; the inability to concentrate; and sleep prevention. Several factors determine whether a particular noise will interfere with sleep. These factors include the noise level and characteristics, the stage of sleep, the individual's age, and motivation to waken (Urban Crossroads 2011d 10).

Approximately 10% of the population has a very low tolerance for noise and will object to any noise not of their own making. Consequently, even in the quietest environment, some complaints will occur. Another 25% of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. Despite this variability in behavior on an individual level, the population as a whole can be expected to exhibit the following responses to changes in noise levels. An increase or decrease of 1.0 dBA cannot be perceived except in carefully controlled laboratory experiments, a change of 3.0 dBA is considered "barely perceptible," and changes of 5 dBA are considered "readily perceptible" (Urban Crossroads 2011d 13-14).

❑ Traffic Noise Prediction

According to the *Highway Traffic Noise Analysis and Abatement Policy and Guidance* provided by the Federal Highway Administration, the level of traffic noise depends on three primary factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the vehicle mix within the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and a greater number of trucks. A doubling of the traffic volume, assuming that the speed and vehicle mix do not change, results in a noise level increase of 3 dBA. The vehicle mix on a given roadway may also have an effect on community noise levels. As the number of medium and heavy

trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise level impacts will increase. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires on the roadway (Urban Crossroads 2011d 12-13).

❑ Ground Absorption of Noise

To account for the ground-effect attenuation (absorption) of noise, two types of site conditions are commonly used in traffic noise models: soft site and hard site conditions. Soft site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. A drop-off rate of 4.5 dBA per doubling of distance is typically observed over soft ground with landscaping, as compared with a 3.0 dBA drop-off rate over hard ground such as asphalt, concrete, stone, and very hard packed earth (Urban Crossroads 2011d 13). Caltrans research has shown that the use of soft site conditions is more appropriate for the application of the FHWA traffic noise prediction model used in this analysis (Caltrans 1998).

❑ Noise Control and Noise Barrier Attenuation

Noise control is the process of obtaining an acceptable noise environment for a particular observation point or receptor by controlling the noise source, transmission path, receptor, or all three. This concept is known as the source-path-receptor concept. In general, noise control measures can be applied to any and all of these three elements (Urban Crossroads 2011d 13).

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receptor. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the view of the noise source (Urban Crossroads 2011d 13).

❑ Land Use Compatibility

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are considered to be more sensitive to noise intrusion than are commercial or industrial activities. Ambient noise levels can also affect the perceived desirability or livability of a development. For these reasons, land use compatibility with the noise environment is an important consideration in the planning and design process (Urban Crossroads 2011d 14).

C. Noise Analysis Methodology

❑ 24-Hour Noise Readings

Mobile, or transportation-related noise impacts, are measured using the 24-hour CNEL to assess the land use compatibility for community noise exposure. 24-hour noise readings for the Project were recorded on June 15 and 16, 2011 using three (3) Quest DL Pro data logging Type 2 noise dosimeters. All noise meters were programmed in "fast" mode to record noise levels in A-weighted form were equipped with a windscreen during all measurements (Urban Crossroads 2011d 19).

❑ Construction Noise Analysis Methodology

Short-term construction-related noise impacts were calculated using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA represents the state-of-the-art technology in the prediction of environmental noise. CadnaA has the ability to analyze the noise level of multiple types of noise sources and calculates the noise levels at any location using the spatially accurate project

grading plans. The program has the ability to analyze the noise level of multiple types of noise sources and to calculate the effects of topography, buildings and multiple barriers (Urban Crossroads 2011e 2).

For more information about the CadnaA model noise prediction model and how it calculates expected noise impact from each noise source to the noise receptors locations, refer to Technical *Appendix I2* of this EIR. To assess the worst-case construction noise conditions, the noise levels for each piece of the Project's equipment within each phase of construction were combined to represent the maximum construction noise level conditions. In practice, it is unlikely that all pieces of construction equipment would operate at the same time (Urban Crossroads 2011e 2).

❑ Construction Equipment Reference Noise Levels

In January 2006, the Federal Highway Administration (FHWA) published a national database of construction equipment reference noise emission levels. The database provides a comprehensive list of the noise generating characteristics for specific types of construction equipment. In addition, the database provides an acoustical usage factor to estimate the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation (Urban Crossroads 2011e 2).

Noise levels generated by heavy construction equipment can range from approximately 70 dBA to noise levels in excess of 100 dBA when measured at 50 feet. These noise levels diminish with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 78 dBA measured at 50 feet from the noise source to the receptor would be reduced to 72 dBA at 100 feet from the source to the receptor, and would be further reduced to 66 dBA at 200 feet from the source to the receptor (Urban Crossroads 2011e 2-3). The locations of the nearest sensitive receptors to the Project site are depicted on Figure 4.10-2, *Off-Site Noise Sensitive Receptors*.

❑ FHWA Traffic Noise Prediction Model

Future roadway noise impacts from vehicular traffic were projected using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108 (the "FHWA Model"). The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). Adjustments are then made to the REMEL to account for the roadway classification (e.g., collector, secondary, major, or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period (Urban Crossroads 2011d 23).

❑ Traffic Noise Prediction Model Inputs

Table 4.10-5, *Off-Site Roadway Parameters*, presents the FHWA Model roadway parameters used by Urban Crossroads, Inc. in the noise analysis. Per the recommendation of Caltrans, soft site conditions were used to develop the noise contours to analyze the traffic noise conditions in the study area. Table 4.10-6, *Average Daily Traffic (ADT) for Existing Conditions*, depicts the existing ADT for study area roadways. The Existing average daily traffic volumes presented in Table 4.10-6 are derived from the March Business Center Traffic Impact Analysis Report (*Technical Appendix J*).

Table 4.10-7, *Hourly Traffic Flow Distribution*, presents the hourly traffic flow distributions (vehicle mix) used for the noise analysis (which is reflective of the vehicle mix required by the Department of Public Health). The vehicle mix provides the hourly distribution percentages of automobile, medium trucks, and heavy trucks for input into the FHWA Model (Urban Crossroads 2011d 23).

D. Existing Noise Conditions

To determine the existing noise level environment, three (3) long-term 24-hour measurements were taken in the Project study area. Figure 4.10-3, *Noise Monitoring Locations*, provides the boundaries of the Project study area and the noise level measurement locations (locations L1 through L3). The noise level measurements were recorded by Urban Crossroads, Inc. on June 15 and 16, 2011, a typical Tuesday and Wednesday representing the typical ambient noise environment for the study area (Urban Crossroads 2011d 20). The results of the noise level measurements are presented in Table 4.10-8, *Existing Long-Term (Ambient) Noise Level Measurements*, and are summarized below.

- Site L1 is located near the western property line of the single-family homes along Indian Street, approximately 1,350 feet east of the Project site. The existing hourly noise levels at Site L1 range from 52.7 to 62.9 dBA Leq and produce a 24-hour CNEL noise level of 64.7 dBA.

- Site L2 is located north of Iris Avenue, approximately 100 feet from the northeast corner of the Project site at the existing single-family homes. The hourly noise levels at Site L2 range from 55.6 to 77.3 dBA Leq and produce a 24-hour CNEL noise level of 70.5 dBA CNEL.
- Site L3 is located approximately 650 feet south of the southwest corner of the Project site in the flight path of March ARB. The hourly noise levels at Site L3 range from 51.6 to 69.3 dBA Leq and produce a 24-hour CNEL noise level of 70.3 dBA CNEL.

The results of the noise level monitoring show that the existing exterior ambient noise levels at monitoring Sites L2 and L3 currently exceed exterior noise levels of 65 dBA CNEL (Urban Crossroads 2011d 19-21).

❑ Existing Noise Contours

Existing CNEL noise contours are shown for the 55, 60, 65, and 70 dBA noise levels in Table 4.10-9, *Existing Conditions Noise Contours*. Noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway. The noise contours do not take into account the effect of any existing noise barriers or topography that may affect ambient noise levels. Most of the off-site study area is currently developed or planned for development. Table 4.10-9 shows that the existing exterior noise levels for the roadway segments on Cactus Avenue, as well as the road segment of Heacock Street between Cactus Avenue and JFK Drive, experience exterior noise levels in excess of 65 dBA CNEL when measured at 100 feet from the roadway centerline (Urban Crossroads 2011d 27).

The segment of Cactus Avenue between I-215 and Frederick Street does not abut any noise sensitive land uses. There is an existing church facility near this segment (Strong Tower Apostolic Community Church, 22405 Goldencrest Drive #7B), but this church is located more than 500 feet from the centerline of Cactus Avenue. As shown on Table 4.10-9, noise levels along this segment would be below 65 dBA CNEL at a distance of 176 feet; therefore, traffic-related noise levels along

the segment of Cactus Avenue between I-215 and Frederick Street do not expose sensitive receptors to noise in excess of 65 dBA CNEL under existing conditions.

The southwestern corner of Cactus Avenue and Heacock Street once contained the March hospital building, which was demolished in March and April 2011. The March ARB has plans to replace this structure with the "March LifeCare Campus," which is proposed to be constructed southerly of North Avenue and is designed to feature a 550-bed hospital, medical office buildings, retail, a continuum of services for seniors with more than 700 beds, ambulatory care facilities, skilled nursing services, a healing institute and research and training facilities (Just 2011 and March JPA 2009). As shown in Table 4.10-9, the unmitigated transportation-related 65 dBA CNEL exterior noise level contour along the segment of Cactus Avenue between Frederick Street and Heacock Street would occur at a distance of approximately 188 feet from the centerline of Cactus Avenue. The March LifeCare Campus is located approximately 190 feet from the centerline of Cactus Avenue, indicating that noise levels from this segment of Cactus Avenue would not exceed 65 dBA CNEL based on the existing traffic noise conditions.

The segment of Heacock Street between Cactus Avenue and JFK Drive abuts residential land uses. As shown in Table 4.10-9, the 65 dBA CNEL contour extend approximately 100 feet from the centerline of Heacock Street, and currently expose the nearby residential units along this segment to noise levels in excess of 65 dBA CNEL (Urban Crossroads 2011d 27).

❑ Existing Vibration

Groundborne vibration is usually localized to areas within about 100 feet from the vibration source. There are no existing sources of groundborne vibration (such as a railroad line) on or within 100 feet of the Project site.

E. Existing Noise Standards (Policies and Regulations)

Local noise guidelines are often based on the broader guidelines established by state and federal agencies. Following is a description of the existing noise regulatory setting for the proposed March Business Center Project. Because the Project's traffic distribution (and associated vehicular noise) is projected to route through adjacent communities outside of the City of Moreno Valley, including the March Joint Powers Authority, the County of Riverside, and the City of Perris, the noise criteria for the City of Moreno Valley, City of Perris, and County of Riverside are presented below.

❑ California Office of Planning and Research General Plan Guidelines

The City of Moreno Valley General Plan does not include any standards for measuring impacts associated with traffic noise. Rather, noise is considered in the Environmental Safety section of the General Plan Safety Element. While the General Plan provides background and noise fundamentals, it does not identify criteria to assess the impacts associated with off-site transportation related noise impacts. Therefore, for purposes of evaluating traffic-related noise impacts within the City of Moreno Valley, the analysis in this EIR instead relies on the noise criteria derived from the standards provided in the *General Plan Guidelines*, a publication of the California Office of Planning and Research. These standards are used by many California cities and counties and specify the maximum noise levels allowable for new developments. A copy of the *General Plan Guidelines* is provided as Appendix 4.2 to the Project's Noise Impact Analysis (*Technical Appendix I1*) (Urban Crossroads 2011d 15).

The purpose of the transportation noise criteria is to protect, create, and maintain an environment free from noise and vibration that may jeopardize the health or welfare of sensitive receptors, or degrade quality of life. For the nearby noise sensitive areas, the exterior noise levels should remain below 65 dBA CNEL and for interior areas the noise levels should remain below 45 dBA CNEL. For purposes of analysis within this section, the closest noise sensitive uses within the Project's study area include the single-family homes that surround the proposed Project at varying distances, the Rainbow Ridge Elementary School, and the proposed March LifeCare Campus (Urban Crossroads 2011d 15).

❑ City of Moreno Valley Noise Ordinance

The Noise Ordinance included in Chapter 11.80 of the City of Moreno Valley's Municipal Code provides performance standards and noise control guidelines for determining and mitigating non-transportation or stationary noise source impacts.

Section 11.80.030.C, *Nonimpulsive Sound Decibel Limits*, provides the following restriction:

> *No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimpulsive sound which exceeds the limits set forth for the source land use category (as defined in Section 11.80.020) in Table 11.80.030-2 when measured at a distance of two hundred (200) feet or more from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property. Any source of sound in violation of this subsection shall be deemed prima facie to be a noise disturbance. (Moreno Valley n.d. Section 11.80.030.C)*

Table 11.80.030-2 of the City's Noise Ordinance, *Maximum Sound Levels (in dBA) For Source Land Uses*, shows that the daytime and nighttime standards for commercial uses (including the light industrial/warehouse uses proposed by the Project) are 65 dBA and 60 dBA, respectively (Moreno Valley n.d. Table 11.80.030-2).

The City of Moreno Valley also has established exterior noise limits to control noise impacts associated with construction activities. Noise Ordinance Section 11.80.030.D.7, *Construction and Demolitions*, states: "No person shall operate or cause operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of eight p.m. and seven a.m. the following day such that the sound there from creates a noise disturbance, except for emergency work by public service utilities or for other work approved by the city manager or designee" (Moreno Valley n.d. Section 11.80.030.D.7).

❑ County of Riverside General Plan Transportation Noise Standards

The County of Riverside General Plan Noise Element specifies the maximum noise levels allowable for new developments impacted by transportation noise sources such as arterial roads, freeways, airports, and railroads. For the purposes of this Project, the noise impacts associated with traffic are controlled by the General Plan Noise Element. The Noise Element includes standards for land use compatibility for community noise exposure. For single family residential areas, exterior noise levels should remain below 65 dBA CNEL, and interior noise levels should remain below 45 dBA CNEL (Riverside, County of 2003c).

The General Plan standards are derived from standards contained in the *General Plan Guidelines*, a publication of the California Office of Planning and Research. According to the General Plan's Noise Compatibility Matrix (Riverside County General Plan Table N-1), an ambient noise level of up to 65 dBA CNEL for residential uses and up to 70 dBA CNEL for commercial uses is considered "normally acceptable" (Riverside, County of 2003c Table N-1).

❑ City of Perris General Plan Noise Element

The City of Perris General Plan standards also are derived from standards contained in the *General Plan Guidelines*, a publication of the California Office of Planning and Research. The Noise Element includes standards for land use compatibility for community noise exposure. Goal 1 of the City's Noise Element requires that the State of California Noise/Land Use Compatibility Criteria shall be used in determining land use compatibility for new development. At different exterior noise levels, individual land uses are identified as "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable." The City of Perris General Plan's *Land Use/Noise Compatibility Guidelines*, which are presented as General Plan Exhibit N-1, are designed to ensure noise compatibility of proposed land uses with the predicted future noise environment and illustrate the ranges of allowable exterior noise levels for various land uses based on the 2003 State of California General Plan Guidelines (Perris, City of 2005).

The City of Perris utilizes the CNEL scale as the criterion for assessing the compatibility of residential land uses with transportation related noise sources. For noise sensitive uses such as residential uses, the exterior noise level standard is 65 dBA CNEL and the interior noise standard is 45 dBA CNEL. Commercial uses are not considered noise sensitive uses and are evaluated with respect to the Noise/Land Use Compatibility Criteria that defines an ambient noise level ranging from 65 dBA CNEL to 75 dBA CNEL as conditionally acceptable (Perris, City of 2005).

❑ March Joint Powers Authority General Plan Guidelines

The March Joint Powers Authority (JPA) is preparing an update to the March JPA General Plan, but the update was not adopted at the time the NOP for this EIR was released for public review (June 2011). Therefore, the March JPA General Plan (2007) applies, which addresses noise in its Noise/Air Quality Element. Although no are given for measuring impacts associated with traffic noise, the General Plan states that the JPA uses the Noise Compatibility Criteria established by the State Office of Noise Control [in the California State Department of Health Services] (March JPA 2007 3-20). These Office of Noise Control guidelines include noise exposure levels for both exterior and interior environments. The State indicates that locating housing units, hospitals and other sensitive receptors in areas where exterior ambient noise levels exceed 65 CNEL is undesirable. Interior noise levels are recommended to be at or below 45 dBA CNEL (Title 25 of the California Code of Regulations).

❑ Community Noise Assessment Criteria

While the CEQA Guidelines, City of Moreno Valley, City of Perris, County of Riverside, and March JPA noise standards provide direction on noise compatibility and establish noise standards by land use type, they do not define the levels at which increases above the ambient noise levels are considered substantial. However, the FHWA and Caltrans both identify changes in noise levels of greater than 3 dBA as "barely perceptible," while changes of 5 dBA are considered "readily perceptible" (Urban Crossroads 2011d 17).

In a community situation, the noise exposure is extended over a long time period, and changes in noise levels occur over years rather than the immediate comparison made in a laboratory situation. The level at which changes in community noise levels become discernible is likely to be some value greater than 1 dBA, and 3 dBA appears to be appropriate for most people (Urban Crossroads 2011d 18). On this basis, and for the purposes of the proposed Project's noise analysis, a substantial increase in noise levels attributable to operations of the Project would occur:

- If ambient conditions are below applicable standards, and Project-generated noise at receptor land uses would result in:
    - An excedance of the suggested land uses/noise compatibility guidelines for surface transportation sources presented in the long range plans of the City of Moreno Valley, City of Perris, County of Riverside, or March JPA (mobile sources); or
    - An excedance of the exterior noise standards defined in the City of Moreno Valley Noise Ordinance (area/stationary sources);
- If ambient noise conditions exceed applicable Noise Ordinance Standards and Project-generated noise would create a "barely perceptible" 3 dBA or greater permanent increase in ambient exterior noise levels.
    - If noise resulting from Project-related construction activities that exceeds the City of Moreno Valley Noise Ordinance.

4.10.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to noise if the Project or any Project-related component would:

1. *Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;*
2. *Expose persons to or generate excessive groundborne vibration or groundborne noise levels;*
3. *Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;*
4. *Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;*
5. *For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; or*
6. *For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.*

4.10.3 IMPACT ANALYSIS

Threshold 1:	***Would the Project expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***
Threshold 3:	***Would the Project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the Project?***
Threshold 4:	***Would the Project result in a substantially temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the Project?***

A. Short-Term Construction Noise Impacts

Construction activities associated with the Project, especially those involving heavy equipment, would initially create short-term noise increases in the vicinity of the Project site, representing a short-term affect on ambient noise levels. Noise generated by construction equipment, including trucks, graders, bulldozers, concrete mixers, and portable generators, can reach high levels. Grading activities typically represent one of the highest potential sources for noise impacts (Urban Crossroads 2011d 46).

As previously described in EIR Subsection 3.3.6.a, the Project site construction would occur in two phases. Parcel 1 would be completed first, and would involve site preparation and mass grading of the entire Project site (i.e., Parcels 1-4), installation of the master underground utility system (including off-site connections), fine site grading for Parcels 1-4, construction of the proposed building on Parcel 1 (including utility and service connections), and paving of Parcel 1. Phase 2 would involve the construction of buildings on Parcels 2, 3, and 4 and connecting them to the underground utility system, in addition to paving activities on Parcels 2, 3, and 4. Phase 1 is anticipated to be occupied by Year 2014, while Phase 2 would be occupied in Year 2016.

Provided below is a detailed description of the reference noise levels for equipment/activities that would be associated with Project construction. These reference noise levels are used as inputs in the construction-level noise analysis.

Site Preparation Reference Noise Levels

Site preparation activity is estimated to occur over a period of approximately four weeks or 20 working days, and only would occur during Phase 1 of Project construction. Table 4.10-1, *Site Preparation Reference Noise Levels*, shows that during the short-term preparation stage of construction, noise levels at 200 feet from site preparation activities are expected to reach 76.7 dBA Leq, with the 65 dBA contour occurring at a distance of 765 feet from site preparation activities (Urban Crossroads 2011e 3).

Mass Grading Reference Noise Levels

Grading activity is expected to last approximately six weeks or 30 working days, and only would occur during Phase 1 of the proposed Project. Table 4.10-2, *Mass Grading Reference Noise Levels*, shows that during the short-term grading stage of construction, noise levels at

200 feet from grading activities would reach 79.9 dBA Leq, and the 65 dBA contour would occur at a distance of 1,105 feet from grading activities (Urban Crossroads 2011e 3).

Building Construction Reference Noise Levels

Building construction activity is expected to last for approximately seven months during the first phase of construction on Parcel 1 and an additional seven months during the second phase of construction on Parcels 2, 3, and 4. Table 4.10-3, *Building Construction Reference Noise Levels*, shows that during the short-term building construction stage of construction, noise levels at 200 feet from construction activities would reach 77.7 dBA Leq, and the 65 dBA contour would occur at a distance of 863 feet from construction activities (Urban Crossroads 2011e 3).

Paving Reference Noise Levels

Paving activity is expected to last approximately six weeks or 30 working days during the first phase of construction and an additional six working-weeks or thirty days during the second phase of construction. Table 4.10-4, *Paving Construction Reference Noise Levels*, shows that during the short-term paving stage of construction, noise levels at 200 feet from paving activities would reach 75.0 dBA Leq, and the 65 dBA contour would occur at a distance of 633 feet from paving activities (Urban Crossroads 2011e 3).

As shown in Table 4.10-1 through Table 4.10-4, it is expected that the greatest potential for construction-related noise levels affecting nearby sensitive receptors would occur during mass grading in Phase 1. As indicated previously, the City of Moreno Valley's Noise Ordinance requires that nonimpulsive sound levels generated by commercial land uses ("commercial" also includes the Project's land uses) must not exceed 65 dBA at a distance of 200 feet. As presented in Table 4.10-2, the reference noise level during mass grading activities would reach 79.9 dBA Leq at a distance of 200 feet. However, the noise levels presented in Table 4.10-1 through Table 4.10-4 reflect reference noise levels that do not take into consideration intervening topography, barriers, or structures. In order to accurately predict the Project-related construction noise levels affecting off-site properties, construction related noise impacts were calculated using the CadnaA computer program; the results of this modeling effort are presented below.

In order to assess the short-term construction-related noise level impacts on neighboring land uses, nine (9) noise receptor locations were identified. The receptor locations surrounding the proposed Project site include the following land uses:

- North: Currently vacant land, zoned industrial
- Northeast: Existing single-family homes
- East: Currently vacant land, zoned industrial and existing single-family homes
- South: Currently vacant land and existing industrial land uses
- West: Heacock Street and March Air Reserve Base (runways)

Since the City of Moreno Valley Municipal Code does not specifically address construction noise, the noise level limits for the source land use category (i.e., commercial) when measured at a distance of 200 feet were used to assess the noise level impacts at each of the nine noise receptor locations, as representative examples of the overall impact (Urban Crossroads 2011e 4).

The expected construction noise level impacts for each phase were calculated using the CadnaA noise model that includes the noise level attenuation provided by the existing 6.0-foot high noise barrier along the western and southern boundary of the neighboring single-family residential community located to the northeast, north of Iris Avenue. Short-term construction noise levels at the noise sensitive receptors as well as the existing industrial use to the south were calculated and are summarized below (Urban Crossroads 2011e 4).

Phase 1 Construction Noise Level Impact Analysis

Phase 1 of the proposed Project includes site preparation and mass grading of the entire site as well as paving and building construction activities for Parcel 1. Figure 4.10-4 through Figure 4.10-7 depict the unmitigated exterior noise level contours for Phase 1 site preparation, mass grading, building construction, and paving, respectively. Table 4.10-10, *Phase 1 Construction-Related Noise Levels*, depicts the noise levels for each component of Phase 1 construction when measured at a distance of 200 feet. The construction noise analysis indicates that the unmitigated exterior noise level impacts for each component of Phase 1 construction activities would exceed the City of Moreno Valley Noise Ordinance limits (i.e., 65 dBA Leq at 200 feet) (Urban Crossroads 2011e 4). Additionally, Phase 1 construction would expose nearby residential properties located easterly of the Project site (and beyond the vacant parcel approved to be constructed as the Indian Business Park assuming that the business park is not constructed) to noise levels in excess of 65 dBA Leq (as graphically shown on Figure 4.10-4 through Figure 4.10-7). Therefore, construction of Phase 1 of the proposed Project would generate noise levels in excess of the standards established in the City's Noise Ordinance, which is evaluated as a near-term significant impact for which mitigation would be required. Additionally, Phase 1 construction activities would result in a substantial temporary or periodic increase in noise levels in the Project vicinity above levels existing without the Project, and this also represents a significant near-term impact of Project construction. Because Phase 1 construction activities would only occur over the near-term during construction of the proposed Project, construction activities would not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

Phase 2 Construction Noise Level Impact Analysis

Phase 2 of the March Business Center project would involve paving and building construction activities for Parcels 2 through 4. Figure 4.10-8 and Figure 4.10-9 provide the unmitigated exterior noise level contours for Phase 2 building construction and paving activities, respectively. Table 4.10-11, *Phase 2 Construction-Related Noise Levels*, depicts the noise levels for each component of Project construction when measured at a distance of 200 feet. The construction noise analysis indicates that the unmitigated exterior noise levels for Phase 2 building construction and paving activities would exceed the City of Moreno Valley Noise Ordinance standard (i.e., 65 dBA Leq at 200 feet) (Urban Crossroads 2011e 4). Therefore, construction of Phase 2 of the proposed Project would generate noise levels in excess of the standards established in the City's Noise Ordinance, which represents a near-term significant impact for which mitigation would be required. Additionally, Phase 2 construction activities would result in a substantial temporary or periodic increase in noise levels in the Project vicinity above levels existing without the Project, and this also represents a significant near-term impact of Project construction. Because Phase 2 construction activities would only occur over the near-term during construction of the proposed Project, construction activities would not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

Feasibility Evaluation of Temporary Noise Barrier (Construction Phases 1 and 2)

In order to mitigate the above-described short-term noise level impacts associated with Phase 1 of the proposed Project's construction schedule, a 20-foot high temporary noise barrier with a minimum length of 1,100 feet would need to be erected along the northern property line, and an additional 20-foot high temporary construction noise barrier with a minimum length of 2,600 feet would be required along the eastern property line. During construction of Phase 2 of the proposed Project, a 20-foot high temporary construction noise barrier with a minimum length of 300 feet would need to be erected along the northern property line of Parcel 2, and an additional 20-foot high temporary construction noise barrier with a minimum length of 800 feet would be required along the eastern property line. All temporary construction noise barriers would be required to have a minimum Sound Transmission Class (STC) rating of 15. According to Urban Crossroads, the Project's noise consultant, the erection of temporary barriers during Phases 1 and 2 of Project construction would reduce noise levels affecting residential property to below the Noise Ordinance standard of 65 dBA Leq when measured at a distance of 200 feet (Urban Crossroads 2011e 4-5).

The temporary construction noise barriers have been evaluated by the Project Applicant's construction consultant (Oltmans Construction Co.), which determined that the erection of such temporary construction barriers would be infeasible. A copy of the correspondence from Oltmans Construction Co. is provided in *Technical Appendix L*. Specifically, temporary noise barriers would substantially interfere with construction of the proposed Project during both phases of construction, as follows:

- Earthwork would be adversely affected, as the posts holding up the noise barriers would hinder and prevent access of on-site tractors moving site dirt adjacent to the barricades.

- Installation of the underground sewer, water, fire sprinkler, and storm drain lines would be severely and adversely affected. To enable any digging for these critical service lines, removal of the noise barricades would be necessitated as these lines both traverse and parallel the location of the proposed barricades.

- Placement and construction of all curbs, gutters, and sidewalks would require removal of the barricades as they would directly interfere with the construction efforts required to achieve their successful placement (refer to EIR Chapter 3.0 for a detailed description of the proposed Project).

- Landscaping efforts would be compromised due to the location of the proposed noise barriers, adversely affecting successful placement of trees, shrubs, and required irrigation as detailed on the construction plans for the Project (refer to EIR Chapter 3.0 for a detailed description of the proposed Project).

- Construction (and subsequent removal) of the temporary noise barriers would result in a considerable elongation in the duration of construction activities, extending the time that other construction-related effects would occur.

Based on the analysis provided above, it would not be feasible to construct 20-foot tall temporary noise barriers during Phases 1 and 2 of Project construction while accommodating construction activities that are necessary in order to implement the proposed Project. Even if temporary

construction barriers were erected, they would need to be engineered to resist wind loads and be dismantled periodically during construction activities as necessary to accommodate necessary construction activities near the site boundaries and within adjacent roadways; such temporary removal of the noise barriers would result in the exposure of nearby residential properties to noise levels in excess of the City Noise Ordinance standard (noise levels would be similar to those presented on Figure 4.10-4 through Figure 4.10-9). Therefore, construction of 20-foot tall temporary noise barriers during Phases 1 and 2 of Project construction is concluded to be infeasible. Please refer also to EIR Section 6.0, which discusses and considers alternatives to the proposed Project that would reduce or avoid the Project's temporary unmitigated impact due to construction noise.

B. Long-Term Operational Noise Impacts

❑ Transportation-Related Noise Impacts

Generally, traffic noise impacts are analyzed both to ensure that a project would not adversely impact the acoustic environment of the surrounding community and also to ensure that a project site is not exposed to an unacceptable level of noise resulting from the ambient noise environment acting upon the property.

The proposed Project would consist of industrial and warehouse business land uses and is not considered to be sensitive to noise exposure. As previously indicated, mobile-source related noise levels in the City of Moreno Valley are considered to be significant if they would exceed the thresholds recommended by the California Office of Planning and Research's *General Plan Guidelines*. These guidelines specify that industrial uses should not be exposed to noise levels above 75 dBA CNEL ("normally acceptable"). As shown in Table 4.10-12, *Existing Plus Project Conditions Off-Site Traffic-Related Noise Impacts*, with implementation of the proposed Project the projected noise contours for Iris Avenue (which has the highest noise levels among roadways that abut the site) would be 62.6 dBA CNEL at a distance of 100 feet. Therefore, future traffic-related noise would not expose people on the Project site to noise levels in excess of 75 dBA CNEL. Accordingly, traffic-related noise levels affecting the proposed Project site would be less than significant.

The proposed Project does, however, have the potential to cause or contribute to significant traffic-related noise volumes at off-site locations, which could potentially impact sensitive receptors. Tractor trailers transporting goods to and from the site would make up most of the noise generated on and off site. At Project buildout in Year 2016, the Project would consist of 1,380,246 square feet of high-cube/distribution warehouse use; 87,429 square feet of warehousing use; and 16,732 square feet of general light industrial use. According to the Traffic Impact Analysis (*Technical Appendix J*), the proposed Project would produce an estimated 4,400 daily vehicle trips, including 298 during the AM Peak Hour and 328 during the PM Peak Hour (refer to EIR Subection 4.11, Transportation and Traffic).

Noise contours for study area roadway segments were calculated by Urban Crossroads for existing conditions and are presented in Table 4.10-9. As previously indicated, under existing conditions, only the segment of Heacock Street between Cactus Avenue and JFK Drive is considered impacted by noise (due to the exposure of nearby residential units to noise levels in excess of 65 dBA CNEL) in the existing condition.

Urban Crossroads evaluated the potential noise impact that would result from the addition of Project-related traffic to the existing roadway network. Table 4.10-12 presents a comparison of the existing noise conditions to the noise conditions that would result with implementation of the proposed Project in the absence of cumulative developments or ambient growth. As shown, Project-related roadway noise increases along study area road segments would range from -0.3 dBA CNEL to 3.3 dBA CNEL (Urban Crossroads 2011d 29).

Although the Project would contribute more than 3.0 dBA CNEL to one roadway segment (San Michelle Road between Heacock Street and Indian Street), this roadway segment would not expose nearby land uses to noise levels in excess of 65 dBA CNEL. Project-related contributions to the remaining roadway segments would be less than 3.0 dBA CNEL. Therefore, a significant transportation-related noise impact would not occur under Existing Plus Project Conditions (Urban Crossroads 2011d 29 & 35).

In summary, long-term operation of the proposed Project would not generate a substantial permanent increase in transportation-related ambient noise levels, nor would Project-related traffic expose persons to permanent or periodic/temporary noise levels in excess of the standards established by the City of Moreno Valley, City of Perris, County of Riverside, or March JPA General Plans or by the *General Plan Guidelines*, a publication of the California Office of Planning and Research.

❑ Stationary Noise Impacts

The proposed Project would include 1,484,407 square feet of industrial and warehouse distribution development. Stationary noise impacts associated with operation of the Project would include idling trucks, delivery truck activities, loading dock activities, semi-truck movements, and air conditioning units. The projected noise levels used for analysis assume the worst-case noise environment with the loading docks, semi-truck movements, and roof-top air conditioning units all operating simultaneously. In reality, these noise levels will vary throughout the day. The stationary noise source locations expected on the Project site to be located closest to the nearest off-site sensitive receptor are shown on Figure 4.10-10, *Stationary Noise Impacts*, and summarized in Table 4.10-13, *Reference Noise Level Measurements* (Urban Crossroads 2011d 39).

Loading Dock Activities

In order to evaluate the noise impacts associated with semi-truck unloading/loading activities, reference noise level measurements were taken at a large commercial center located at the intersection of Goldenwest Street and Edinger Avenue in the City of Huntington Beach, CA by Urban Crossroads Inc. on April 14, 2011. The primary noises generated by semi-trucks unloading is the noise of the truck arriving, backing into the dock area, detaching the cab, attaching the cab to the empty trailer, and exiting the loading dock. The unmitigated noise level was measured at 77.3 dBA Leq at a distance of 20 feet from the semi-truck (Urban Crossroads 2011d 42).

Semi-Truck Movements

In order to evaluate the noise impacts associated with semi-truck movements along the northern property line, reference noise level measurements were taken at a large commercial center located at the intersection of Goldenwest Street and Edinger Avenue in the City of Huntington Beach, CA by Urban Crossroads Inc. on April 14, 2011. The measurement included the exiting of a semi-truck producing an unmitigated noise level of 69.5 dBA Leq at a distance of 30 feet from the semi-truck (Urban Crossroads 2011d 42).

Mechanical Ventilation Units

Rooftop mechanical ventilation units would be installed on the proposed buildings located within the Project site. To assess the mechanical ventilation system (packaged heat pump) noise impacts, typical outdoor sound power levels were provided by Trane (a manufacturer of HVAC systems). The noise ratings provided by Trane indicate that the packaged heat pumps of an air conditioning unit will produce unmitigated noise levels ranging from 75 to 82 dBA when measured at a distance of 3 feet (Urban Crossroads 2011d 42).

To predict the worst-case future noise environment, a continuous reference noise level of 82 dBA at 3 feet was used to represent the roof-top mechanical ventilation system. The type of air conditioning units that would be used for the Project's buildings is designed to provide cooling during the peak summer daytime periods, so it is unlikely that all units would operate continuously throughout the noise sensitive nighttime periods. Even though the mechanical ventilation system will cycle on and off throughout the day, the noise analysis assumes that it will run continuously to present the worst-case noise condition (Urban Crossroads 2011d 42).

Project-Related Stationary Source Noise Impacts

Based on the reference noise levels (Table 4.10-13), stationary source noise levels from the proposed Project have been calculated at a distance of 200 feet from the property line, which allows for a comparison with the noise standards provided in the City of Moreno Valley Noise Ordinance. Noise level projections were calculated based on the Project's Plot Plans (described in EIR Section 3.0) showing the spatial relationship between the potential on-site noise sources and the sensitive noise receptor locations. Table 4.10-14, *Project Only Stationary Source Impact Noise Level Projections*, presents the expected noise levels associated with the proposed Project at a distance of 200 feet from the property line. The stationary source noise level projections include, where appropriate, delivery truck noise, roof-top air conditioning units, and loading dock activities. Because the precise locations of roof-top air conditioning units are unknown at this time, in order to identify a "worst-case" noise condition, noise reduction due to the buildings' parapets has been excluded from the analysis of projected noise conditions presented in Table 4.10-14 (Urban Crossroads 2011d 43).

As indicated previously, the City of Moreno Valley Noise Ordinance requires that stationary source noise levels ("nonimpulsive sound") may not exceed 60 dBA during daytime hours or 55 dBA during nighttime hours. As shown in Table 4.10-14, the Project-only noise levels at a distance of 200 feet from the property line are expected to reach 48.5 dBA Leq. Therefore, long-term operation of the proposed Project would not exceed the City's standards for stationary noise impacts, and the impact would be less than significant (Urban Crossroads 2011d 43).

Threshold 2: Would the Project expose persons to or generate excessive groundborne vibration or groundborne noise levels?

The Project would not generate groundborne vibration, except for the potential for vibration to occur during the construction phase from the use of large construction equipment. According to the *Transportation and Construction-Induced Vibration Guidance Manual* prepared for Caltrans, ground-borne vibration from construction activities and equipment such as D-8 and D-9 Caterpillars bulldozers, earthmovers, and haul trucks at distances of 10 feet do not create vibration amplitudes

that cause structural damage to nearby structures. The proposed Project is not expected to employ any pile driving or rock blasting equipment during construction activities, and because the nearest receivers are located over 50 feet from the nearest point of construction activities, impacts from groundborne vibration during near-term construction would be less than significant (Urban Crossroads 2011d 54).

Under long-term conditions, operational activities of the proposed Project would not include nor require equipment, facilities, or activities that would result in perceptible groundborne vibration, thus creating no groundborne vibration impacts (Urban Crossroads 2011d 54).

Threshold 5: ***For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the project area to excessive noise levels?***

The project site is located east of March Air Reserve Base. According to the *Air Installation Compatible Use Zone Study for March Air Reserve Base* (Department of the Air Force 2005), and as presented on Figure 4.10-11, *March Reserve Air Base Noise Contours*, the Project site is located outside of the 65 dBA CNEL noise contour and only the northwestern corner of the site is located within the 60 dBA CNEL noise contour. According to the California Division of Aeronautics Noise Standards (California Code of Regulations, Title 21, Section 5000 et. seq.), a noise level of 65 dBA CNEL is considered the "…level of noise acceptable to a reasonable person residing in the vicinity of an airport." Residential land uses are considered more sensitive to noise than the light industrial/warehouse distribution uses proposed by the Project. Aircraft operations would not, therefore, expose people on the Project site to noise levels in excess of 65 dBA CNEL and impacts would be less than significant.

Threshold 6: ***For a project within the vicinity of a private airstrip, would the Project expose people residing or working in the project area to excessive noise levels?***

Although the Project site is adjacent to the March Air Reserve Base, this airfield is not a private airfield and there are no other private airfields or airstrips in the vicinity of the Project site. In addition, a private airstrip is not proposed as part of the Project. Therefore, the proposed Project would not expose people to excessive noise levels associated with operations at a private airstrip or helipad; no impacts would result from excessive noise generated by a private airstrip. There would be no impact.

4.10.4 CUMULATIVE IMPACT ANALYSIS

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects in the vicinity of the proposed Project site and resulting from full General Plan buildout in the City of Moreno Valley and surrounding areas.

The proposed Project is consistent with the property's land use designations as applied by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208), as well as the property's zoning designation. CEQA Guidelines §15183(a) mandates that projects which are consistent with the development density established by existing zoning, community plan, or general

plan policies for which an EIR was certified, shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. In this case, the subject property was evaluated as part of an EIR certified in 1989 for Specific Plan 208 (State Clearinghouse Number 1988080813) and as part of the City's General Plan Program EIR certified in 2006 (State Clearinghouse Number 2000091075). Therefore, as mandated by CEQA Guidelines §15183(a), this EIR focuses on project-specific effects that are peculiar to the proposed March Business Center project and its 75.05-acre property. Regarding cumulative noise impacts, the Project has the potential to contribute to cumulative construction-related noise. Additionally, because the Project is proposing an amendment to the City of Moreno Valley General Plan's Circulation Element and the Specific Plan 208 Circulation Element, there is the potential for roadway segments affected by that change to experience different long-term transportation-related noise levels than given in the City of Moreno Valley's General Plan EIR. For near-term construction conditions, the potential for impacts to be cumulatively considerable is limited to the area immediately surrounding the Project site where other construction projects may be occurring simultaneously. For the analysis of potential impacts due to long-term traffic conditions, the analysis relies on the list of projects used for analysis in the Project's traffic study, which are presented in EIR Table 4.15-8 and shown on Figure 4.15-20 and are the roadway segments that would be affected by the Project's proposed amendment to the General Plan Circulation Element.

Thresholds 1, 3, and 4

A. Short-Term Cumulative Construction Noise Impacts

During both construction phases of the proposed Project, construction activities would produce noise levels that would exceed the City of Moreno Valley's Noise Ordinance, as presented in Table 4.10-1 through Table 4.10-4. The peak noise level anticipated during construction activities would occur during mass grading of the site in Phase 1 of the proposed Project, which would result in Project-related noise levels of 79.9 dBA Leq at a distance of 200 feet and would affect the existing residential uses located to the northeast of the proposed Project site. Additionally, mass grading activities during Phase 1 of the Project would expose nearby sensitive receptors (i.e., residences) located to the east of the proposed Project site to noise levels in excess of 65 dBA Leq. Project-related construction noise levels would exceed the Noise Ordinance standard of 65 dBA Leq at a distance of 200 feet for commercial land uses during daytime hours.

As indicated previously in EIR Section 2.3, lands located immediately to the north and east of the proposed Project site are currently undeveloped, but are approved for future development. Approximately 72 acres of land to the east of the Project site is approved for development as the Indian Business Park, while the 31-acre site to the north is approved to be developed as the Moreno Valley Industrial Park. As of June 2011 (when the NOP for this EIR was released for public review), construction of these developments had not commenced. In the event that construction activities occur on one or both of these properties within 200 feet of proposed Project site and simultaneous with Project-related construction activities, then cumulative noise levels affecting the existing neighborhood to the northeast could exceed the 79.9 dBA Leq noise levels that would occur as a direct result of Project-related construction activities. This is evaluated as a cumulatively significant impact because the resulting noise level would exceed the City of Moreno Valley standards. Additionally, such noise level increases would represent a cumulatively considerable substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project. However, because construction noise would be temporary in nature, Project

construction activities would not result in a cumulatively considerable substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

B. Long-Term Cumulative Operational Noise Impacts

❑ Transportation-Related Noise Impacts (Cumulative Conditions)

Table 4.10-15, *Year 2016 Conditions Off-Site Traffic-Related Impacts*, presents a comparison of the Year 2016 noise levels for study area roadway segments both with and without the addition of Project traffic. As shown in Table 4.10-15, Project-related contributions to traffic noise levels would range from -0.2 to 1.9 dBA CNEL. Accordingly, under Year 2016 Conditions, Project traffic would not result in an increase in projected noise levels on any study area roadway segments above 3.0 dBA CNEL. Therefore, Project traffic-related noise under Year 2016 Conditions would not expose persons to noise levels in excess of standards established in the City of Moreno Valley, City of Perris, County of Riverside, or March JPA, nor would Project-related traffic result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project. When compared to existing conditions (refer to Table 4.10-9), noise level increases in the cumulative Year 2016 condition along study area roadway segments would increase between 0.9 - 9.6 dBA CNEL; however, only seven (7) segments would exceed 65 dBA CNEL, and of which only one (1) segment would experience an increase of more than 3 dBA CNEL (Nandina Avenue between Heacock Street and Indian Street (69.2 dBA CNEL) than occurs under existing conditions. Because this roadway segment is planned to route through an industrial area with no noise-sensitive land uses, the cumulative noise increase of greater than 3.09 dBA would not be considered cumulatively significant and the Project's contribution (0.2 dBA) would not be cumulatively considerable. Accordingly, Project-related traffic noise would be less than significant under cumulative (Year 2016) conditions (Urban Crossroads 2011d 29).

Table 4.10-16, *General Plan Buildout Off-Site Traffic-Related Impacts*, presents a comparison of the noise conditions for study area roadway segments under General Plan buildout conditions both with and without the addition of Project traffic. As shown in Table 4.10-16, with the addition of Project traffic to the roadway network under cumulative (General Plan buildout) conditions, Project-related contributions to traffic-related noise levels would range from -1.3 to 0.3 dBA CNEL. The potential off-site traffic noise level impact decreases are due to changes in the roadway network which alter the distribution of traffic surrounding the Project site. Thus, under General Plan Buildout Conditions, Project-related traffic would not expose persons to noise levels in excess of standards established in the City of Moreno Valley, City of Perris, County of Riverside, and March JPA, nor would Project-related traffic result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project. Accordingly, Project-related traffic noise would be less than significant under General Plan Buildout Conditions (Urban Crossroads 2011d 29).

❑ Stationary Noise Impacts (Cumulative Conditions)

As indicated previously in Table 4.10-14, buildout of the proposed Project, which would involve the construction of 1,484,407 square feet of industrial and warehouse distribution development, would produce noise levels measuring approximately 48.5 dBA CNEL when measured at a distance of 200 feet. The potential for stationary noise impacts to be cumulatively considerable is limited to the area immediately surrounding the Project site, towards the northeast and east where there are existing sensitive receptors.

As indicated above, 72 acres of land to the east of the Project site is approved for development as the Indian Business Park, while the 31-acre site to the north is approved for development as the Moreno Valley Industrial Park. Land uses proposed as part of these developments would be similar in character to land uses proposed by the Project. The long-term operation of these off-site developments would be expected to produce operational noise levels that are similar to those of the proposed Project (i.e., 48.5 dBA at 200 feet). Assuming a worst-case condition where Project-related operational noise would combine with the noise from these off-site developments, the logarithmic sum of three equivalent noise sources with a level of 48.5 dBA would combine to produce a noise level of 53.3 dBA at a distance of 200 feet from the Project boundary. As such, under long-term cumulative conditions, cumulatively considerable operational noise levels would be below the Moreno Valley Noise Ordinance's daytime and nighttime standard for nonimpulsive sound (i.e., 60 dBA and 55 dBA, respectively) (Urban Crossroads 2011d 45).

Therefore, long-term operation of the proposed Project would not result in the exposure of sensitive receptors to cumulative noise levels in excess of the City's Noise Ordinance standards. Long-term operation of the proposed Project also would not result in a substantial cumulative increase in ambient noise levels. Furthermore, there are no components of the Project's long-term operational characteristics that could produce substantial amounts of temporary or periodic ambient noise levels that could impact nearby sensitive receptors. Accordingly, non-transportation related impacts due to long-term operation of the proposed Project under cumulative conditions would have a less than significant cumulative impact and the Project's contribution would be less than cumulatively considerable.

Threshold 2

As previously indicated, types of construction equipment that would be used to implement the proposed Project do not create vibration amplitudes that cause structural damage to nearby structures, and Project construction would not require the use of pile driving or rock blasting equipment that have the potential to generate excessive groundborne vibration or groundborne noise levels. There are no existing or projected sources of groundborne vibration immediately surrounding the Project site. The evaluation of other potential construction projects around the Project site similarly concluded that there would be no excessive groundborne vibration from their activities (City of Moreno Valley Indian Business Park MND, 2008). Accordingly, there would be no cumulative groundborne vibration impact and the Project's contribution to vibration, if any, would be less than cumulatively considerable.

There are no known sources of excessive groundborne vibration or groundborne noise within the immediate vicinity of the Project site. Under long-term operating conditions, the Project would not involve the use of equipment, facilities, or activities that would result in perceptible groundborne vibration. There would be no significant cumulative impact and the Project would have no potential to contribute to a long-term groundborne noise or vibration impact.

Threshold 5

The proposed Project does not involve the construction or operation of any public airports or public use airports. As indicated previously (refer also to Figure 4.10-11), the Project site is located outside of the 65 dBA noise contour for the adjacent March Reserve Air Base, and only the northwestern corner of the site is located within its 60 dBA CNEL noise contour. Airport-related noise levels affecting the Project site are not considered excessive; as such, nearby airport operations would not

expose future on-site workers to excessive noise levels. There are no conditions associated with the proposed Project that could result in contributing to airport noise or exposure additional people to unacceptable levels of airport noise. Accordingly, the Project would have no potential to cumulatively contribute to impacts associated with noise from a public airport or public use airport.

Threshold 6

There are no private airfields or airstrips in the vicinity of the proposed Project site, and the Project would not involve the construction or operation of such facilities. Therefore, implementation of the proposed Project would not expose people residing or working in the Project area to cumulatively excessive noise levels associated with private airstrips, and has no potential to cumulatively contribute to impacts associated with noise from a private airstrip.

4.10.5 APPLICABLE PROJECT REQUIREMENTS

The following is a requirement to which the Project would be required to adhere. Compliance with this requirement was assumed throughout the above noise analysis.

PR 4.10-1 The Project is required to comply with the City of Moreno Valley Noise Ordinance (Moreno Valley Municipal Code Chapter 11.80).

4.10.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Thresholds 1, 3, and 4: Significant Direct and Cumulative Impact (Short-Term). During construction of the Project, noise levels associated with Project construction activities would exceed levels given in the City of Moreno Valley Noise Ordinance. Existing sensitive receptors (residential homes) located northeast of the Project site would be impacted by temporary and intermittent construction noise when construction activities occur on the Project site within 1,105 feet of the northeastern corner of the property boundary. Additionally, in the event that Project construction activities occur simultaneously with construction activities on adjacent properties to the north or east, cumulative construction-related noise levels could be in excess of 79.9 dBA when measured at a distance of 200 feet from the property boundary.

Under long-term operating conditions, the Project would not generate traffic-related or stationary noise levels above the standards given in the City of Moreno Valley Noise Ordinance or in any adjacent jurisdiction's General Plan. Long-term impacts would be less than significant.

Threshold 2: Less than Significant Impact. Near-term construction activities and long-term operation of the proposed Project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels.

Threshold 5: Less than Significant Impact. The Project site is located within the influence area of the March Air Reserve Base (ARB) and its 60dBA noise contour, which is an acceptable noise level for the Project's proposed land uses. As such, the Project would not expose people to excessive noise levels associated with the operation of an airport.

Threshold 6: No Impact. There are no private airstrips in the vicinity of the Project site; as such, the Project has no potential to expose people residing or working in the area to excessive noise levels associated with operation of a private airstrip.

4.10.7 MITIGATION

MM 4.10-1 Prior to the issuance of any building or grading permits, the City of Moreno Valley Building and Safety Division shall review building and grading plans to ensure that the following notes are included:

a) All construction activities, including but not limited to haul truck deliveries, shall be limited to between the hours of 7:00 a.m. and 8:00 p.m.

b) Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.

c) All stationary construction equipment shall be placed in such a manner so that emitted noise is directed away from the construction site's north and east property boundaries.

d) Equipment staging shall be located at a minimum distance of 1,105 feet from the northeastern corner of the Project site's property boundary, as measured from the Iris Avenue right-of-way.

e) All haul truck deliveries shall be limited to approved haul routes. Should alternate routes be necessary, haul trucks shall not use roadways that pass noise-sensitive land uses or residential dwellings unless approved by the City of Moreno Valley.

MM 4.10-2 Prior to the issuance of any building or grading permits, the Project applicant shall prepare a Construction Haul Route exhibit identifying all public and private roadways that will be used for haul truck deliveries. The Construction Haul Route exhibit shall explicitly prohibit the use of Iris Avenue. The Construction Haul Route exhibit shall be subject to review and approval by the Building and Safety Division. Once approved, copies of the Construction Haul Route exhibit shall be provided to all construction contractors, and all construction contractors shall ensure that haul truck deliveries utilize only City-approved haul routes. Should alternate routes be necessary, haul trucks shall not use roadways that pass noise-sensitive land uses or residential dwellings unless prior approval is granted by the City of Moreno Valley.

As previously indicated under the discussion and analysis of the Project's near-term construction-related noise impacts under Thresholds 1, 3, and 4, erection of temporary 20-foot tall temporary construction barriers could reduce construction-related noise impacting nearby residential uses to below the City's Noise Ordinance standard of 65 dBA Leq at 200 feet during portions of construction activities. However, the construction of such barriers was determined to be infeasible because they would substantially interfere with construction activities. Furthermore, erection of temporary construction barriers would not fully eliminate the Project's construction-related noise impacts during Phases 1 and 2 of construction, since the noise barriers would need to be removed periodically to accommodate construction activities along the Project boundary and within adjacent roadways, thereby exposing noise sensitive land uses to noise levels in excess of the City Noise Ordinance standard. Construction of a shorter construction noise barrier also would not be feasible as mitigation, since noise barriers only serve to reduce noise levels when they completely obstruct the line-of-site between the noise source and the receptor (Urban Crossroads 2011d 13). A noise barrier less than 20 feet in height would not obstruct the line-of-site between the proposed Project site and

residences located to the northeast, and would therefore fail to attenuate Project-related construction noise levels.

4.10.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Thresholds 1, 3, and 4: Significant Unavoidable Direct and Cumulative Impact (Short-Term). Project construction activities would expose nearby residential properties to noise levels that exceed the City's Noise Ordinance standard of 65 dBA Leq at a distance of 200 feet. Although implementation of Mitigation Measures MM 4.10-1 and MM 4.10-2 would result in a reduction in construction-related noise levels, these measures would not reduce construction-related noise levels to below the City Noise Ordinance standard. Additional feasible mitigation measures are not available to further reduce Project-related construction noise levels, resulting in a significant and unavoidable short-term impact.

Mitigation Measure MM 4.10-1(d) requires equipment staging to be located at a minimum distance of 1,105 feet from the northeastern corner of the Project site's property boundary would avoid the proposed Project's significant construction-related noise impact related to noise at equipment staging areas. As shown in Table 4.10-1 through Table 4.10-4, the worst-case construction-related noise levels would occur during mass grading activities. Table 4.10-2 indicates that noise levels associated with mass grading would be reduced to a level of 65 dBA Leq at a distance of 1,105 feet. As previously noted, the City's Noise Ordinance prohibits noise levels in excess of 65 dBA Leq at a distance of 200 feet from the property line. Therefore, requiring staging areas to be located at a minimum distance of 1,105 feet from the northeastern property line would ensure that noise levels associated with construction staging areas would not exceed the City's Noise Ordinance standard at off-site sensitive receptors located to the northeast. There are no other sensitive receptors located within 1,105 feet of the proposed Project site; therefore, implementation of Mitigation Measure MM 4.10-1(d) would avoid significant noise impacts associated with construction staging areas.

Table 4.10-1 Site Preparation Reference Noise Levels

EQUIPMENT TYPE	QUANTITY	USAGE FACTOR[1]	HOURS OF OPERATION[2]	REFERENCE NOISE LEVEL AT 50 FEET (DBA)	CUMULATIVE LEVEL AT 200 FEET (DBA)
Rubber Tired Dozer	3	40%	3.2	85.0	73.8
Tractor/Loader/Backhoe	4	40%	3.2	80.0	70.0
Water Truck	2	40%	3.2	84.0	71.0
				Cumulative Noise Levels at 200 Feet (dBA):	76.7
				Distance to 65 dBA Leq Contour (Feet):	765

1: Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.
2: Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.
Source: Urban Crossroads 2011e, Table 1.

Table 4.10-2 Mass Grading Reference Noise Levels

EQUIPMENT TYPE	QUANTITY	USAGE FACTOR[1]	HOURS OF OPERATION[2]	REFERENCE NOISE LEVEL AT 50 FEET (DBA)	CUMULATIVE LEVEL AT 200 FEET (DBA)
Excavator	2	40%	3.2	85.0	72.0
Grader	1	40%	3.2	85.0	69.0
Rubber Tired Dozer	2	40%	3.2	85.0	72.0
Scraper		40%	3.2	85.0	76.0
Tractor/Loader/Backhoe	2	40%	3.2	80.0	67.0
Water Truck	2	40%	3.2	84.0	71.0
				Cumulative Noise Levels at 200 Feet (dBA):	79.9
				Distance to 65 dBA Leq Contour (Feet):	1,105

1: Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.
2: Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.
Source: Urban Crossroads 2011e, Table 2.

Table 4.10-3 Building Construction Reference Noise Levels

EQUIPMENT TYPE	QUANTITY	USAGE FACTOR[1]	HOURS OF OPERATION[2]	REFERENCE NOISE LEVEL AT 50 FEET (DBA)	CUMULATIVE LEVEL AT 200 FEET (DBA)
Crane	2	16%	1.3	85.0	68.0
Forklift	3	40%	3.2	85.0	73.8
Generator	1	50%	3.2	82.0	66.0
Aerial Lift	2	20%	3.2	85.0	72.0
Tractor/Loader/Backhoe	3	40%	3.2	80.0	68.8
Welder	3	40%	3.2	73.0	61.8
				Cumulative Noise Levels at 200 Feet (dBA):	77.7
				Distance to 65 dBA Leq Contour (Feet):	863

1: Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.
2: Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.
Source: Urban Crossroads 2011e, Table 3.

Table 4.10-4 Paving Reference Noise Levels

EQUIPMENT TYPE	QUANTITY	USAGE FACTOR[1]	HOURS OF OPERATION[2]	REFERENCE NOISE LEVEL AT 50 FEET (DBA)	CUMULATIVE LEVEL AT 200 FEET (DBA)
Paver	2	40%	3.2	85.0	72.0
Paving Equipment	2	40%	3.2	82.0	69.0
Rollers	2	20%	1.6	85.0	69.0
Cumulative Noise Levels at 200 Feet (dBA):					75.0
Distance to 65 dBA Leq Contour (Feet):					633

1: Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.
2: Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.
Source: Urban Crossroads 2011e, Table 4.

Table 4.10-5 Off-Site Roadway Parameters

ROADWAY	SEGMENT LIMITS	ROADWAY CLASSIFI-CATION	VEHICLE SPEED (MPH)	SITE CONDITIONS
Cactus Avenue	I-215 to Frederick Street	Divided Major Arterial Reduced	50	Soft
	Frederick Street to Heacock Street	Divided Major Arterial Reduced	50	Soft
Iris Avenue	Heacock Street to Indian Street	Arterial	45	Soft
	Indian Street to Perris Boulevard	Arterial	45	Soft
Krameria Avenue	Cosmos Street to Perris Boulevard	Minor Arterial	40	Soft
San Michele Road	Heacock Street to Indian Street	Arterial	45	Soft
Nandina Avenue	Heacock Street to Indian Street	Minor Arterial	40	Soft
Harley Knox Boulevard	I-215 to Indian Street	Divided Arterial (6 Lanes)	50	Soft
	Indian Street to Perris Boulevard	Divided Arterial (6 Lanes)	50	Soft
Heacock Street	Alessandro Boulevard to Cactus Avenue	Arterial	45	Soft
	Cactus Avenue to JFK Drive	Arterial	45	Soft
	JFK Drive to Gentian Avenue	Arterial	45	Soft
	Gentian Avenue to Iris Avenue	Arterial	45	Soft
	Iris Avenue to Krameria Avenue	Arterial	45	Soft
	Krameria Avenue to San Michele Road	Arterial	45	Soft
	San Michele Road to Nandina Avenue	Arterial	45	Soft
Indian Street	San Michele Road to Nandina Avenue	Minor Arterial	40	Soft
	Nandina Avenue to Harley Knox Boulevard	Minor Arterial	40	Soft

Values based on the March Business Center Traffic Impact Analysis (*Appendix J).*
Source: Urban Crossroads 2011d, Table 6-1.

Table 4.10-6 Average Daily Traffic (ADT) for Existing Conditions

ROADWAY	SEGMENT	AVERAGE DAILY TRAFFIC (1,000S)
Cactus Avenue	I-215 to Frederick Street	32.3
	Frederick Street to Heacock Street	35.6
Iris Avenue	Heacock Street to Indian Street	10.8
	Indian Street to Perris Boulevard	13.3
Krameria Avenue	Cosmos Street to Perris Boulevard	1.9
San Michele Road	Heacock Street to Indian Street	1.5
Nandina Avenue	Heacock Street to Indian Street	1.2
Harley Knox Boulevard	I-215 to Indian Street	12.4
	Indian Street to Perris Boulevard	5.2
Heacock Street	Alessandro Boulevard to Cactus Avenue	12.2
	Cactus Avenue to JFK Drive	19.6
	JFK Drive to Gentian Avenue	15.1
	Gentian Avenue to Iris Avenue	12.7
	Iris Avenue to Krameria Avenue	2.3
	Krameria Avenue to San Michele Road	2.8
	San Michele Road to Nandina Avenue	1.4
Indian Street	San Michele Road to Nandina Avenue	3.1
	Nandina Avenue to Harley Knox Boulevard	6.0

Source: Urban Crossroads 2011d, Table 6-2.

Table 4.10-7 Hourly Traffic Flow Distribution

MOTOR VEHICLE TYPE	DAYTIME (7 A.M. - 7 P.M.)	EVENING (7 P.M. - 10 P.M.)	NIGHT (10 P.M. - 7 A.M.)	TOTAL % TRAFFIC FLOW
Automobiles	77.5%	12.9%	9.6%	97.42%
Medium Trucks	84.8%	4.9%	10.3%	1.84%
Heavy Trucks	86.5%	2.7%	10.8%	0.74%

Values reflect typical Southern California vehicle mix.
Source: Urban Crossroads 2011d, Table 6-3.

Table 4.10-8 Existing Long-Term (Ambient) Noise Level Measurements

MONITORING SITE	DESCRIPTION	PRIMARY NOISE SOURCE	HOURLY NOISE LEVELS (LEQ DBA)	DAILY NOISE LEVELS (DBA CNEL)
L1	Located near the western property line of the single-family homes along Indian Street, approximately 1,350 feet east of the proposed Project.	Traffic on Indian Street and aircraft at March ARB.	52.7 - 62.9	64.7
L2	Located approximately 100 feet across Iris Avenue from the northeast corner of the proposed Project site at the existing single-family homes.	Traffic on Iris Avenue and aircraft at March ARB.	55.6 - 73.3	70.5
L3	Located approximately 650 feet south of the southwest corner of the proposed project site in the flight path of March ARB.	Traffic on Heacock Street and aircraft at March ARB.	51.6 - 69.3	70.3

1: All noise measurements were taken by Urban Crossroads, Inc. on June 15-16, 2011 over a 24-hour period.
2: See Figure 4.10-3 for the location of monitoring sites.
Source: Urban Crossroads 2011d, Table 5-1.

Table 4.10-9 Existing Conditions Noise Contours

ROADWAY	SEGMENT	CNEL AT 100 FEET (DBA)	DISTANCE TO CONTOUR (FEET)[1]			
			70 DBA CNEL	65 DBA CNEL	60 DBA CNEL	55 DBA CNEL
Cactus Avenue	I-215 to Frederick Street	68.7	82	176	379	817
	Frederick Street to Heacock Street	69.1	87	188	405	872
Iris Avenue	Heacock Street to Indian Street	62.5	RW	66	142	315
	Indian Street to Perris Boulevard	63.4	RW	78	168	362
Krameria Avenue	Cosmos Street to Perris Boulevard	53.7	RW	RW	RW	82
San Michele Road	Heacock Street to Indian Street	53.9	RW	RW	RW	84
Nandina Avenue	Heacock Street to Indian Street	51.7	RW	RW	RW	60
Harley Knox Boulevard	I-215 to Indian Street	64.5	RW	93	199	430
	Indian Street to Perris Boulevard	60.7	RW	RW	112	241
Heacock Street	Alessandro Boulevard to Cactus Avenue	63.0	RW	74	159	342
	Cactus Avenue to JFK Drive	65.1	RW	101	218	469
	JFK Drive to Gentian Avenue	63.9	RW	85	183	394
	Gentian Avenue to Iris Avenue	63.2	RW	76	163	351
	Iris Avenue to Krameria Avenue	55.8	RW	RW	52	112
	Krameria Avenue to San Michele Road	56.6	RW	RW	59	128
	San Michele Road to Nandina Avenue	53.6	RW	RW	RW	81
Indian Street	San Michele Road to Nandina Avenue	55.8	RW	RW	52	113
	Nandina Avenue to Harley Knox Boulevard	58.7	RW	RW	82	176

1: RW = Location of the respective noise contour falls within the right-of-way of the road.
Source: Urban Crossroads 2011d, Table 7-1.

Table 4.10-10 Phase 1 Construction-Related Noise Levels

RECEPTOR	SITE PREPARATION	MASS GRADING	BUILDING CONSTRUCTION	PAVING
R1	64.7	**67.7**	**66.2**	64.0
R2	64.5	**67.5**	**66.0**	63.8
R3	60.7	63.7	61.9	59.7
R4	58.7	61.7	59.7	57.5
R5	68.0	**71.0**	**68.7**	**66.5**
R6	**68.7**	**71.7**	**69.2**	**67.0**
R7	**69.0**	**72.0**	**69.2**	**67.0**
R8	**68.4**	**71.4**	**67.7**	**65.5**
R9	**72.1**	**75.1**	**68.6**	**66.4**

1 Noise Level Contours Presented in Figure 4.10-4 through Figure 4.10-7.
2 Noise levels presented in **bold** exceed the City of Moreno Valley 65 dBA Leq at 200 feet noise level standard.
Source: Urban Crossroads 2011e Table 5.

Table 4.10-11 Phase 2 Construction-Related Noise Levels

RECEPTOR	BUILDING CONSTRUCTION	PAVING
R1	54.0	51.1
R2	53.7	50.8
R3	53.7	50.8
R4	53.5	50.6
R5	64.2	61.3
R6	**66.2**	63.3
R7	**67.3**	64.4
R8	**68.5**	**65.6**
R9	**74.4**	**71.5**

1 Noise Level Contours Presented in Figure 4.10-8 and Figure 4.10-9.
2 Noise levels presented in **bold** exceed the City of Moreno Valley 65 dBA Leq at 200 feet noise level standard.
Source: Urban Crossroads 2011e Table 6.

Table 4.10-12 Existing Plus Project Conditions Off-Site Traffic-Related Noise Impacts

ROADWAY	SEGMENT LIMITS	CNEL AT 100 FEET (DBA)			POTENTIALLY SIGNIFICANT IMPACT?
		NO PROJECT	WITH PROJECT	PROJECT CONTRIBUTION	
Cactus Avenue	I-215 to Frederick Street	68.7	68.9	0.2	NO
	Frederick Street to Heacock Street	69.1	69.3	0.2	NO
Iris Avenue	Heacock Street to Indian Street	62.5	62.6	0.1	NO
	Indian Street to Perris Boulevard	63.4	63.5	0.1	NO
Krameria Avenue	Cosmos Street to Perris Boulevard	53.7	54.1	0.4	NO
San Michele Road	Heacock Street to Indian Street	53.9	57.2	3.3	NO
Nandina Avenue	Heacock Street to Indian Street	51.7	52.0	0.3	NO
Harley Knox Boulevard	I-215 to Indian Street	64.5	65.1	0.6	NO
	Indian Street to Perris Boulevard	60.7	61.0	0.3	NO
Heacock Street	Alessandro Boulevard to Cactus Avenue	63.0	63.1	0.1	NO
	Cactus Avenue to JFK Drive	65.1	65.5	0.4	NO
	JFK Drive to Gentian Avenue	63.9	64.5	0.6	NO
	Gentian Avenue to Iris Avenue	63.2	63.8	0.6	NO
	Iris Avenue to Krameria Avenue	55.8	58.7	2.9	NO
	Krameria Avenue to San Michele Road	56.6	58.8	2.2	NO
	San Michele Road to Nandina Avenue	53.6	53.3	-0.3	NO
Indian Street	San Michele Road to Nandina Avenue	55.8	57.8	2.0	NO
	Nandina Avenue to Harley Knox Boulevard	58.7	59.8	1.1	NO

Note: A significant impact is considered both a level above 65 dBA CNEL and an increase greater than 3.0 dBA.
Source: Urban Crossroads 2011d, Table 7-7.

Table 4.10-13 Reference Noise Level Measurements

NOISE SOURCE	DURATION (MINUTES: SECONDS)	DISTANCE FROM SOURCE (FEET)	NOISE SOURCE HEIGHT (FEET)	DROP-OFF RATE[3] (LEQ DBA)	NOISE LEVEL (LEQ DBA)
Loading Dock Activites[1]	1:00	20.0	8.0	6.0	77.3
Semi-Truck Enter/Exiting[1]	1:00	30.0	8.0	6.0	69.5
Air Conditioning Units[2]	2:00	100.0	3.0	6.0	51.8

1: As measured by Urban Crossroads, Inc. on April 14, 2011 at a large commercial center located at the intersection of Goldenwest Street and Edinger Avenue in the City of Huntington Beach, CA.
2: Data provided by Split System Cooling Product Data, Trane, July 2010.
3: Noise level (dBA) drop-off rate per doubling of distance.
Source: Urban Crossroads 2011d, Table 8-1.

Table 4.10-14 Project Only Stationary Source Impact Noise Level Projections

NOISE SOURCE	REFERENCE NOISE LEVEL DISTANCE	REFERENCE NOISE LEVEL (DBA)	DISTANCE FROM SOURCE TO PROPERTY LINE (FEET)	SOURCE NOISE LEVEL AT PROPERTY LINE (DBA)	REFERENCE NOISE LEVEL AT 200 FEET FROM PROPERTY LINE
Loading Dock Activities	100'	51.8	140.0	48.9	42.9
Semi-Truck Movements	30'	69.5	60.0	63.5	47.0
Air Conditioning Units	20'	77.3	320.0	53.2	33.2
Overall Unmitigated Noise Level at 200 Feet from Property Line					**48.5**

Source: Urban Crossroads 2011d, Table 8-2.

Table 4.10-15 Year 2016 Conditions Off-Site Traffic-Related Noise Impacts

ROADWAY	SEGMENT LIMITS	CNEL AT 100 FEET (DBA)			POTENTIALLY SIGNIFICANT IMPACT?
		NO PROJECT	WITH PROJECT	PROJECT CONTRIBU-TION	
Cactus Avenue	I-215 to Frederick Street	70.9	71.4	0.5	NO
	Frederick Street to Heacock Street	71.1	71.2	0.1	NO
Iris Avenue	Heacock Street to Indian Street	63.4	63.5	0.1	NO
	Indian Street to Perris Boulevard	64.2	64.3	0.1	NO
Krameria Avenue	Cosmos Street to Perris Boulevard	56.4	58.7	0.3	NO
San Michele Road	Heacock Street to Indian Street	62.9	63.5	0.6	NO
Nandina Avenue	Heacock Street to Indian Street	57.8	57.8	0.0	NO
Harley Knox Boulevard	I-215 to Indian Street	69.0	69.2	0.2	NO
	Indian Street to Perris Boulevard	64.4	64.5	0.1	NO
Heacock Street	Alessandro Boulevard to Cactus Avenue	65.0	65.1	0.1	NO
	Cactus Avenue to JFK Drive	67.0	67.3	0.3	NO
	JFK Drive to Gentian Avenue	66.1	66.5	0.4	NO
	Gentian Avenue to Iris Avenue	65.3	65.7	0.4	NO
	Iris Avenue to Krameria Avenue	61.4	63.3	1.9	NO
	Krameria Avenue to San Michele Road	62.8	63.4	0.6	NO
	San Michele Road to Nandina Avenue	55.4	55.2	-0.2	NO
Indian Street	San Michele Road to Nandina Avenue	63.1	63.5	0.4	NO
	Nandina Avenue to Harley Knox Boulevard	64.7	65.0	0.3	NO

Note: A significant impact is considered both a level above 65 dBA CNEL and an increase greater than 3.0 dBA.
Source: Urban Crossroads 2011d, Table 7-8.

Table 4.10-16 General Plan Buildout Off-Site Traffic-Related Noise Impacts

ROADWAY	SEGMENT LIMITS	CNEL AT 100 FEET (DBA)			POTENTIALLY SIGNIFICANT IMPACT?
		NO PROJECT	WITH PROJECT	PROJECT CONTRIBUTION	
Cactus Avenue	I-215 to Frederick Street	--	--	--	--
	Frederick Street to Heacock Street	--	--	--	--
Iris Avenue	Heacock Street to Indian Street	63.6	63.9	0.3	NO
	Indian Street to Perris Boulevard	65.4	65.4	0.0	NO
Krameria Avenue	Cosmos Street to Perris Boulevard	61.7	60.4	-1.3	NO
San Michele Road	Heacock Street to Indian Street	--	--	--	--
Nandina Avenue	Heacock Street to Indian Street	--	--	--	--
Harley Knox Boulevard	I-215 to Indian Street	--	--	--	--
	Indian Street to Perris Boulevard	--	--	--	--
Heacock Street	Alessandro Boulevard to Cactus Avenue	--	--	--	--
	Cactus Avenue to JFK Drive	--	--	--	--
	JFK Drive to Gentian Avenue	--	--	--	--
	Gentian Avenue to Iris Avenue	66.9	66.6	-0.3	NO
	Iris Avenue to Krameria Avenue	65.9	65.4	-0.5	NO
	Krameria Avenue to San Michele Road	65.9	65.3	-0.6	NO
	San Michele Road to Nandina Avenue	--	--	--	--
Indian Street	San Michele Road to Nandina Avenue	--	--	--	--
	Nandina Avenue to Harley Knox Boulevard	--	--	--	--

Note: A significant impact is considered both a level above 65 dBA CNEL and an increase greater than 3.0 dBA.
Source: Urban Crossroads 2011d, Table 7-9

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		SPEECH INTERFERENCE
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

SOURCE: NOISE TECHNICAL SUPPLEMENT BY CALTRANS

Source: Urban Crossroads (11-15-11)

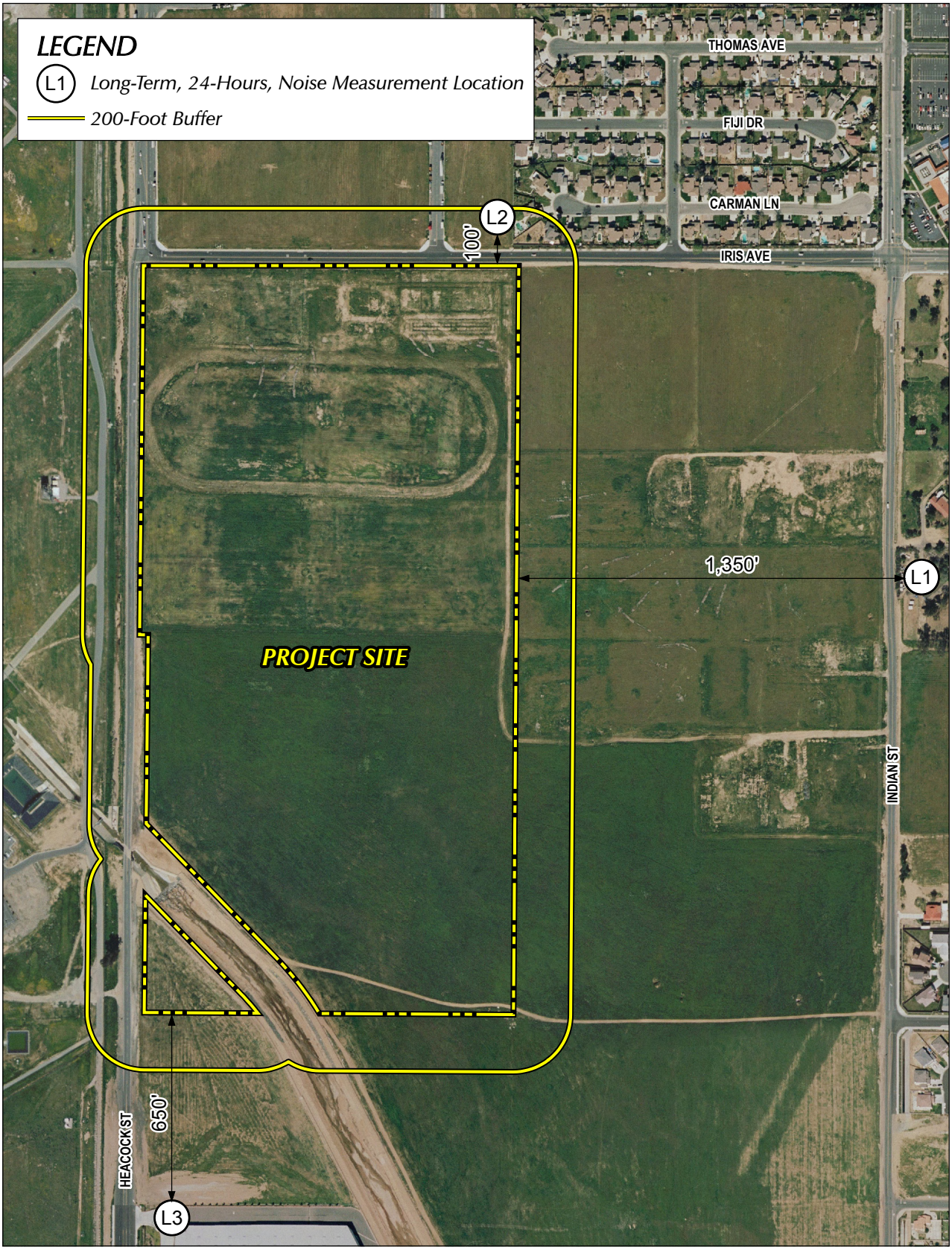
Not to Scale

FIGURE 4.10-1
Typical Noise Levels and Their Subjective Loudness and Effects

Source: RCTLMA (2011), Eagle Aerial (2008), Urban Crossroads (2011)

Figure 4.10-2

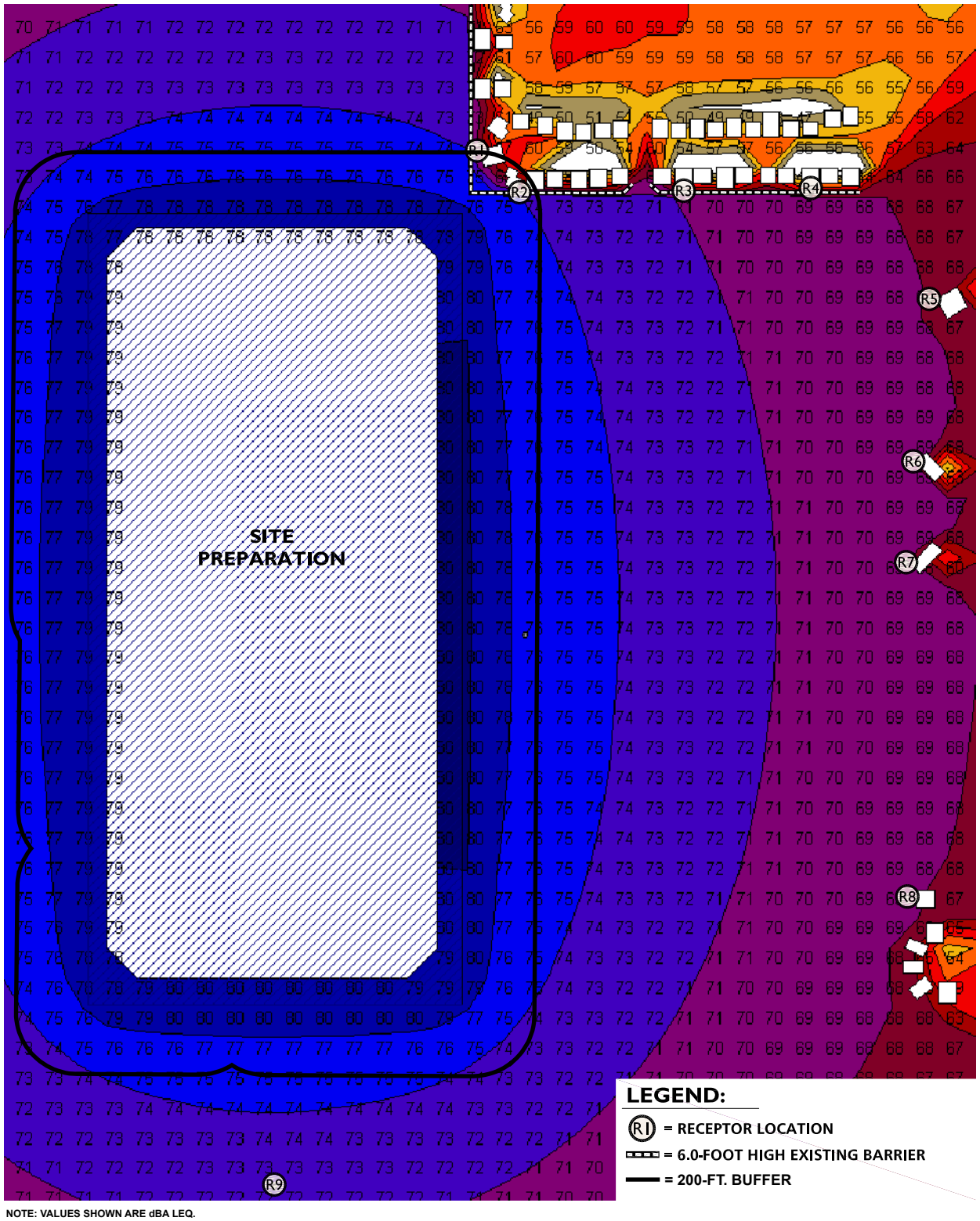
Off-Site Noise Sensitive Receptors



Source: RCTLMA (2011), Eagle Aerial (2008), Urban Crossroads (2011d, Figure 5-A)

Figure 4.10-3

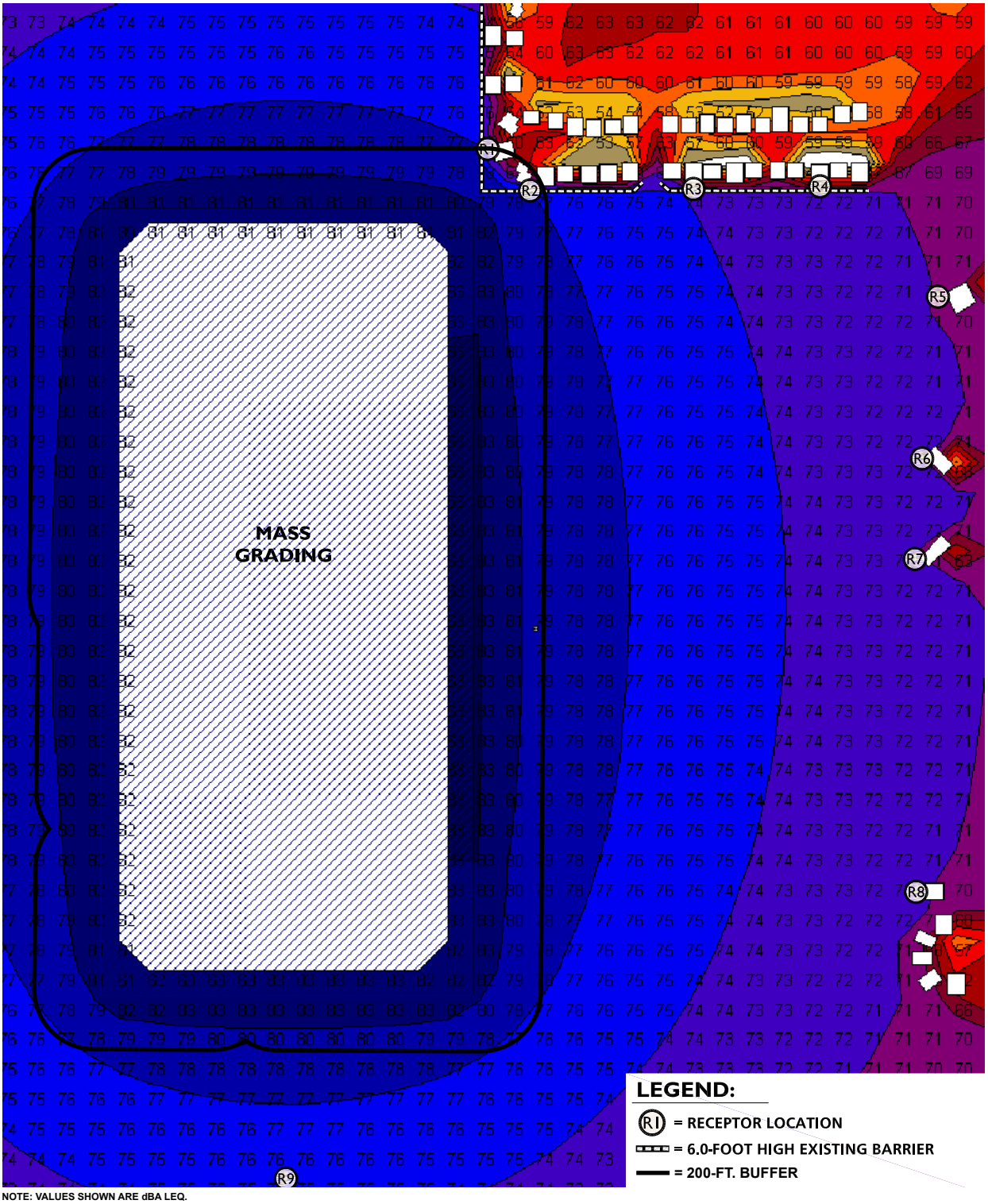
Noise Monitoring Locations



Source: Urban Crossroads (2011e Exhibit 1)

Not to Scale

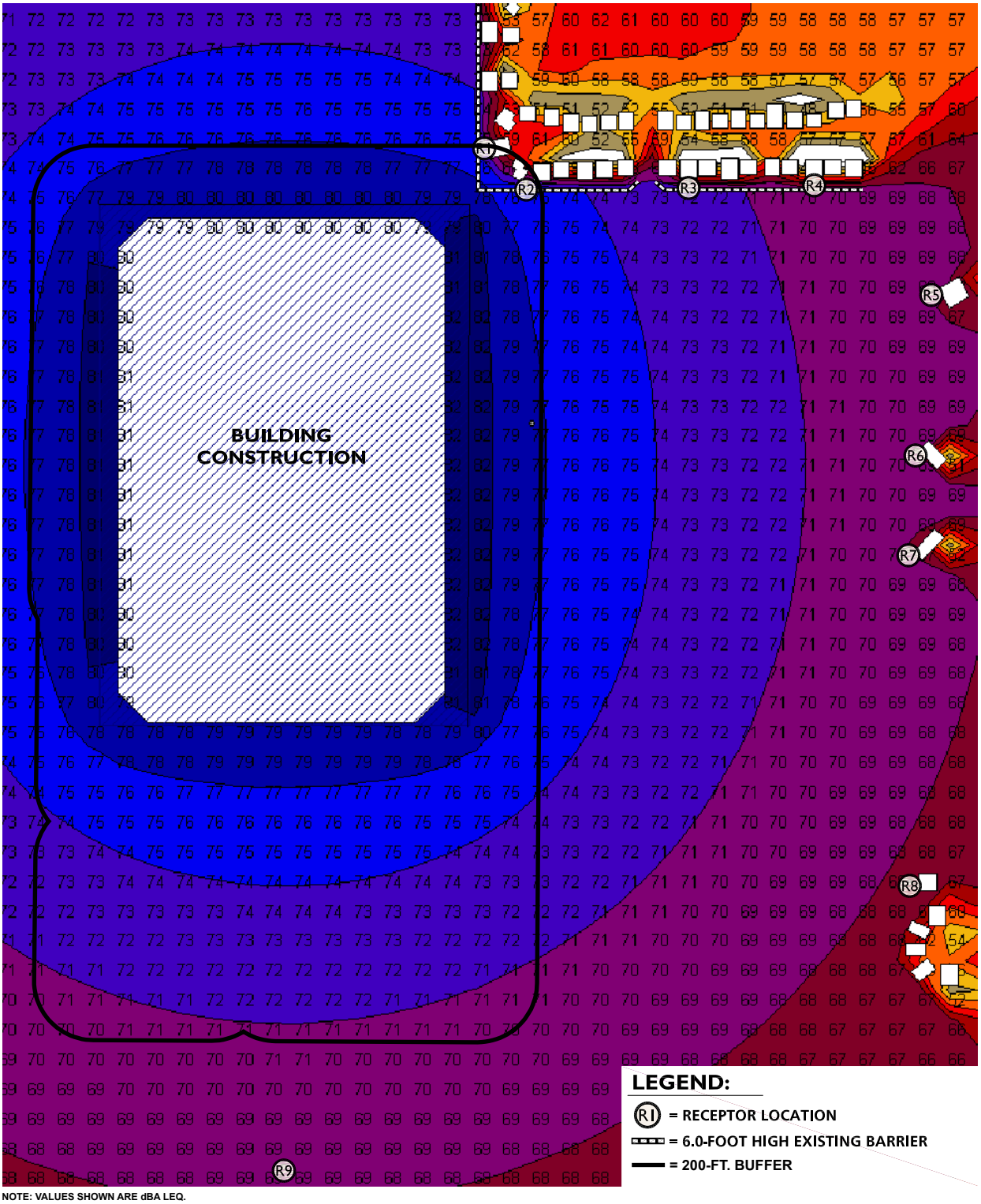
FIGURE 4.10-4
Unmitigated Construction Noise Levels - Phase 1 Site Preparation



Source: Urban Crossroads (2011e Exhibit 2)

Not to Scale

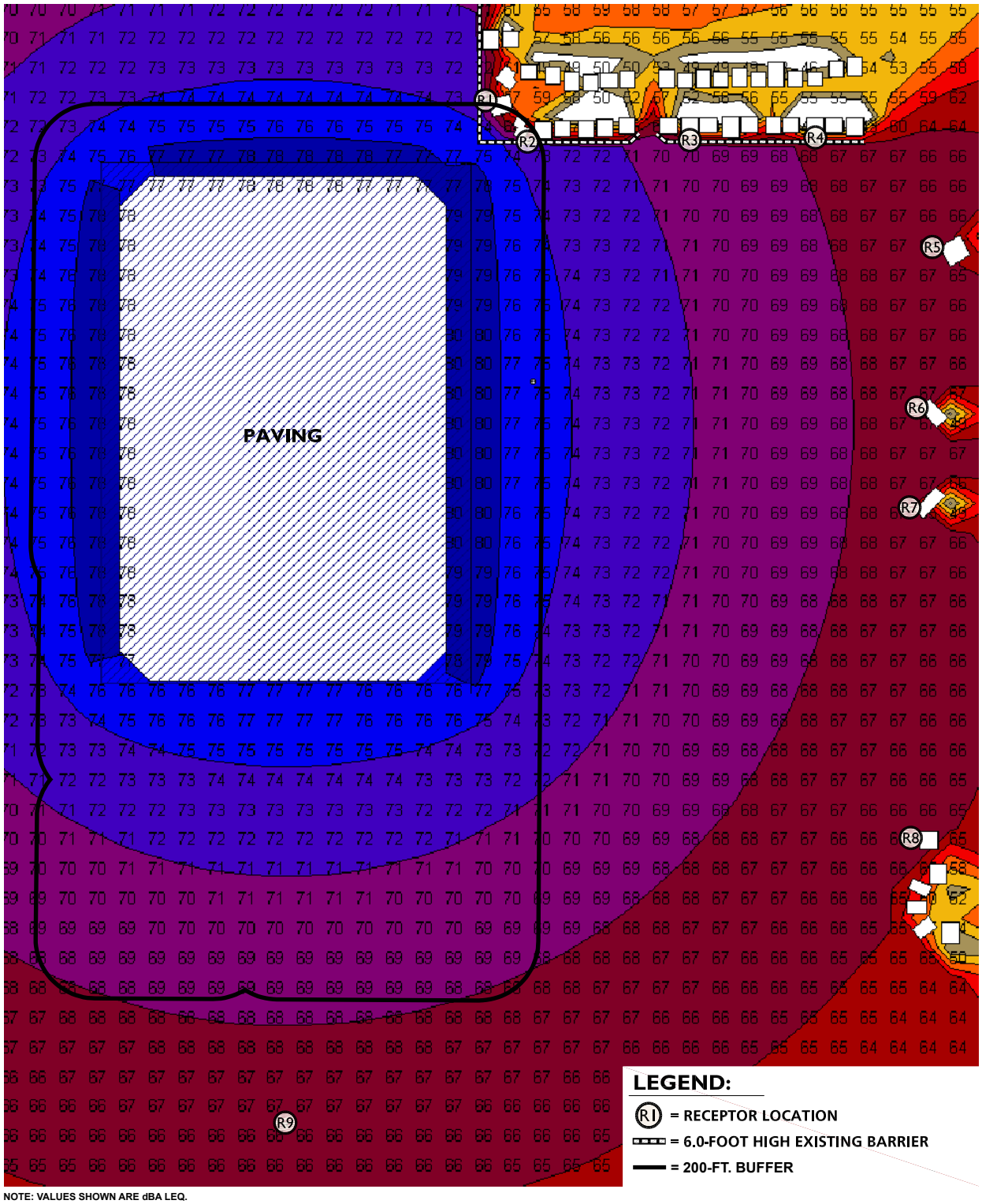
FIGURE 4.10-5
Unmitigated Construction Noise Levels - Phase 1 Mass Grading



Source: Urban Crossroads (2011e Exhibit 3)

Not to Scale

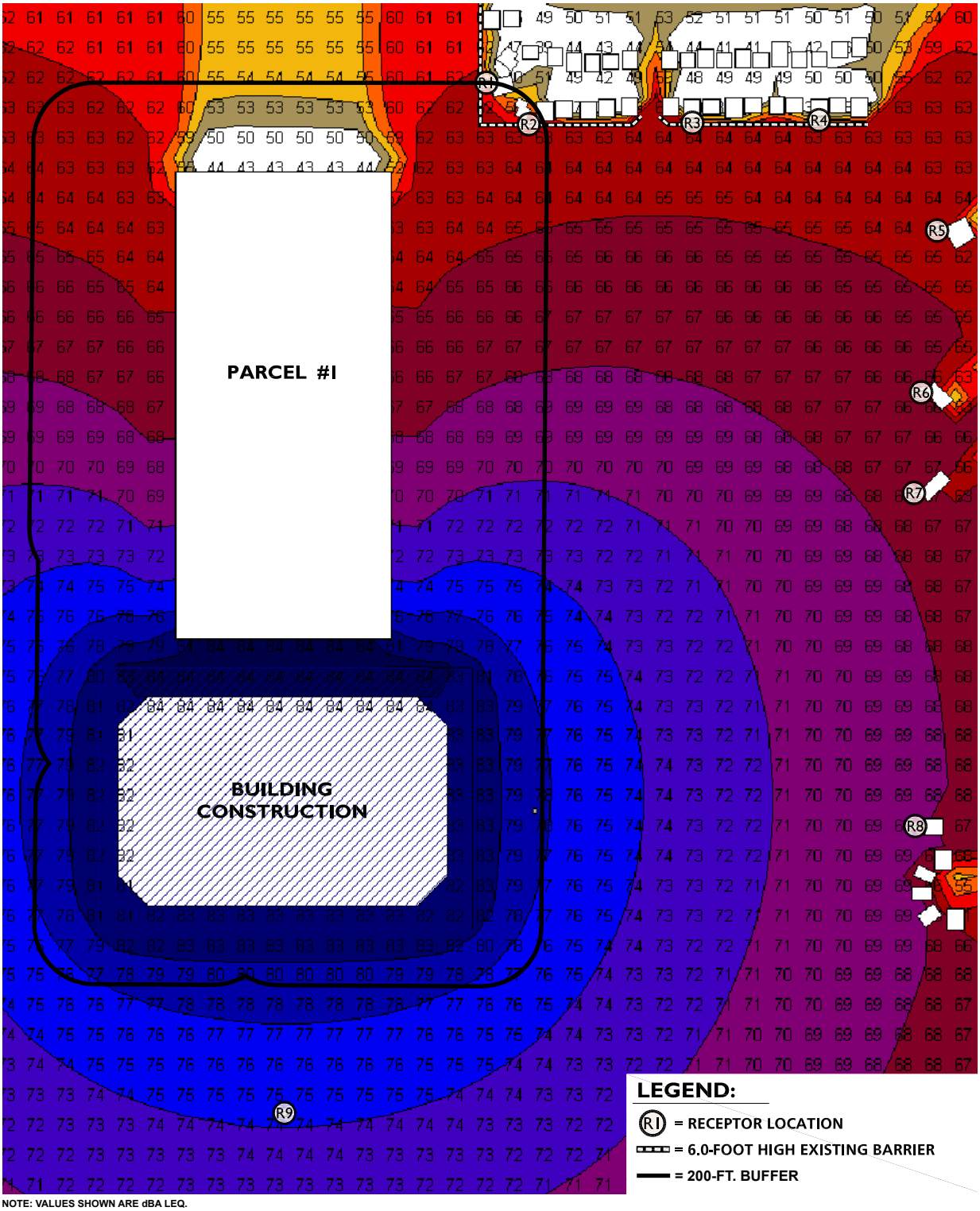
FIGURE 4.10-6
Unmitigated Construction Noise Levels - Phase 1 Building Construction



Source: Urban Crossroads (2011e Exhibit 4)

Not to Scale

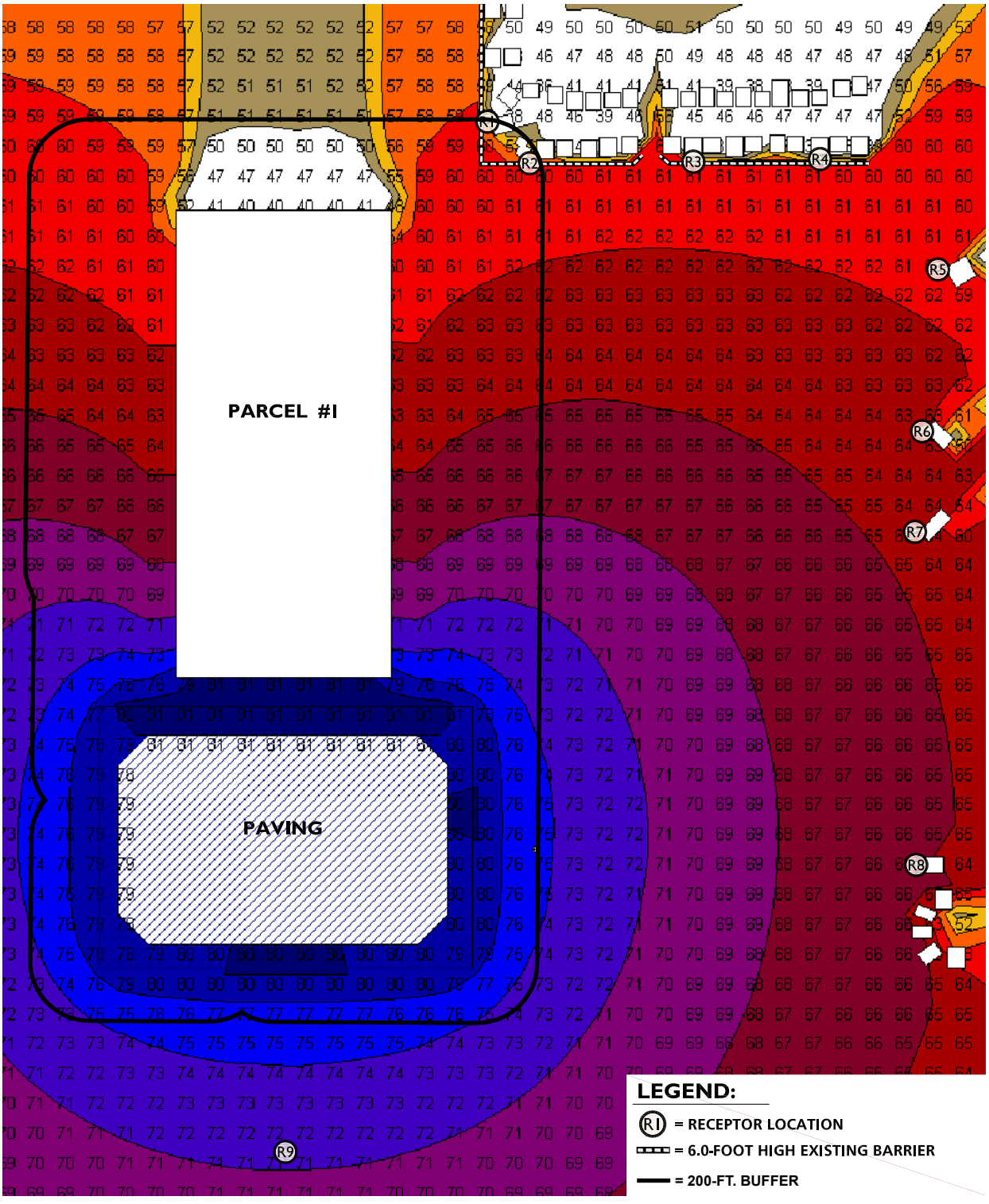
FIGURE 4.10-7
Unmitigated Construction Noise Levels - Phase 1 Paving



Source: Urban Crossroads (2011e Exhibit 9)

Not to Scale

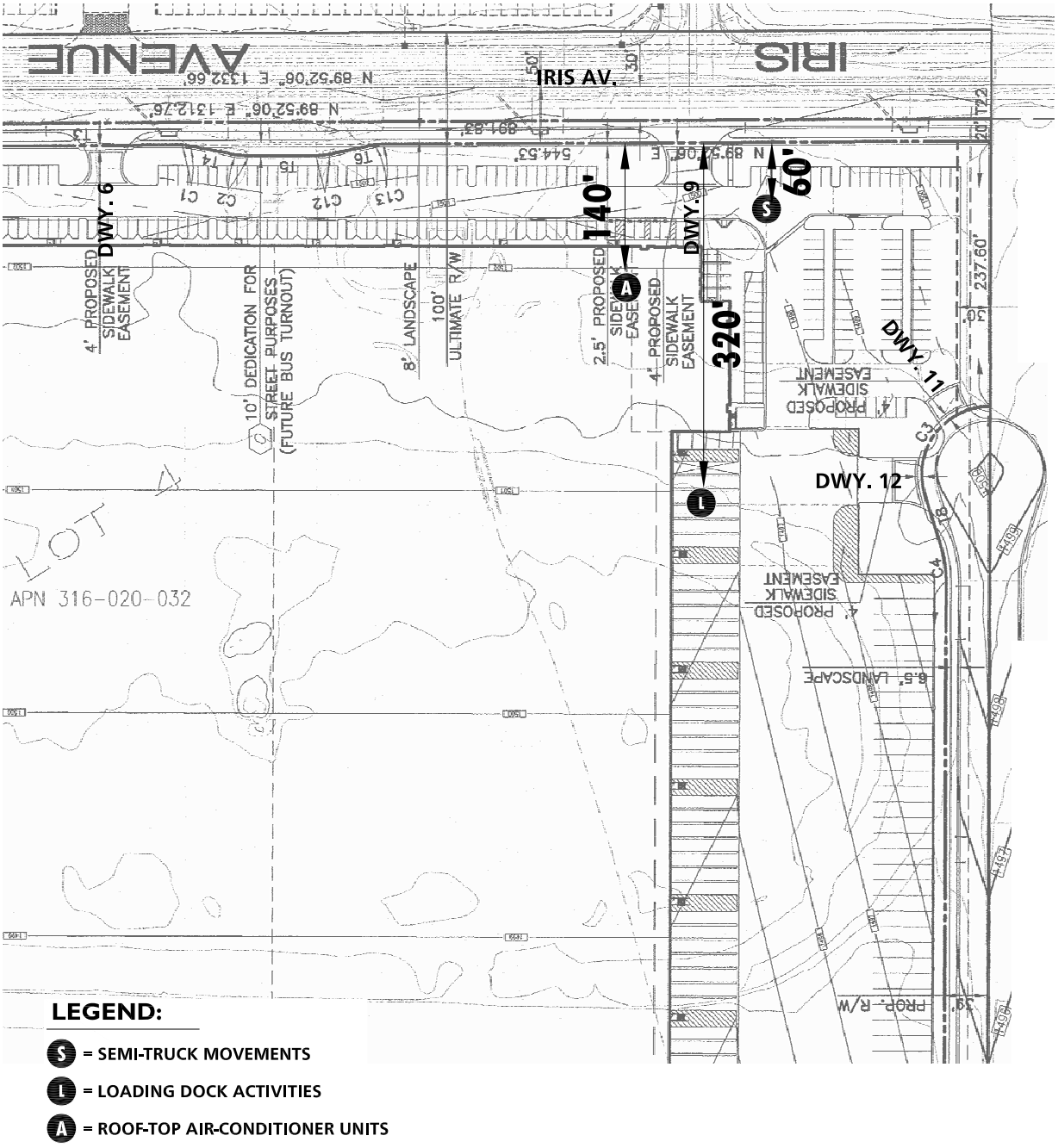
FIGURE 4.10-8
Unmitigated Construction Noise Levels - Phase 2 Building Construction



Source: Urban Crossroads (2011e Exhibit 10)

Not to Scale

FIGURE 4.10-9
Unmitigated Construction Noise Levels - Phase 2 Paving



Source: Urban Crossroads (11-15-11)

Not to Scale

FIGURE 4.10-10
Stationary Noise Impacts

Source: Urban Crossroads (11-15-11)

Not to Scale

FIGURE 4.10-11
March Air Reserve Base Noise Contours

4.11 TRANSPORTATION/TRAFFIC

The following analysis is based on a technical traffic study prepared by Urban Crossroads, Inc., titled "March Business Center, Traffic Impact Analysis, City of Moreno Valley, California" and dated November 3, 2011 (*Technical Appendix J*). The report considers potential traffic impacts associated with construction and operation of the proposed Project and recommends improvements to mitigate impacts considered significant in comparison to stated thresholds. The traffic study was prepared in accordance with the City of Moreno Valley Transportation Engineering Division's *Traffic Impact Analysis Preparation Guide* (August 2007).

4.11.1 STUDY AREA DESCRIPTION

The study area for purposes of determining traffic impacts (see Figure 4.11-1, *Project Study Area / Intersection Locations*) was defined in conformance with the requirements of the City of Moreno Valley's Traffic Impact Analysis (TIA) preparation guidelines. Based on these guidelines, the minimum area to be studied shall include any intersection of "Collector" or higher classification street, with "Collector" or higher classification streets, at which the proposed Project will add 50 or more peak hour trips. The intersections of Indian Street at Iris Avenue and Indian Street at Krameria Avenue were also included as analysis locations due to their proximity to the Project site although the Project is not anticipated to add 50 or more peak hour trips to either of those intersections. The "50 peak hour trip" criteria utilized by the City of Moreno Valley is consistent with the methodology employed by other jurisdictions throughout Riverside County and generally represents a threshold of trips at which a typical intersection would have the potential to be impacted. Although each intersection may have unique operating characteristics, this traffic engineering rule of thumb is a valid and proven way to establish a study area (Urban Crossroads 2011f). Intersections and connecting roadway segments that would not receive more than 50 peak hour trips from the Project are not included in the study area. Based on a comparison of the trip generation information provided in Table 4.11-16, *Project Trip Generation Summary*, with the trip distribution patterns depicted on Figure 4.11-18, *Project Passenger Car Trip Distribution*, and Figure 4.11-19, *Project Truck Trip Distribution*, the proposed Project would not contribute more than 50 peak hour trips to any road segments or intersections located within the City of Riverside; thus, intersections and roadway segments in the City of Riverside do not warrant analysis.

A. Roadway Segments

A total of 63 roadway segments were identified in the study area for analysis based on a review of the key roadway segments in which the Project is anticipated to contribute 50 or more peak hour trips. Table 4.11-1 provides a summary of the study area roadway segments, each with an ID number and jurisdiction noted. Italicized roadway segments in Table 4.11-1 indicate future roadway segments that would be developed as part of the Project and do not currently exist. Refer to Figure 4.11-1 for roadway locations.

B. Intersections

A total of 33 Project study area intersections (Table 4.11-2, *Intersection Analysis Locations*) were selected based on the City's TIA analysis methodology and input from the City of Moreno Valley Traffic Engineering Division. An ID number has been assigned to each intersection and jurisdictional locations have been identified. Italicized intersections in Table 4.11-2 would be developed as part of the Project and do not currently exist. Intersections are identified on Figure 4.11-1.

C. *Freeway Mainline Segments*

Consistent with California Department of Transportation (Caltrans) traffic study guidelines, there are eight (8) freeway mainline analysis locations in the Project study area, including segments on either side of the two interchanges where the proposed Project is anticipated to contribute 100 two-way peak hour trips. The study area freeway mainline segments are identified in Table 4.11-3, *Freeway Mainline Segment Analysis Locations*. All freeway mainline segments are under the jurisdiction of Caltrans.

D. *Freeway Merge/Diverge Ramp Junctions*

There are 10 merge/diverge ramp junction locations in the Project's study area for the I-215 freeway for both northbound and southbound directions of flow as shown in Table 4.11-4, *Freeway Merge/Diverge Ramp Junction Analysis Locations*. All freeway mainline segments are under the jurisdiction of Caltrans.

4.11.2 EXISTING CONDITIONS

Regional access is provided to the Project site via Interstate 215 (I-215), which is located approximately 1.4 miles west of the site, and State Route 60 (SR-60), located approximately 3.5 miles north of the site. The 75.05-acre Project site is located in the City of Moreno Valley, west of Indian Street, immediately south of Iris Avenue, and immediately east of Heacock Street. (Figure 4.11-8, *City of Moreno Valley General Plan Circulation Element*, and Figure 4.11-9, *City of Moreno Valley General Plan Roadway Cross-Sections*, show the City's roadway designations and cross-sections for the major roads surrounding the Project site in the City of Moreno Valley.)

A. *Existing Traffic Counts*

Manual AM and PM peak hour turning movement counts at study area intersections were collected by Urban Crossroads, Inc. in May 2011. The counts include the vehicle classifications as shown below, per City of Moreno Valley TIA requirements:

- Passenger Cars
- 2-Axle Trucks
- 3-Axle Trucks
- 4 or More Axle Trucks

A review of the traffic count data revealed that trucks represent between 0% and 12% of the overall vehicle mix at the various study area intersections. To represent the impact that large trucks, buses, and recreational vehicles have on traffic flow; all trucks were converted into Passenger Car Equivalents (PCEs) for the purpose of conducting the traffic analysis. By their size alone, these vehicles occupy the same space as two or more passenger cars. In addition, the time it takes for large vehicles to accelerate and slow down is also much longer than for passenger cars, and varies depending on the type of vehicle and number of axles. For the purpose of the Project's traffic impact analysis in *Technical Appendix J* and this EIR Subsection, a PCE factor of 1.5 was applied to 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4+-axle trucks to estimate each turning movement.

Existing (2011) average daily traffic (ADT) volumes on arterial highways throughout the study area are shown on Figure 4.11-2, *Existing (2011) Average Daily Traffic (ADT)*. Existing (2011) ADT

volumes are based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

PM Peak Hour (Approach Volume + Exit Volume) x 12 = Leg Volume

B. *Existing Roadway Conditions*

Based on the methodology presented below in Subsection 4.11.3B, of 46 existing roadway segments in the study area, 45 operate at an acceptable LOS (with 35 segments operating at LOS "A"). One (1) segment operates at an unacceptable LOS:

ID	Roadway Segment	Jurisdiction
40	Heacock Street from Gentian Avenue to Iris Avenue – LOS "F"	MV, MJPA

Table 4.11-5 summarizes the Existing (2011) conditions roadway segment capacity based on the LOS Thresholds identified in Table 4.11-11. Existing (2011) AM and PM peak hour intersection volumes are shown on Figure 4.11-3 (3a and 3b) and Figure 4.11-4 (4a and 4b). All of the traffic volumes illustrated on the exhibits and used in the traffic impact analysis are shown in terms of PCEs.

C. *Existing Intersection Conditions*

Figure 4.11-2 (5a and 5b), *Existing (2011) Number of Through Lanes and Intersection Controls*, shows the characteristics of each of the existing 17 Project study area intersections. (The other 16 intersections in the study area (see Table 4.11-2) are future planned intersections that do not currently exist.) Based on the methodology presented in Subsection 4.11.3B, *Intersection Capacity Analysis*, all but one of the existing study area intersections operate at acceptable LOS during peak hours. The following intersection experiences unacceptable LOS "F" during the PM peak hour only:

ID	Intersection Location	Jurisdiction
9	Heacock Street / Iris Avenue – LOS "F" during PM peak hour	MV, MJPA

Figure 4.11-6, *Existing (2011) Peak Hour Intersection Level of Service (LOS)*, summarizes the AM and PM peak hour study area intersection LOS under Existing (2011) conditions, consistent with the summary provided in Table 4.11-6, *Intersection Analysis for Existing (2011) Conditions.*

Traffic signal warrants for existing traffic conditions are based on existing peak hour intersection volumes. Based on the methodology presented in Subsection 4.11.3B, *Traffic Signal Warrant Analysis*, traffic signals appear to be warranted at the following three intersections under existing conditions:

ID	Intersection Location	Jurisdiction
8	Heacock Street / Gentian Avenue	MV, MJPA
9	Heacock Street / Iris Avenue	MV, MJPA
33	Indian Street / Harley Knox Boulevard	Perris

Source: Urban Crossroads, Inc., 2001f, Section 3.9.

D. Existing Freeway Ramp Conditions

A progression analysis was performed for the I-215 interchanges with Cactus Avenue and Harley Knox Boulevard to assess vehicle queues for the on- and off-ramps and along the arterials adjacent to the I-215 Freeway that may potentially impact peak hour operations at the ramp-to-arterial intersections. Table 4.11-7, *Existing Conditions (2011) Conditions Stacking Length Summary at I-215/ Cactus Avenue and I-215/Harley Knox Boulevard*, summarizes the AM and PM hour stacking lengths for the study area interchanges under existing conditions. The following movements are calculated to experience potential queuing issues during peak 95th percentile traffic flows:

Freeway Ramp Intersection Location	Movement
I-215 Southbound Ramps / Harley Knox Boulevard	Westbound Left Turn Lane
I-215 Northbound Ramps / Harley Knox Boulevard	Eastbound Left Turn Lane

Source: Urban Crossroads, Inc., 2001f, Section 3.10.

As shown in Table 4.11-8, *Existing (2011) I-215 Freeway Ramp Junction Merge/Diverge Analysis*, the I-215 Freeway ramp merge and diverge areas operate at acceptable LOS "E" or better during the peak hours under Existing (2011) traffic conditions.

E. Existing Freeway Segment Conditions

Existing (2011) mainline directional volumes for I-215 for the AM and PM peak hours are shown on Figure 4.11-7, *Existing (2011) I-215 Freeway Mainline Volumes*, and the two-way and directional splits for each I-215 freeway mainline segment, for each segment by peak, are shown in Table 4.11-9, *Existing (2011) Conditions for I-215 Directional Peak Hour Volumes*. As shown in Table 4.11-10, *Existing (2011) Conditions Basic Freeway Segment Analysis*, I-215 Freeway segments in the study operate at an acceptable LOS (LOS "E" or better) during the peak hours for Existing (2011) traffic conditions.

F. Existing Mass Transit

The Project study area is currently served by the Riverside Transit Agency (RTA) with bus services along Cactus Avenue, Indian Street, John F. Kennedy Drive, Iris Avenue, and Krameria Avenue through various routes (Routes 11, 19, and 20). The nearest stop for RTA Route 11 is approximately 1.0 mile north of the Project site, at the intersection of Meyer Drive and Riverside Drive. RTA Route 20 travels adjacent to the Project site's eastern boundary, along Indian Street between Krameria and Iris Avenues. The nearest stop for RTA Route 19 is approximately 0.5 miles east of the site at the intersection of Krameria Avenue and Perris Boulevard. (Urban Crossroads 2011f 37)

G. Existing Bicycle and Pedestrian Facilities

Field observations conducted by Urban Crossroads, Inc. on March 18, 2011 (Urban Crossroads 2001f 45) indicate nominal pedestrian and bicycle activity within the study area. Figure 4.11-10, *City of Moreno Valley Master Plan of Trails*, shows that there are no trails or planned trails within the study area. Figure 4.11-11, *City of Moreno Valley Bikeway Plan*, shows planned bikeway routes in the area. Under existing conditions, there are no formal trails, bikeways, or sidewalks adjacent to the Project site's frontage. There is a sidewalk along the north side of Iris Avenue, northeast of the Project site.

H. Existing Truck Routes

Figure 4.11-12, *City of Moreno Valley Truck Routes*, shows the designated truck route map for the City. Cactus Avenue, Frederick Street, Heacock Street, San Michele Road, Nandina Avenue, and Indian Street south of San Michele Road, are all designated truck routes. (The map also has been used to predict the route of truck traffic under future conditions.)

I. Existing Regional Transportation Programs and Plans

Following is a discussion of existing planning efforts, programs, and policies regarding transportation that have applicability to the proposed Project.

❑ County of Riverside Congestion Management Program (CMP)

The Riverside County CMP was prepared by the Riverside County Transportation Commission (RCTC) in accordance with Proposition 111, passed in June 1990. The CMP was established in the State of California to more directly link land use, transportation, and air quality and to prompt reasonable growth management programs that would more effectively utilize new and existing transportation funds, alleviate traffic congestion and related impacts, and improve air quality. Deficiencies along the CMP system must be identified when they occur so that improvement measures can be identified. Understanding the reason for these deficiencies and identifying ways to reduce the impact of future growth and development along a critical CMP corridor is intended to conserve scarce funding resources and help target those resources appropriately. In the vicinity of the Project site, I-215 is a CMP Roadway (RCTC 2010 2-5).

❑ City of Moreno Valley General Plan Circulation Element

The purpose of the City of Moreno Valley's Circulation Element is to ensure a complete, balanced, and well-maintained circulation system that relies on vehicular travel and transit, and incorporates alternative modes including bikeways and pedestrian facilities (Moreno Valley 2006a). A primary objective of the Circulation Element is to ensure that the effects of future new development on the City's transportation system are understood and that the improvements needed to support new growth are planned and properly funded. Refer to Figure 4.11-2 and Figure 4.11-8 for illustrations of the City's Circulation Element exhibits.

❑ Riverside County Integrated Project (RCIP)

The RCIP is Riverside County's comprehensive, three-part, integrated program to determine future habitat conservation, transportation, and housing and economic needs in Riverside County. The RCIP addresses traffic congestion by addressing future traffic and multi-model circulation issues through the Community & Environmental Transportation Acceptability Process (CETAP). This element of RCIP identifies the locations for new transportation facilities that will help benefit commuters and serve Riverside County's growing economy. Selection of new transportation corridors are intended to be integrated with decisions on land use and environmentally sensitive areas (Riverside County 2003a and 2003c).

❑ The Regional Transportation Plan (RTP)

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code §6500, also referred to as the Joint Powers Authority law. SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning

Agency (RTPA), and a Metropolitan Planning Organization (MPO). The Project site is within SCAG's regional authority. In 2008, SCAG prepared a Regional Transportation Plan (RTP) with goals to: 1) maximize mobility and accessibility for all people and goods in the region; 2) ensure travel safety and reliability for all people and goods in the region; 3) preserve and ensure a sustainable transportation system; 4) maximize productivity of the transportation system; 5) protect the environment, improve air quality, and promote energy efficiency; 6) encourage land use and growth patterns that complement the transportation investments and improve the cost-effectiveness of expenditures; and 7) maximize the security of the transportation system (SCAG 2008b). Performance measures and funding strategies also are included to ensure that the adopted goals are achieved through implementation. This EIR evaluates Project consistency with the 2008 RTP, which was the applicable SCAG transportation planning document at the time the NOP for this EIR was released for public review (June 2011). Since that time, SCAG released a 2012 Draft RTP; however, because that document was not available nor approved in June 2011, the 2008 RTP is applicable for evaluation purposes in this EIR.

- **AB 1358 California Complete Streets Act of 2008**

Assembly Bill 1358 (AB 1358), better known as the California Complete Streets Act of 2008 (Complete Streets Act), requires that, upon any substantive revision of a General Plan (as applicable to the proposed Project, the City of Moreno Valley's General Plan's Circulation Element), the circulation plan be modified to plan for a balanced, multimodal circulation system. The new circulation plan must be designed to meet the needs of all users of area roadways, defined to include motorists, bicyclists, pedestrians, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation.

4.11.3 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to transportation/traffic if the Project or any Project-related component would:

1. *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;*

2. *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;*

3. *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;*

4. *Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment);*

5. *Result in inadequate emergency access; or*

6. *Conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.*

A. Determining Significance of Impacts

❑ Roadway Segments and Intersections

Based on the City of Moreno Valley traffic study guidelines, a significant direct traffic impact under CEQA occurs when the addition of project traffic causes an intersection that operates at an acceptable level of service (i.e., LOS "D" or better) to fall to an unacceptable level of service (i.e., LOS "E" or "F"). For purposes of determining the significance of impacts in this Subsection:

- If an intersection is projected to operate at an acceptable level of service (i.e., LOS "D" or better) without the Project and the addition of Project traffic as measured by 50 or more peak hour trips is expected to cause the intersection to operate at an unacceptable level of service (i.e., LOS "E" or "F"), the impact is considered a significant direct impact.
- If an intersection is projected to operate at an unacceptable level of service (i.e., LOS "E" or "F") without the Project, and the Project contributes 50 or more peak hour trips, the impact is considered a significant direct impact.
- A significant cumulative impact is identified when a roadway segment or intersection is projected to operate below the LOS standards with the addition of future traffic and a Project-related traffic increase of 50 or more peak hour trips. Cumulative traffic impacts are created as a result of a combination of the proposed Project together with other future developments contributing to the overall traffic impacts requiring additional improvements to maintain acceptable LOS operations with or without the Project. The Project's contribution to a cumulatively significant impact can be reduced to less-than-significant if the Project is required to implement or fund its fair share of improvements designed to alleviate the potential cumulative impact. If full funding of future cumulative improvements is not reasonably assured, a temporary unmitigated cumulative impact may occur until the needed improvement is fully funded and constructed.

❑ Freeway Segments and Ramp Junctions

RCTC has determined that freeway segments and ramp junctions that operate below LOS "E" should be identified and improved to an acceptable LOS, however, specific criteria to identify project-related impacts is not specified by RCTC or in the Caltrans Traffic Impact Study guidelines.

For the purposes of the analysis in this Subsection and in accordance with the adopted Riverside County CMP, if a freeway segment is projected to operate at an acceptable level of service (i.e., LOS "E" or better) without the Project and the Project is expected to cause the facility to operate at an unacceptable level of service (i.e., LOS "F"), the Project's impact is considered significant. If the facility would operate at a deficient LOS without the Project, the addition of Project traffic would be considered a cumulative impact. Neither Caltrans nor the City of Moreno Valley has identified significance thresholds for queues at the freeway-to-arterial ramp junctions (Urban Crossroads 2011f 35-36). Regardless, data and analysis about queues at ramp junctions are given in *Technical Appendix J* and this Subsection (Impact Analysis, Threshold 2) for information disclosure. Impacts are considered significant on a direct and cumulative basis if the addition of Project traffic would cause a queuing issue that would not exist without the Project. If no new queuing issues are identified, impacts are considered to be less than significant and less than cumulatively considerable.

B. Methodology

❑ Level of Service

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS "A," representing completely free-flow conditions, to LOS "F," representing breakdown in flow resulting in stop-and-go conditions. LOS "E" represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

The definition of an intersection deficiency in the City of Moreno Valley is based on the City of Moreno Valley General Plan Circulation Element. The City of Moreno Valley General Plan states that target LOS "C" or LOS "D" be maintained along City roads (including intersections) wherever possible. Figure 4.11-13, *City of Moreno Valley Level of Service (LOS) Standards*, shows the LOS standards within the City.

Caltrans, the County of Riverside, the City of Riverside, and the City of Perris have established explicit LOS performance criteria related to determining the significance of impacts on the roadway system within their jurisdictions. As the March Joint Powers Authority does not have explicit LOS performance criteria, the performance criterion for the County of Riverside has been applied. Generally, LOS "D" is considered to be the limit of acceptable traffic operations during the peak hour in these jurisdictions. LOS "D" is therefore used as the significance threshold in this Subsection for these jurisdictions unless otherwise noted. RCTC has adopted LOS "E" as the minimum standard for intersections and segments along the CMP System of Highways and Roadways. Therefore, for the purposes of the traffic impact analysis, LOS "E" was considered to be the limit of acceptable traffic operations for the I-215 Freeway mainline segments and ramp junctions.

❑ Roadway Segment Capacity Analysis

Roadway segment operations are evaluated using the City of Moreno Valley Daily Roadway Capacity Values provided in the *City of Moreno Valley Transportation Engineering Division Traffic Impact Analysis (TIA) Preparation Guide* (dated August 2007). Per the City of Moreno Valley TIA guidelines, roadway segments within the study area should maintain the LOS capacities illustrated on Figure 4.11-13, *City of Moreno Valley Level of Service (LOS) Standards*. The daily roadway segment capacities for each type of roadway are summarized in Table 4.11-11, *Roadway Segment Capacity LOS Thresholds*. Roadway segment capacities are approximate figures only, and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet future traffic demands. These roadway capacities are "rule of thumb" estimates for planning purposes (Urban Crossroads 2011f 27). As such, where the ADT-based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis and progression analysis is undertaken.

❑ Intersection Capacity Analysis

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions. The following peak hours were selected for analysis because these hours are typically experience the most traffic during a 24-hour period:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)

- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

For signalized intersections, the City of Moreno Valley requires operations analysis based on the methodology described in Chapter 16 of the Highway Capacity Manual (HCM). Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections, LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 4.11-12, *Signalized Intersection LOS Thresholds*.

Per the Caltrans Guide for the Preparation of Traffic Impact Studies, the traffic modeling and signal timing optimization software package Synchro (Version 7 Build 759) was used by *Technical Appendix J* to analyze signalized intersections under Caltrans' jurisdiction, which include interchange to arterial ramps (i.e. I-215 Freeway ramps at Cactus Avenue and Harley Knox Boulevard). All other study area intersections within the City of Moreno Valley, City of Perris, March JPA, and the County of Riverside have been analyzed using the software package Traffix (Version 8.0 R1, 2008). The peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15 minute volumes. Common practice for LOS analysis is to use a peak 15-mintue rate of flow. However, flow rates are typically expressed in vehicles per hour. (The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g. PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate])). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs have been used for Existing (2011), Opening Year (2016) without Project, and Opening Year (2016) with Project traffic conditions. A PHF of 0.95 or higher has been used for future cumulative traffic conditions such as Horizon Year (2016) without and with Project conditions. Lastly, a PHF of 1.00 has been used for all intersections for long-range General Plan buildout without and with Project traffic conditions.

For unsignalized intersections, the City of Moreno Valley requires that operations be evaluated using the methodology described in Chapter 17 of the HCM. The LOS rating is based on the weighted average control delay expressed in seconds per vehicle, as shown in Table 4.11-13, *Unsignalized Intersection LOS Thresholds*.

At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole. All unsignalized study area intersections are analyzed using the Traffix software (Version 8.0 R1, 2008).

❑ Traffic Signal Warrant Analysis

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. The signal warrant criteria presented in the latest edition of the Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices* (MUTCD), as amended by the *MUTCD 2003 California Supplement*, is used for all study area intersections. For more information on signal warrant methodology, refer to Section 2.7 of *Technical Appendix J*.

Traffic signal warrant analyses were performed for all of the study area intersections that are not currently signalized. A signal warrant defines the minimum condition under which the installation of

a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. Signal warrants do not necessarily correlate with level of service. An intersection may satisfy a signal warrant condition and operate at or above LOS "C" or operate below LOS "C" and not meet a signal warrant.

❑ Freeway Ramp Progression Analysis

The study area includes segments of the I-215 Freeway from north of Cactus Avenue to south of Harley Knox Boulevard and includes the freeway-to-arterial interchanges of the I-215 Freeway with the Cactus Avenue and Harley Knox Boulevard ramps. Consistent with Caltrans requirements, the progression of vehicles has been assessed to determine potential queuing lengths at the freeway ramp intersections on Cactus Avenue and Harley Knox Boulevard and the I-215 Freeway.

The traffic progression analysis tool and HCM intersection analysis program, Synchro, was used to assess the potential needs of the intersections with traffic added from the proposed Project. Storage (turn-pocket) length recommendations at the ramps are based upon the 95th percentile queue resulting from the Synchro progression analysis. The 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes. The queue length reported is for the lane with the highest queue in the lane group. A vehicle is considered queued whenever it is traveling at less than 10 feet/second. For more information on queuing analysis methodology, refer to Section 2.4 of *Technical Appendix J*.

❑ Freeway Mainline Segment Analysis

I-215 in the study area, from north of Cactus Avenue to south of Harley Knox Boulevard, has been broken into segments defined by the freeway-to-arterial interchange locations. The freeway segments are evaluated in *Technical Appendix J* based upon peak hour directional volumes. The freeway segment analysis is based on the methodology described in Chapter 23 of the HCM and performed using HCS+ software. The performance measure preferred by Caltrans to calculate LOS is density. Density is expressed in terms of passenger cars per mile per lane. Table 4.11-14, *Freeway Mainline LOS Thresholds*, illustrates the freeway segment LOS thresholds for each density range utilized for the analysis.

The number of lanes for existing conditions was obtained from field observations conducted by Urban Crossroads, Inc. in May 2011. The RCTC has plans in place for the widening of I-215 through the study area; however, a schedule for the widening of I-215 between Nuevo Road in the City of Perris and Box Springs Road in the City of Riverside has not been set, due to the state's ongoing budget challenges (RCTC n.d.). The North I-215 Project will add a carpool lane (high-occupancy vehicle lane) in each direction to a 10.75-mile section of I-215, the northernmost section of the RCTC's widening efforts along this freeway. Once project costs and funding are determined, RCTC estimates a schedule of 8½ years until completion, to account for project development, final design, and construction (Urban Crossroads 2001f 30). As such, the future expansion of the I-215 Freeway has been assumed for "with improvements" conditions only and not assumed as the base condition in the basic freeway segment analysis.

❑ Freeway Merge/Diverge Ramp Junction Analysis

The freeway system in the study area has been broken into segments defined by freeway-to-arterial interchange locations resulting in eight existing on- and off-ramp locations. Although the HCM

indicates the influence area for a merge/diverge junction is 1,500 feet, the analysis presented in *Technical Appendix J* and this subsection has been performed at all ramp locations with respect to the nearest on- or off-ramp at each interchange in an effort to be consistent with Caltrans guidance/comments on other projects along the I-215 corridor (Urban Crossroads 2011f 31).

The merge/diverge analysis is based on the HCM Ramps and Ramp Junctions analysis method and performed using HCS+ software. The results (reported in passenger car/mile/lane) are calculated based on the existing number of travel lanes, number of lanes at the on- and off-ramps both at the analysis junction and at upstream and downstream locations (if applicable), and acceleration/deceleration lengths at each merge/diverge point. Table 4.11-15, *Merge and Diverge LOS Thresholds*, presents the merge/diverge area level of service thresholds for each density range utilized for this analysis.

❑ Background Traffic

Future year traffic forecasts have been based upon five (5) years of background (ambient) growth at 2% per year for 2016 traffic conditions. The ambient growth factor is intended to approximate regional traffic growth. The total ambient growth is 10.4% for 2016 traffic conditions (compounded growth of two% per year over five years). This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by known cumulative development projects analyzed by *Technical Appendix J*. According to information published by the Riverside County Center for Demographic Research (RCCDR) and used as the basis for completing the Western Riverside Council of Governments (WRCOG) Transportation Uniform Mitigation Fee (TUMF) Nexus Study – 2009 Program Update, the population of Western Riverside County is projected to increase by 62% in the period between 2007 and 2035, a compounded rate of approximately 1.73% annually. During the same period, employment in Western Riverside County is expected to increase by 111% or 2.71% annually. Therefore, the use of an annual growth rate of 2.0% is consistent with the anticipated regional growth in traffic volumes.

❑ Cumulative Impact Analysis

CEQA Guidelines Section 15130 requires that an EIR include the discussion of a Project's cumulative impacts. For the purpose of analyzing the proposed Project's cumulative effects on traffic, and in accordance with the City of Moreno Valley's Traffic Impact analysis Preparation Guide (2007), a comprehensive list of 51 other known approved or reasonably foreseeable development projects in the study area was compiled. See Figure 4.11-14, *Cumulative Development Projects Location Map*, for locations of the development projects considered. Information about each development project can be found in Section 4.6 of *Technical Appendix J*. These 52 projects are calculated to generate 232,739 net passenger car equivalent (PCE trip-ends per day during a typical weekday with approximately 20,195 net PCE vehicle trips during the AM peak hour and 23,306 net PCE vehicle trips during the PM peak hour).

Based on the identified trip distribution patterns for the cumulative development projects on arterial highways throughout the study area, cumulative development ADT volumes, AM peak hour, and PM peak hour intersection turning movement volumes are shown on Figure 4.11-15, Figure 4.11-16 (16a and 16b), and Figure 4.11-17 (17a and 17b), respectively.

4.11.4 IMPACT ANALYSIS

Threshold 1:	***Would the Project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?***

The Project proposes improvements to the site-adjacent roadways Iris Avenue and Heacock Street, proposes to construct future Cosmos Street along the property's eastern boundary, and proposes to construct a segment of Krameria Avenue through the Project site to connect Cosmos Street with Heacock Street. These proposed roadway improvements are described in Section 3.0, Project Description, and will be enforced as part of the Project's Conditions of Approval, which will be issued by the City of Moreno Valley prior to consideration of the proposed Project by the City Council. The construction of these roadway improvements is assumed throughout the analyses. The analysis of Threshold 1 focuses on potential impacts to local roadways, based on acceptable LOS standards established by the City of Moreno Valley General Plan and the general plans of surrounding jurisdictions. Refer to Threshold 2 for an analysis of potential impacts to I-215 based on acceptable LOS standards established by the Riverside County Congestion Management Plan.

A. Project Trip Generation and Distribution

Trip generation represents the amount of traffic that is attracted to and produced by a development project. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses proposed for a given development. In an effort to accurately estimate the number of vehicle trips to be generated by the proposed Project, three trip generation sources were evaluated: 1) the City of Fontana *Truck Trip Generation Study*, August 2003) the South Coast Air Quality Management District's 2011 study of trip generation rates for high cube warehouse distribution centers, and 3) the Institute of Transportation Engineers (ITE) *Trip Generation*, 8th Edition, 2008. Detailed information about each of these sources and the methodology used to determine the Project's trip generation is provided in Section 4.1 of *Technical Appendix J.*

Assumed to be built and fully operational by as early as Year 2016, the Project is proposed to consist of 1,380,246 square feet of high-cube/distribution warehouse use; 87,429 square feet of warehousing use; and 16,732 square feet of general light industrial use. Using that development potential, the proposed Project would produce an estimated 4,400 daily vehicle trips, including 298 during the AM Peak Hour and 328 during the PM Peak Hour. A Summary of the Project's Trip Generation is provided in Table 4.11-16, *Project Trip Generation Summary*. The traffic reducing potential of using public transit, walking, or bicycling by employees of the Project site has not been considered, which have the potential to reduce the forecasted traffic volumes. Because these factors were not considered in the analysis (and would reduce the volume of Project-related vehicular traffic if considered), the analysis of impacts to transportation/traffic in this subsection represents a conservative analysis of potential impacts.

Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that would be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the routes where Project traffic would

distribute. The Project trip distribution was developed based on anticipated travel patterns to and from the Project site for both passenger cars and truck traffic. The total volume on each roadway was divided by the Project's total traffic generation to indicate the percentage of Project traffic that would use each component of the regional roadway system in each relevant direction. The Project passenger car trip distribution pattern is graphically depicted on Figure 4.11-18, *Project Passenger Car Trip Distribution*, and the Project truck trip distribution pattern is graphically depicted on Figure 4.11-19, *Project Truck Trip Distribution*.

The assignment of traffic from the Project area to the adjoining roadway system is based on the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of Project occupancy (2016). Based on the identified Project traffic generation and trip distribution patterns, Project average daily traffic (ADT) volumes for the weekday are shown on Figure 4.11-20, *Project (2016) Average Daily Traffic (ADT)*, and Project AM and PM peak hour intersection turning movement volumes are shown on Figure 4.11-21 (21a and 21b) and Figure 4.11-22 (22a and 22b).

B. Analysis Scenarios

Although Phase 1 of the proposed Project is anticipated to be occupied in Year 2014/2015, and Phase 2 of the proposed Project would be occupied as early as Year 2016, the analysis in this subection assumes that both phases of the proposed Project would be occupied in Year 2016. Pursuant to the City of Moreno Valley's Traffic Impact Analysis Preparation Guide, all traffic impact analyses must be "…projected to the year that the project is estimated to be complete (minimum of five years)." (Moreno Valley 2007 5). The Notice of Preparation for this EIR was distributed for public review in June 2011; thus, the opening year for both phases of the proposed Project is assumed to be five years later (Year 2016). Therefore, for the purpose of the traffic impact analysis presented below, potential impacts to traffic and circulation are assessed for each of the following conditions:

- Existing (2011) plus Project Conditions (1 scenario) (E+P)
- Opening Year (2016) without Project and Opening Year (2016) with Project (2 scenarios) – ambient growth only (E+A and E+A+P)
- Horizon Year (2016) without Project and Horizon Year (2016) with Project (2 scenarios) – ambient growth and cumulative development projects (E+A+C and E+A+P+C)
- General Plan Buildout Conditions without Project and General Plan Buildout Year with Project (2 scenarios) – analysis performed for select intersections within close proximity to the proposed Project and based on data from the Moreno Valley Traffic Model.

Information for Existing (2011) conditions is disclosed above in Subsection 4.11.2 and represents the baseline traffic conditions as they existed at the time this analysis was prepared (2011).

The Existing (2011) plus Project (E+P) analysis determines direct Project-related traffic impacts that would occur on the existing roadway system in the theoretical scenario of the Project being placed upon existing conditions. Because the Project is not expected to be fully built and occupied until 2016, the E+P scenario is presented to disclose direct impacts as required by CEQA.

The Opening Year (2016) analysis determines the Project-related traffic impacts based on a comparison of the Existing plus Ambient Growth plus Project (E+A+P) traffic conditions to the

Existing (2011) and Existing plus Ambient Growth (E+A) conditions. The Opening Year (2016) conditions analysis uniquely identifies the specific traffic impacts associated with the development of the proposed Project. To account for background traffic, a total ambient growth from Existing (2011) conditions of 10.4% (2% per year x 5 years, compounded annually) is included for Opening Year (2016) conditions. Cumulative development projects are not included as part of the Opening Year (2016) analysis. The Opening Year (2016) analysis is intended to identify the direct impacts associated solely with the development of the proposed Project based on the expected background growth within the study area.

The Horizon Year (2016) conditions analysis is utilized to determine if improvements funded through local and regional transportation mitigation fee programs such as the TUMF program, City of Moreno Valley Development Impact Fee (DIF) program, or other approved funding mechanism (Community Facilities District, etc.) can accommodate the cumulative traffic at the target LOS identified in the City of Moreno Valley General Plan. If the "funded" improvements can provide the target LOS, then the Project's payment into the TUMF and DIF is considered as cumulative mitigation as imposed through Conditions of Approval applied to the Project by the City of Moreno Valley. If other improvements are needed beyond the "funded" improvements (such as localized improvements to non-TUMF or non-DIF facilities), they are identified as such.

To account for background traffic in Horizon Year 2016, 52 other known cumulative development projects in the study area were included in addition to the 10.4% ambient. This comprehensive list of cumulatively projects was compiled from information provided by the City of Moreno Valley Planning Department in April 2011 and research conducted in April and May 2011 to identify pending development projects and development applications on file with adjacent jurisdictions within an approximate three-mile radius of the site, including portions of the City of Perris, City of Riverside, unincorporated Riverside County, and the March JPA.

Lastly, because the Project proposes a minor network change to a City of Moreno Valley Circulation Element roadway (the realignment and reclassification of a planned segment of Krameria Avenue through the Project site as described in Subsection 3.3.4 of this EIR), a General Plan Buildout analysis also was performed to assess long-term impacts. Because the Project's proposed land use is consistent with the adopted Specific Plan for the area (the Moreno Valley Industrial Area Plan; Specific Plan No. 208), and the network change for Krameria Avenue is not anticipated to substantially impact regional roadways in the area, only study area intersections in close proximity to the proposed Project are required to be assessed for General Plan Buildout conditions. This analysis determines if the proposed change to the City of Moreno Valley Circulation Element is adequate to accommodate projected traffic at the target LOS for future buildout conditions, or if additional mitigation is necessary.

C. Existing (2011) Plus Project Traffic Analysis (E+P)

For purposes of full disclosure and in an effort to satisfy CEQA Guidelines Section 15125(a), this subsection presents an analysis of existing traffic volumes plus traffic generated by the proposed Project (Existing plus Project, or E+P). The reason this particular analysis scenario is provided is to disclose the potential for direct impacts to the existing environment as required by CEQA. The E+P scenario rarely materializes as an actual scenario in the real world. The time period between the date a Notice of Preparation for an EIR is issued and the date project buildout occurs can often be a period of several years or more. (In the case of the proposed Project, the time period estimated between this EIR's NOP (2011) and estimated Project buildout (2016) is five (5) years.) During this time period,

conditions are not static. Other projects are being constructed, the transportation network is evolving, and traffic patterns are changing. Therefore, the E+P scenario is very unlikely to materialize in real world conditions and thus does not accurately describe the environment that exists when a particular project is constructed and becomes operational (Urban Crossroads 2011f 99). Regardless, the E+P scenario is analyzed to satisfy CEQA requirements to identify the Project's impacts to the existing environment.

Average daily traffic (ADT) for the E+P conditions is shown on Figure 4.11-23 and AM and PM peak hour intersection turning movement volumes for E+P are shown on Figure 4.11-24 (24a and 24b) and Figure 4.11-25 (25a and 25b).

❑ E+P Roadway Segments Analysis

Roadway segment capacities for E+P conditions were analyzed based on the methodology discussed in Subsection 4.11.3B. Out of 63 study area roadway segments (Table 4.11-1, *Roadway Segment Analysis Locations*), 61 would operate at an acceptable LOS (with 52 segments operating at LOS "A") and two would operate at an unacceptable LOS with the addition of Project traffic to the existing condition. The E+P conditions roadway segment analysis indicates that the following two locations are anticipated to operate at an unacceptable LOS.

ID	Roadway Segment	Jurisdiction
5	Cactus Avenue west of Frederick Street – LOS "E"	MV, MJPA
40	Heacock Street from Gentian Avenue to Iris Avenue – LOS "F"	MV, MJPA

Source: Urban Crossroads, Inc. 2011f, Section 5.3

Table 4.11-17, *Existing Plus Project (E+P) Conditions Roadway Volume/Capacity (V/C) Analysis*, summarizes the E+P conditions roadway segment capacity analysis based on the LOS thresholds identified in Table 4.11-11.

The operation of Cactus Avenue west of Frederick Street (ID #5) is projected to operate at LOS "E," whereas the threshold for acceptable operation established by the City of Moreno Valley General Plan and March JPA General Plan is LOS "D." This is considered a significant direct impact of the proposed Project. A review of the peak hour operations at the adjacent intersection of Frederick Street and Cactus Avenue for E+P conditions indicates that the intersection is projected to operate at an acceptable LOS (see below discussion of E+P intersections). As such, it would appear that widening of this segment of Cactus Avenue is not necessary to achieve acceptable peak hour operations. The roadway segment immediately west of Frederick Street to Veterans Way is the only segment in the area not improved to three travel lanes in the westbound direction and is the likely cause of this roadway segment operating at an unacceptable LOS in the E+P scenario. There is warehouse project (Plot Plan PA08-0072) proposed on the northwest corner of Frederick Street and Cactus Avenue that is currently in the City of Moreno Valley plan check process and is anticipated to begin construction in 2012. This warehouse project is conditioned to construct a five-lane section (three westbound and two eastbound lanes with a raised median) along Cactus Avenue, west of Frederick Street. The City of Moreno Valley anticipates that once this warehouse project constructs the five-lane section on Cactus Avenue, west of Frederick Street, there would no longer be a Project-related impact at this location.

The segment of Heacock Street from Gentian Avenue to Iris Avenue would operate at LOS "F," whereas the threshold for acceptable operation established by the City of Moreno Valley General Plan and March JPA General Plan is LOS "D." This segment also operates at LOS "F" under existing conditions without the addition of Project traffic (refer to Subsection 4.11.2C). Because the Project would contribute more than 50 peak hour trips to an already unacceptable LOS, the impact is identified as a significant direct impact.

❑ E+P Intersections Analysis

E+P peak hour traffic operations were evaluated for study area intersections based on the methodologies presented in Subsection 4.11.3B. In the E+P condition, of the 33 existing study area intersections, 32 intersections would operate at acceptable LOS during the peak hours and one intersection would operate at unacceptable LOS during the peak hours. The E+P conditions operations analysis shows that the following intersection would experience unacceptable LOS "F" conditions during the PM peak hour only, whereas the acceptable LOS is "D."

ID	Intersection Location	Jurisdiction
9	Heacock Street / Iris Avenue – LOS "F" during PM peak hour	MV, MJPA

Figure 4.11-23, *Existing Plus Project (E+P) Peak Hour Intersection Level of Service (LOS)*, summarizes the AM and PM peak hour study area intersection LOS for the Existing (2011) conditions plus the Project, consistent with the summary provided in Table 4.11-18, *Intersection Analysis for Existing Plus Project (E+P) Conditions*.

Comparing Table 4.11-6 with Table 4.11-18 (Intersection Analyses for Existing (2011) conditions and E+P conditions), the intersection of Heacock Street and Iris Avenue (ID # 9) in the PM peak hour operates at LOS "F" under both Existing (2011) and E+P scenario, whereas the City of Moreno Valley General Plan and March JPA General Plan establish an acceptable LOS of "D." Because the Project would add more than 50 peak hour trips to these intersections (as shown by comparing Figure 4.11-2 and Figure 4.11-4 (Existing (2011) AM and PM Peak Hour Intersection Volumes) with Figure 4.11-24 and Figure 4.11-25 (E+P AM and PM Peak Hour Intersection Volumes)), the impact is identified as a significant direct impact.

D. Opening Year Traffic Analysis (Opening Year (2016))

The Opening Year (2016) conditions analysis determines the Project-related traffic impacts based on a comparison of the Existing plus Ambient Growth plus Project (E+A+P) traffic conditions to the Existing (2011) and Existing plus Ambient Growth (E+A) conditions. The Opening Year (2016) conditions analysis uniquely identifies the specific traffic impacts associated with the development of the proposed Project. To account for background traffic, a total ambient growth from conditions of 10.4% (2% per year x 5 years, compounded annually) is included for Opening Year (2016) conditions. The Opening Year (2016) analysis is intended to identify the project-specific impacts associated solely with the development of the proposed Project based on the expected background growth within the study area.

The lane configurations and traffic controls assumed to be in place for Opening Year (2016) conditions are consistent with those shown previously on Figure 4.11-2 for existing conditions, with the exception of Project driveways and those facilities assumed to be constructed by the Project to

provide site access, which are also assumed to be in place for Opening Year (2016) with Project conditions only.

ADT volumes for the Opening Year (2016) Without Project (E+A) conditions are shown on Figure 4.11-27, and AM and PM peak hour intersection turning movement volumes for Opening Year (2016) Without Project (E+A) conditions are shown on Figure 4.11-28 (28a and 28b) and Figure 4.11-29 (29a and 29b). ADT volumes for the Opening Year (2016) With Project (E+A+P) conditions are shown on Figure 4.11-31, and AM and PM peak hour intersection turning movement volumes for Opening Year (2016) With Project (E+A+P) conditions are shown on Figure 4.11-32 (32a and 32b) and Figure 4.11-33 (33a and 33b).

❑ Opening Year (2016) Roadway Segments Analysis

Roadway segment capacities for Opening Year (2016) Without Project (E+A) conditions were determined based on the methodology discussed in Subsection 4.11.3B. Of the 63 roadway segments in the study area, 60 would operate at an acceptable LOS under the E+A scenario and three (3) segments (ID #5, #15, and #40) would operate at an unacceptable LOS under the E+A scenario. The E+A conditions roadway segment analysis indicates that the following roadway segments are anticipated to operate at an unacceptable LOS without the addition of Project traffic:

ID	Roadway Segment	Jurisdiction
5	Cactus Avenue west of Frederick Street – LOS "E"	MV, MJPA
16	Iris Avenue west of Indian Street – LOS "E"	MV
40	Heacock Street from Gentian Avenue to Iris Avenue – LOS "F"	MV, MJPA

Source: Urban Crossroads, Inc. 2011f, Section 6.5.

With the addition of Project traffic for Opening Year (2016) (E+A+P), the same three (3) roadway segments and an additional three (3) segments (ID #3, #4, and #33) are anticipated to operate at an unacceptable LOS:

ID	Roadway Segment	Jurisdiction
3	Cactus Avenue from I-215 NB On-Ramp to I-215 NB Ramps – LOS "E"	RivCo
4	Cactus Avenue east of I-215 Freeway (I-215 to Elsworth Street) – LOS "E"	RivCo, MV
5	Cactus Avenue west of Frederick Street (Veterans Way to Frederick Street) – LOS "E"	MV, MJPA
16	Iris Avenue west of Indian Street – LOS "E"	MV
33	Harley Knox Boulevard west of Indian Street – LOS "E"	Perris
40	Heacock Street from Gentian Avenue to Iris Avenue – LOS "F"	MV, MJPA

Source: Urban Crossroads, Inc. 2011f, Section 6.5.

Table 4.11-17, *Opening Year (2016) Conditions Roadway Volume/Capacity (V/C) Analysis*, summarizes the Opening Year (2016) Without Project (E+A) and With Project (E+A+P) conditions roadway segment capacity analysis based on the LOS thresholds identified in Table 4.11-11.

The addition of Project traffic to the roadway network would cause three roadway segments (ID #s 3, 4, and 33) to degrade in LOS from acceptable to unacceptable levels (based on the LOS thresholds

established by governing General Plans), resulting in a significant cumulative impact. Additionally, the Project would contribute 50 or more peak hour trips to three roadway segments that would operate at unacceptable LOS without the Project. With the addition of at least 50 peak hour trips, the Project would make a cumulatively considerable contribution to this significant cumulative impact. Analysis of these six (6) segments conducted by Urban Crossroads indicates that the widening of these roadway segments is not necessary to achieve acceptable levels of service. Acceptable LOS can be achieved by addressing intersection deficiencies that adversely affect the operation of these segments. (Urban Crossroads 2001f 132 and 135)

❑ Opening Year (2016) Intersections Analysis

Opening Year (2016) Without Project (E+A) peak hour traffic operations were evaluated for study area intersections based on the methodologies presented in Subsection 4.11.3B. In the E+A condition, of the 33 study area intersections, 31 intersections would operate at an acceptable LOS during the peak hours. The following two (2) intersections would operate at unacceptable LOS during the peak hours:

ID	Intersection Location	Jurisdiction
9	Heacock Street / Iris Avenue – LOS "F" during PM peak hour	MV, MJPA
29	Indian Street / Iris Avenue – LOS "E" during AM peak hour	MV

Source: Urban Crossroads, Inc. 2011f, Section 6.4.

Figure 4.11-32 (32a and 32b) and Figure 4.11-33 (33a and 33b), *Opening Year (2016) With Project (E+A+P) Peak Hour Intersection Level of Service (LOS)*, summarizes the AM and PM peak hour study area intersection LOS for E+A+P conditions. Resulting ADT Volumes are indicated on Figure 4.11-34. As shown on Table 4.11-20, the addition of Project traffic (E+A+P) would worsen the peak hour operations of these the two intersections identified above (ID #9 and #29) and cause an additional intersection (ID # 8) to operate at an unacceptable LOS:

ID	Intersection Location	Jurisdiction
8	Heacock Street / Gentian Avenue – LOS "E" during PM peak hour	MV, MJPA
9	Heacock Street / Iris Avenue – LOS "E" during the AM peak hour and LOS "F" during the PM peak hour	MV, MJPA
29	Indian Street / Iris Avenue – LOS "E" during the AM peak hour	MV

Source: Urban Crossroads, Inc. 2011f, Section 6.4.

Because the Project would add more than 50 peak hour trips to the two intersections of Heacock Street at Gentian Avenue (ID #8) and Heacock Street at Iris Avenue (ID #9), the impact is identified as a significant direct impact. While the intersection of Indian Street at Iris Avenue (ID #29) is anticipated to operate at an unacceptable LOS "E" with the addition of Project traffic (E+A+P), the Project would not contribute more than 50 peak hour trips to this intersection; therefore, based on the significance criteria cited in Subsection 4.11.3A, the Project's impact to that intersection (ID #29) is considered less than significant.

E. Horizon Year Traffic Analysis (Horizon Year (2016))

As discussed in Subsection 4.02, CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a proposed project. The Horizon Year (2016) analysis determines the Project-related traffic impacts based on a comparison of the traffic volumes expected in 2016 without and with development of the proposed Project, including background traffic from cumulative development projects. To account for background traffic, 52 other known cumulative development projects in the study area were included in addition to 10.4% of ambient growth (refer to Subsection 4.11.3B, *Cumulative Impact Analysis*, for a description of the methodology used for this analysis. The analysis of cumulative traffic impacts for Horizon Year (2016) uses the methodology that is required by the City of Moreno Valley Transportation Engineering Division's Traffic Impact Analysis Preparation Guide (August 2007).

The lane configurations and traffic controls assumed to be in place for Horizon Year (2016) conditions are consistent with those shown previously on Figure 4.11-2 for existing conditions, with the exception of Project driveways and those facilities assumed to be constructed by the Project to provide site access (described in Section 3.0, Project Description and will be enforced by the Project's Conditions of Approval), which are also assumed to be in place for Horizon Year (2016) with Project conditions only.

ADT volumes for the Horizon Year (2016) Without Project (E+A+C) conditions are shown on Figure 4.11-35, and AM and PM peak hour intersection turning movement volumes for Horizon Year (2016) Without Project (E+A+C) conditions are shown on Figure 4.11-36 (36a and 36b) and Figure 4.11-37 (37a and 37b). ADT volumes for the Horizon Year (2016) With Project (E+A+C+P) conditions are shown on Figure 4.11-38, and AM and PM peak hour intersection turning movement volumes for Horizon Year (2016) With Project (E+A+C+P) conditions are shown on Figure 4.11-39 (39a and 39b) and Figure 4.11-40 (40a and 40b).

❑ Horizon Year (2016) Roadway Segments Analysis

Roadway segment capacities for Horizon Year (2016) Without Project (E+A+C) conditions were analyzed based on the methodology discussed in Subsection 4.11.3B. Out of 63 study area roadway segments, 47 would operate at an acceptable LOS. The following 16 roadway segments would operate at an unacceptable LOS:

ID	Roadway Segment	Jurisdiction
2	Cactus Avenue between I-215 SB Ramps to I-215 NB On-Ramp – LOS "F"	RivCo
3	Cactus Avenue between I-215 NB On-Ramp to I-215 NB Ramps – LOS "F"	RivCo
4	Cactus Avenue east of I-215 Freeway (I-215 to Elsworth Street) – LOS "F"	RivCo, MV
5	Cactus Avenue west of Frederick Street (Veterans Way to Frederick Street) – LOS "F"	MV, MJPA
6	Cactus Avenue east of Frederick Street – LOS "F"	MV, MJPA
7	Cactus Avenue west of Heacock Street – LOS "E"	MV, MJPA
16	Iris Avenue west of Indian Street – LOS "F"	MV
26	San Michele Road between Heacock Street and Indian Street – LOS "F"	MV
32	Harley Knox Boulevard east of I-215 Freeway – LOS "F"	Perris
33	Harley Knox Boulevard west of Indian Street – LOS "F"	Perris

ID	Roadway Segment	Jurisdiction
34	Harley Knox Boulevard east of Indian Street – LOS "E"	Perris
40	Heacock Street between Gentian Avenue to Iris Avenue – LOS "F"	MV, MJPA
46	Heacock Street north of San Michele Road – LOS "F"	MV, MJPA
60	Indian Street between San Michele Road to Nandina Avenue – LOS "F"	MV
61	Indian Street south of Nandina Avenue – LOS "F"	MV
62	Indian Street north of Harley Knox Boulevard – LOS "F"	Perris

Source: Urban Crossroads, Inc. 2011f , Section 7.5.

Table 4.11-21, *Horizon Year (2016) Conditions Roadway Volume/Capacity (V/C) Analysis*, summarizes the Horizon Year (2016) Without Project (E+A+C) and With Project (E+A+C+P) conditions roadway segment capacity analysis based on the LOS thresholds identified in Table 4.11-11. As shown in Table 4.11-21, there are no additional roadway segments that are anticipated to operate at unacceptable LOS with the addition of Project traffic. However, because the Project would contribute more than 50 peak hour trips to these roadway segments, the Project would make a cumulatively considerable contribution to this significant cumulative impact. An analysis of these roadway segments by Urban Crossroads concluded that all of the roadway segments could be improved to acceptable LOS with improvements to intersections (including the addition of some through lanes) without the need for additional roadway widening (Urban Crossroads 2011f 163).

❑ Horizon Year (2016) Intersections Analysis

Horizon Year (2016) Without Project (E+A+C) peak hour traffic operations were evaluated for study area intersections based on the methodologies presented in Subsection 4.11.3B. In the Horizon Year (2016) Without Project (E+A+C) condition, of the 33 study area intersections, 21 intersections would operate at acceptable LOS during the peak hours. As shown on Table 4.11-22, *Intersection Analysis for Horizon Year (2016) Conditions*, the following 12 intersections would operate at unacceptable LOS "E" or "F" during one or both of the peak hours for Horizon Year (2016) Without Project (E+A+C) conditions:

ID	Intersection Location	Jurisdiction
1	I-215 Southbound Ramps / Cactus Avenue – LOS "F" during AM and PM peak hours	Caltrans
2	I-215 Southbound Ramps / Harley Knox Boulevard – LOS "F" during AM and PM peak hours	Caltrans
3	I-215 Northbound Ramps / Cactus Avenue – LOS "F" during AM and PM peak hours	Caltrans
4	I-215 Northbound Ramps / Harley Knox Boulevard – LOS "F" during AM and PM peak hours	Caltrans
5	Frederick Street / Cactus Avenue – LOS "F" during AM peak hour	MV, MJPA
6	Heacock Street / Cactus Avenue – LOS "F" during AM peak hour; LOS "E" during PM peak hour	MV, MJPA
8	Heacock Street / Gentian Avenue – LOS "F" during AM and PM peak hours	MV, MJPA

ID	Intersection Location	Jurisdiction
9	Heacock Street / Iris Avenue – LOS "F" during AM and PM peak hours	MV, MJPA
14	Heacock Street / San Michele Road – LOS "F" during AM peak hour; LOS "E" during PM peak hour	MV, MJPA
31	Indian Street / San Michele Road – LOS "F" during AM and PM peak hours	MV
32	Indian Street / Nandina Avenue – LOS "F" during AM and PM peak hours	MV
33	Indian Street / Harley Knox Boulevard – LOS "F" during AM and PM peak hours	Perris

Source: Urban Crossroads, Inc., 2011f, Section 7.4

Figure 4.11-41, *Horizon Year (2016) Without Project (E+A+C) Peak Hour Intersection Level of Service (LOS)*, summarizes the AM and PM peak hour study area intersection LOS for Horizon Year (2016) Without Project (E+A+C) conditions. Figure 4.11-42, *Horizon Year (2016) With Project (E+A+C+P) Peak Hour Intersection Level of Service (LOS)*, summarizes the AM and PM peak hour study area intersection LOS for Horizon Year (2016) With Project (E+A+C+P) conditions, consistent with the summary provided in Table 4.11-22.

The proposed Project would contribute more than 50 peak hour trips to the 12 intersections listed above (as shown by comparing Figure 4.11-36 (36a and 36b) and Figure 4.11-37 (37a and 37b) (Horizon Year (2016) (E+A+C) with Figure 4.11-39 (39a and 39b) and Figure 4.11-40 (40a and 40b) (E+A+C+P). Thus, the Project would make a cumulatively considerable contribution to this significant cumulative impact. Additionally, the addition of Project traffic (E+A+C+P) would cause one additional intersection (Heacock Street at Krameria Avenue (EW), ID #12) to worsen from an acceptable to unacceptable LOS, resulting in a significant cumulative impact.

ID	Intersection Location	Jurisdiction
12	Heacock Street / Krameria Avenue (EW) – LOS "F" during the PM peak hour	MV, MJPA

For Horizon Year (2016) without Project (E+A+C) conditions, *Technical Appendix J* indicates that a traffic signal appears to be warranted at Heacock Street/Krameria Avenue (EW), with or without the addition of Project traffic.

F. General Plan Buildout Conditions

The Project proposes a minor network change to a City of Moreno Valley Circulation Element roadway segment (Krameria Avenue); therefore, a General Plan buildout analysis was performed to assess the potential for long-term impacts to the transportation system. Specifically, the Project proposes to realign and reclassify the future planned extension of Krameria Avenue (EW) through the Project site from a minor arterial to an industrial collector, as described in EIR Section 3.0. Because the proposed Project is otherwise consistent with the City of Moreno Valley's General Plan and the adopted Specific Plan for the area (the Moreno Valley Industrial Area Plan; Specific Plan No. 208), and the network change is not anticipated to substantially impact regional roadways in the area, only study area intersections in close proximity to the proposed Project were assessed for General Plan buildout conditions. This analysis determines if the proposed change to the City of Moreno Valley Circulation Element is adequate to accommodate future traffic volumes at the target LOS, or if additional mitigation is necessary.

❑ General Plan Buildout Intersections Analysis

The proposed Circulation Element change would only affects intersections in close proximity to the Project site; therefore, the City of Moreno Valley determined that 20 existing and future intersections and their connecting roadway segments warranted an analysis of General Plan buildout conditions:

ID	Intersection Location	Jurisdiction
9	Heacock Street / Iris Avenue	MV, MJPA
10	Heacock Street / Driveway 1	MV, MJPA
11	Heacock Street / Driveway 2	MV, MJPA
12	Heacock Street / Krameria Avenue (EW)	MV, MJPA
13	Heacock Street / Driveway 3	MV, MJPA
16	Driveway 4 / Iris Avenue	MV
17	Driveway 5 / Krameria Avenue (EW)	MV
18	Driveway 6 / Iris Avenue	MV
19	Driveway 7 / Krameria Avenue (EW)	MV
20	Driveway 8 / Krameria Avenue (EW)	MV
21	Driveway 9/Concord Way / Iris Avenue	MV
22	Driveway 10 / Krameria Avenue (EW)	MV
23	Cosmos Street / Driveway 11	MV
24	Cosmos Street / Driveway 12	MV
25	Cosmos Street / Driveway 13	MV
26	Cosmos Street / Krameria Avenue (EW)	MV
27	Krameria Avenue (NS) / Driveway 14	MV
28	Krameria Avenue (NS) / Driveway 15/Krameria Avenue	MV
29	Indian Street / Iris Avenue	MV
30	Indian Street / Krameria Avenue	MV

Source: Urban Crossroads 2011f, Section 8.0.

Traffic projections for General Plan buildout with Project conditions were derived from the Moreno Valley Traffic Model (MVTM) using accepted procedures for model forecast refinement and smoothing. The traffic forecasts reflect the area-wide growth anticipated between Existing (2011) conditions and General Plan buildout conditions. Therefore, as directed by the City of Moreno Valley Transportation Engineering Division, the General Plan buildout peak hour forecasts were refined using the long-range forecasts, along with existing peak hour traffic count data collected at each analysis location in May 2011. Future estimated peak hour traffic data was used for new intersections and intersections with an anticipated change in travel patterns to further refine the General Plan buildout peak hour forecasts. Lastly, General Plan buildout turning volumes were compared to Horizon Year (2016) with Project (E+A+C+P) volumes (refer to in order to ensure a minimum growth of 10% as a part of the refinement process. The minimum 10% growth includes any additional growth between Horizon Year (2016) with Project (E+A+C+P) and General Plan buildout traffic conditions that is not accounted for by the traffic generated by cumulative

development projects and the ambient growth between existing and Horizon Year (2016) with Project (E+A+C+P) conditions.

The initial estimate of the future General Plan buildout peak hour turning movements was then reviewed by Urban Crossroads for reasonableness at intersections where model results showed unreasonable turning movements. The initial raw model estimates were adjusted to achieve flow conservation, reasonable growth, and reasonable diversion between parallel routes.

As the MVTM does not provide truck volumes or percentage of truck traffic, the percentage of truck traffic under Horizon Year (2016) with Project (E+A+C+P) conditions was used to estimate future truck volumes at each of the study area intersections and roadway segments. The truck traffic also was flow conserved[1] between closely spaced study area intersections for purposes of maintaining flow of heavy vehicles in simulations for the progression analyses, with concurrence by the City of Moreno Valley Transportation Engineering Division.

Weekday ADT volumes expected for General Plan buildout without Project traffic conditions are shown on Figure 4.11-43, *General Plan Buildout Without Project Average Daily Traffic (ADT)*. AM and PM peak hour intersection turning movement volumes for General Plan buildout without Project traffic conditions are shown on Figure 4.11-44, *General Plan Buildout Without Project AM Peak Hour Intersection Volumes*, and Figure 4.11-45, *General Plan Buildout Without Project PM Peak Hour Intersection Volumes*.

General Plan buildout with Project traffic conditions assumes the Project's proposed reclassification and alignment of Krameria Avenue (EW) through the Project site. The weekday ADT volumes expected for General Plan buildout with Project traffic conditions are shown on Figure 4.11-46, *General Plan Buildout With Project Average Daily Traffic (ADT)*. AM and PM peak hour intersection turning movement volumes for General Plan buildout with Project traffic conditions are shown Figure 4.11-47, *General Plan Buildout With Project AM Peak Hour Intersection Volumes*, and Figure 4.11-48, *General Plan Buildout With Project PM Peak Hour Intersection Volumes*.

Comparing Figure 4.11-43 and Figure 4.11-46 indicates relatively small changes in local travel patterns and small fluctuations in peak hour delay values (Urban Crossroads 2011f 187).

❑ General Plan Buildout Roadway Segments Analysis

Roadway segment capacities for General Plan Buildout without Project conditions were determined based on the methodology discussed in Subsection 4.11.3B. Of the 30 study area roadway segments studied for the General Plan Buildout scenario, 29 are calculated to operate at an acceptable LOS under the General Plan Buildout scenario and one (1) segment (ID #55) would operate at an unacceptable LOS both without and with the Project. The General Plan Buildout roadway analysis indicates that the following roadway segment is anticipated to operate at an unacceptable LOS "E," based on the City of Moreno Valley's planning level daily roadway capacity thresholds, with or without the proposed Project and its proposed amendment to the City of Moreno Valley Circulation Element:

[1] Flow conservation is the process of balancing vehicle trips (e.g., passenger cars and trucks) to ensure vehicles exiting an intersection are equal to the number of vehicles entering an adjacent, closely-spaced intersection.

ID	Roadway Segment	Jurisdiction
55	Indian Street north of Iris Avenue – LOS "E"	MV

Table 4.11-23, *General Plan Buildout Conditions Roadway Volume/Capacity (V/C) Analysis*, summarizes the roadway segment General Plan Buildout Conditions without Project and with Project conditions based on the LOS thresholds identified in Table 4.11-11.

Based on the results of the analysis, the Project's proposed amendment to the City of Moreno Valley's Circulation Element would not result in a significant direct or cumulative impact to the surrounding roadway system. However, the Project would contribute 50 or more peak hour trips to this roadway segment, which is considered a cumulatively considerable contribution to a significant cumulative impact.

❑ General Plan Buildout Intersections Analysis

General Plan Buildout peak hour traffic operations were evaluated for the study area intersections based on the methodologies presented in Subsection 4.11.3B. In the General Plan Buildout condition, all study area intersections are anticipated to operate at an acceptable LOS during the peak hours. Changes in peak hour intersection delay with and without the proposed reclassification and alignment of Krameria Avenue (EW) are shown in Table 4.11-24, *Intersection Analysis Summary for General Plan Buildout Conditions*. Relatively small changes in local travel patterns result in fluctuations in peak hour delay values when comparing with and without Project forecasts; however, no intersection is projected to fall below the LOS threshold. Impacts would be less than significant.

Threshold 2: ***Would the Project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?***

The Riverside County Congestion Management Plan (CMP) prepared by the Riverside County Transportation Commission (RCTC) is applicable to the Project because I-215 is CMP Roadway (RCTC 2010 2-5) and the Project will contribute traffic to the travel lanes and ramps of I-215. As shown on Figure 4.11-18, it is estimated that 45% of passenger cars accessing the Project site would use I-215. And, as shown on Figure 4.11-19, it is estimated that 85% of trucks accessing the Project site would use I-215.

For the purpose of analysis, I-215 in the study area (from north of Cactus Avenue to south of Harley Knox Boulevard) has been broken into segments defined by the freeway-to-arterial interchange locations. As noted previously, the RCTC has plans in place for the widening of I-215 through the study area; however, a schedule for the widening has not been set due to the state's ongoing budget challenges (RCTC n.d.). As such, the future widening was not assumed as the base condition. Widening of the I-215 Freeway as planned by RCTC is noted in the analysis of future conditions as "with improvements" only.

The same analysis scenarios presented above under Threshold 1 (E+P, E+A+P, and E+A+C+P) are analyzed below and in *Technical Appendix J.*

A. Existing (2011) Plus Project CMP Analysis (E+P)

As previously stated, for purposes of full disclosure and in an effort to satisfy CEQA Guidelines Section 15125(a), this subsection presents an analysis of existing traffic volumes plus traffic generated by the proposed Project (Existing plus Project, or E+P). The E+P scenario rarely materializes as an actual scenario in the real world because conditions are not static. Other projects are being constructed, the transportation network is evolving, and traffic patterns are changing. Regardless, the E+P scenario is analyzed to satisfy CEQA requirements to identify the Project's impacts to the existing environment.

❑ E+P Freeway Segment Analysis

E+P mainline directional volumes for I-215 for the AM and PM peak hours are shown on Figure 4.11-49, *Existing Plus Project (E+P) I-215 Freeway Mainline Volumes*. As shown in Table 4.11-25, *Existing Plus Project (E+P) Conditions Basic Freeway Segment Analysis*, I-215 Freeway segments in the study area were found to operate at an acceptable LOS (LOS "E" or better) during the peak hours for E+P traffic conditions. Project-related impacts would thus be less than significant.

❑ E+P Freeway Ramp Analysis

A traffic progression analysis was performed for the southbound and northbound ramps at the I-215/Cactus Avenue and I-215/Harley Knox Boulevard interchanges to assess peak hour vehicle queues at the on and off ramps and along the arterials adjacent to the I-215 Freeway that may potentially affect the peak hour operations of the ramp-to-arterial intersections for the E+P traffic conditions. The Project would add traffic to the I-215 ramp intersection lanes at Harley Knox Boulevard that experience queuing issues under existing conditions. No new queuing issues would be created with the addition of Project traffic. Table 4.11-26, *Existing Plus Project (E+P) Conditions Stacking Length Summary at I-215/Cactus Avenue and I-215/Harley Knox Boulevard*, summarizes the AM and PM hour stacking lengths for the study area interchanges in the E+P conditions.

Additionally, and as shown in Table 4.11-27, *Existing Plus Project (E+P) I-215 Freeway Ramp Junction Merge/Diverge Analysis*, the I-215 Freeway ramp merge and diverge areas would operate at acceptable LOS "E" or better during the peak hours under E+P traffic conditions. Project-related impacts would thus be less than significant.

B. Opening Year CMP Analysis (Opening Year (2016))

The Opening Year (2016) conditions analysis determines the Project-related effects on I-215 based on a comparison of the Existing plus Ambient Growth plus Project (E+A+P) traffic conditions to the Existing (2011) and Existing plus Ambient Growth (E+A) conditions.

❑ Opening Year (2016) Freeway Segment Analysis

Opening Year (2016) mainline directional volumes for I-215 for the AM and PM peak hours (without and with Project) are shown on Figure 4.11-50, *Opening Year (2016) Without Project (E+A) I-215 Freeway Mainline Volumes*, and Figure 4.11-51, *Opening Year (2016) With Project (E+A+P) I-215 Freeway Mainline Volumes*. As shown in Table 4.11-28, *Opening Year (2016) Conditions Basic Freeway Segment Analysis*, I-215 Freeway segments in the study area were found to operate at an acceptable LOS during the peak hours for Opening Year (2016) without and with Project traffic conditions. Project-related impacts would thus be less than significant.

❑ Opening Year (2016) Freeway Ramp Analysis

A traffic progression analysis was performed for the affected southbound and northbound ramps. The Project would add traffic to the following three I-215 ramp intersection lanes that experience queuing issues without the Project:

Freeway Ramp Intersection Location	Movement
I-215 Northbound Ramps / Cactus Avenue	Northbound Left Turn Lane
I-215 Southbound Ramps / Harley Knox Boulevard	Westbound Left Turn Lane
I-215 Northbound Ramps / Harley Knox Boulevard	Eastbound Left Turn Lane

Source: Urban Crossroads, Inc., Section 6.7.

Table 4.11-29, *Opening Year (2016) Conditions Stacking Length Summary at I-215/Cactus Avenue and I-215/Harley Knox Boulevard*, summarizes the AM and PM hour stacking lengths for the study area interchanges in the Opening Year (2016) conditions, both without and with the Project.

As shown in Table 4.11-30, *Opening Year (2016) I-215 Freeway Ramp Junction Merge/Diverge Analysis*, the I-215 Freeway ramp merge and diverge areas are expected to operate at acceptable service levels for Opening Year (2016) traffic conditions, both without and with the Project. Project-related impacts would thus be less than significant.

C. Horizon Year Traffic Analysis (Horizon Year (2016))

As discussed in Subsection 4.02, CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a proposed project. The Horizon Year (2016) analysis determines the Project-related traffic impacts based on a comparison of the traffic volumes expected in 2016 without and with development of the proposed Project, including background traffic from cumulative development projects. Refer to Subsection 4.11.3B, *Cumulative Impact Analysis*, for a description of the methodology used for this analysis.

❑ Horizon Year (2016) Freeway Segment Analysis

Horizon Year (2016) mainline directional volumes for I-215 for the AM and PM peak hours (without and with Project) are shown on Figure 4.11-52, *Horizon Year (2016) Without Project (E+A+C) I-215 Freeway Mainline Volumes*, and Figure 4.11-53, *Horizon Year (2016) With Project (E+A+C+P) I-215 Freeway Mainline Volumes*. As shown in Table 4.11-31, *Horizon Year (2016) Conditions Basic Freeway Segment Analysis*, the following four I-215 Freeway segments in the study area were found to operate at unacceptable LOS during the peak hours for Horizon Year (2016) without and with Project traffic conditions:

I-215 Freeway Direction of Travel	Freeway Segment
I-215 Freeway Southbound	South of Cactus Avenue
I-215 Freeway Southbound	North of Harley Knox Boulevard
I-215 Freeway Southbound	South of Harley Knox Boulevard
I-215 Freeway Northbound	South of Cactus Avenue

Source: Urban Crossroads, Inc., Section 7.8.

As shown in Table 4.11-31, the addition of Project traffic would not cause any freeway segment to worsen from an acceptable to unacceptable LOS.

As noted previously, a schedule for the widening I- 215 between Nuevo Road in the City of Perris and Box Springs Road in the City of Riverside has not been set, due to the state's ongoing budget challenges. The widening project includes the addition of a carpool lane in each direction of travel over a 10.75-mile section of I-215. Until the widening is in place, which would relieve the deficiencies, the Project is presumed to make a cumulatively considerable contribution to a significant cumulative impact at these four freeway segments.

❑ Horizon Year (2016) Freeway Ramp Analysis

A traffic progression analysis was performed for the affected southbound and northbound ramps. Table 4.11-32, *Horizon Year (2016) Conditions Stacking Length Summary at I-215/Cactus Avenue and I-215/Harley Knox Boulevard*, summarizes the AM and PM hour stacking lengths for the study area interchanges in the Horizon Year (2016) conditions, both without and with the Project. The following 12 movements are anticipated to experience queuing issues during peak 95th percentile traffic flows:

Freeway Ramp Intersection Location	Movement
I-215 Southbound Ramps / Cactus Avenue	Eastbound Through Lane
I-215 Southbound Ramps / Cactus Avenue	Westbound Left Turn Lane
I-215 Northbound Ramps / Cactus Avenue	Northbound Left Turn Lane
I-215 Northbound Ramps / Cactus Avenue	Eastbound Through Lane
I-215 Northbound Ramps / Cactus Avenue	Westbound Through Lane
I-215 Southbound Ramps / Harley Knox Boulevard	Southbound Through Lane
I-215 Southbound Ramps / Harley Knox Boulevard	Southbound Right Turn Lane
I-215 Southbound Ramps / Harley Knox Boulevard	Westbound Left Turn Lane
I-215 Northbound Ramps / Harley Knox Boulevard	Northbound Right Turn Lane
I-215 Northbound Ramps / Harley Knox Boulevard	Eastbound Left Turn Lane
I-215 Northbound Ramps / Harley Knox Boulevard	Eastbound Through Lane
I-215 Northbound Ramps / Harley Knox Boulevard	Westbound Right Turn Lane

Source: Urban Crossroads, Inc., Section 7.7.

As shown in Table 4.11-30, *Horizon Year (2016) I-215 Freeway Ramp Junction Merge/Diverge Analysis*, the following five I-215 Freeway ramp merge and diverge areas are expected to operate at unacceptable service levels for Horizon Year (2016) traffic conditions, without and with the Project. No new deficiencies would be created by the Project; thus, Project-related impacts would thus be less than significant.

I-215 Freeway Direction of Travel	Ramp Junction
I-215 Freeway Southbound	On-Ramp at Cactus Avenue
I-215 Freeway Southbound	Off-Ramp at Harley Knox Boulevard
I-215 Freeway Southbound	On-Ramp at Harley Knox Boulevard

I-215 Freeway Direction of Travel	Ramp Junction
I-215 Freeway Northbound	On-Ramp at Cactus Avenue
I-215 Freeway Northbound	Off-Ramp at Cactus Avenue

Source: Urban Crossroads, Inc., Section 7.9.

Threshold 3: ***Would the Project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?***

The proposed Project does not contain an air travel component; thus, air traffic volumes would not be changed as a result of the Project.

The Project site is located adjacent and east of the March Air Reserve Base and March Inland Port Airport ARB/IPA Riverside County Airport Land Use Commission (RCALUC) is the local airport land use commission for airports within Riverside County, and pursuant to the California State Aeronautics Act (Public Utility Code §21670 et seq.) is tasked with preparing and adopting an airport land use compatibility plan, and for reviewing proposed plans, regulations, and other actions of local agencies and airport operators for consistency with the plan.

As discussed in Subsection 4.8, Hazards and Hazardous Materials, and Subsection 4.9, Land Use, the Project site is located within the airport's Compatibility Zone II, which is identified as an area that is subject to airport-related noise, but is not an area that is prone to safety issues associated with airport operations. As such, the Project would not introduce a safety risk and would not cause a change in air traffic patterns. No impacts would occur.

Threshold 4: ***Would the Project substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?***

The proposed Project (described in Section 3.0, Project Description) is consistent with the property's land use designations as applied by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208), as well as the property's zoning designation. As such, there would be no transportation hazards created as a result of an incompatible land use. The Project proposes to construct and operate an industrial business center in an area of the City of Moreno Valley that is planned for industrial development and is adjacent to the City's designated truck route. To reduce inadvertent wrong turns, signs are proposed to be posted at the Project's exit driveways directing vehicles to the truck route.

The City of Moreno Valley Transportation Engineering Division has reviewed the Project's application materials (refer to Section 3.0, Project Description) and determined that no hazardous transportation design features would be introduced by the Project. A General Plan Amendment (PA11-0001) is proposed as part of the Project to modify the Circulation Element of the City of Moreno Valley General Plan. The proposed modifications to the Circulation Element would consist of changes to the planned alignment and classification of a segment of Krameria Road between Heacock Street and Indian Street. The intended purpose of this change is to provide a 90-degree intersection where Krameria Avenue meets Heacock Street and to provide a perpendicular

connection between Heacock Street and proposed Cosmos Street to allow for more safe and efficient local circulation system. The effect on transportation safety would be positive and no adverse safety impacts would occur.

Threshold 5: Would the Project result in inadequate emergency access?

Adequate emergency access would be provided to the Project site. Buildout of the proposed Project would result in new industrial business center on the Project site, which would increase the need for emergency access to and from the site. During the course of the City of Moreno Valley's required review of the proposed Project (refer to Section 3.0, Project Description), the Project's transportation design was reviewed by the City's Transportation Engineering Division to ensure that adequate access to and from the site would be provided for emergency vehicles. Furthermore, Conditions of Approval will be issued by the City of Moreno Valley prior to consideration of the proposed Project by City Council, and will require that the Project provide adequate paved access to and from the site and its buildings. With required adherence to City requirements for emergency vehicle access, impacts would be less than significant.

Threshold 6: Would the Project conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

The proposed Project is an industrial business park, which is a land use that is not likely to attract large volumes of pedestrian, bicycle, or transit traffic. (Field observations indicate nominal pedestrian and bicycle activity within the study area (Urban Crossroads 2011f 45)). Regardless, the Project is designed to comply with all applicable transportation policies.

The Project is designed to accommodate pedestrians via sidewalks provided along all adjacent roadways. Class III bikeways would be provided along Heacock Street and Iris Avenue in conformance with the General Plan's Bikeway Plan. Krameria Avenue and Cosmos Street are not identified as bikeways per the General Plan Bikeway Plan (as shown on Figure 4.11-11) and pursuant to the policies of the MVIAP, bikeways are not required and not proposed along the proposed Project's frontage with Krameria Avenue or Cosmos Street. Screen walls are designed to be installed along the Project's perimeter, which would separate the adjacent public roadway rights-of-way (and their associated streetscapes, sidewalks, and bikeways) from the proposed Project's interior, eliminating any conflict between Project operations and the sidewalks and bikeways of perimeter roadways. As required by the City, bike racks would be provided at each building. A transit turnout easement also is provided along the Project's frontage with Iris Avenue, in the event that RTA decides to implement a transit service route adjacent to the Project site. All Project driveways would be stop-signed controlled and sight distance at each Project driveway is required to be reviewed by the City of Moreno Valley at the time improvement plans are submitted to ensure that sign distance meets City standards. Off site, trucks accessing the Project are required to use approved truck routes, which would reduce conflicts associated with safety of the multi-model circulation system.

A detailed analysis of the proposed Project's consistency with applicable plans, policies, and programs is provided in Subsection 4.9, *Land Use and Planning*. As concluded in Subsection 4.9, the Project would not conflict with adopted plans, policies, or programs regarding public transit, bicycle, or pedestrian facilities.

4.11.5 CUMULATIVE IMPACT ANALYSIS

The analysis under Threshold 1 determined the Project's potential to affect the transportation network on a direct or cumulative basis. As concluded under Threshold 1, the addition of Project traffic to the existing and planned circulation network would make a cumulatively considerable contribution to:

Six (6) roadway segments in Opening Year (2016):

ID	Roadway Segment	Jurisdiction
3	Cactus Avenue from I-215 NB On-Ramp to I-215 NB Ramps	RivCo
4	Cactus Avenue east of I-215 Freeway (I-215 to Elsworth Street)	RivCo, MV
5	Cactus Avenue west of Frederick Street (Veterans Way to Frederick Street)	MV, MJPA
16	Iris Avenue west of Indian Street	MV
33	Harley Knox Boulevard west of Indian Street	Perris
40	Heacock Street from Gentian Avenue to Iris Avenue	MV, MJPA

Sixteen (16) roadway segments in Horizon Year (2016):

ID	Roadway Segment	Jurisdiction
2	Cactus Avenue between I-215 SB Ramps to I-215 NB On-Ramp	RivCo
3	Cactus Avenue between I-215 NB On-Ramp to I-215 NB Ramps	RivCo
4	Cactus Avenue east of I-215 Freeway (I-215 to Elsworth Street)	RivCo, MV
5	Cactus Avenue west of Frederick Street (Veterans Way to Frederick Street)	MV, MJPA
6	Cactus Avenue east of Frederick Street	MV, MJPA
7	Cactus Avenue west of Heacock Street	MV, MJPA
16	Iris Avenue west of Indian Street	MV
26	San Michele Road between Heacock Street and Indian Street	MV
32	Harley Knox Boulevard east of I-215 Freeway	Perris
33	Harley Knox Boulevard west of Indian Street	Perris
34	Harley Knox Boulevard east of Indian Street	Perris
40	Heacock Street between Gentian Avenue to Iris Avenue	MV, MJPA
46	Heacock Street north of San Michele Road	MV, MJPA
60	Indian Street between San Michele Road to Nandina Avenue	MV
61	Indian Street south of Nandina Avenue	MV
62	Indian Street north of Harley Knox Boulevard	Perris

Thirteen intersections in Horizon Year (2016):

ID	Intersection Location	Jurisdiction
1	I-215 Southbound Ramps / Cactus Avenue	Caltrans
2	I-215 Southbound Ramps / Harley Knox Boulevard	Caltrans
3	I-215 Northbound Ramps / Cactus Avenue	Caltrans
4	I-215 Northbound Ramps / Harley Knox Boulevard	Caltrans
5	Frederick Street / Cactus Avenue	MV, MJPA
6	Heacock Street / Cactus Avenue	MV, MJPA
8	Heacock Street / Gentian Avenue	MV, MJPA
9	Heacock Street / Iris Avenue	MV, MJPA
12	Heacock Street / Krameria Avenue (EW) – LOS "F" during the PM peak hour	MV, MJPA
14	Heacock Street / San Michele Road	MV, MJPA
31	Indian Street / San Michele Road	MV
32	Indian Street / Nandina Avenue	MV
33	Indian Street / Harley Knox Boulevard	Perris

One (1) roadway segment at General Plan Buildout:

ID	Roadway Segment	Jurisdiction
55	Indian Street north of Iris Avenue – LOS "E"	MV

The analysis under Threshold 2 determined the Project's potential to affect I-215 on a direct or cumulative basis. As concluded under Threshold 2, the addition of Project traffic to the existing and planned circulation network would make a cumulatively considerable contribution to four (4) freeway segments in Horizon Year (2016), until planned widening of I-215 is completed by RCTC:

I-215 Freeway Direction of Travel	Freeway Segment
I-215 Freeway Southbound	South of Cactus Avenue
I-215 Freeway Southbound	North of Harley Knox Boulevard
I-215 Freeway Southbound	South of Harley Knox Boulevard
I-215 Freeway Northbound	South of Cactus Avenue

The proposed Project has no potential to contribute to significant cumulative impacts under the topics discussed under Thresholds 3, 4, and 5 because the Project has no potential to change air traffic patterns, to create transportation design safety concerns, or to adversely affect emergency access.

Regarding Threshold 5, the Project would not conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities and thus has no potential to contribute to a cumulative impact. The Project incorporates bicycle racks, sidewalks, and a transit easement into its design to

facilitate local and regional plans for a multi-model transportation network. The Project is an industrial business park, which is likely to attract passenger cars and trucks and only small volumes of pedestrian, bicycle, or transit traffic. Potential conflicts between truck traffic and other modes of transportation would be reduced by the Project's design features. Screen walls are designed to be installed along the Project's perimeter and all Project driveways would reviewed for adequate sight distance before construction and be stop-sign controlled. Trucks would be directed to the approved truck route by signs posted at Project exit driveways. As such, the Project's contribution to any cumulative conflict between motor vehicle traffic and other modes of transportation would be less than significant.

4.11.6 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Improvements to the local roadway system are proposed by the Project, and will be enforced as part of the Conditions of Approval issued for the Project by the City of Moreno Valley, which will be issued by the City of Moreno Valley prior to consideration of the proposed Project by the City Council.

PR 4.11-1 The Project will construct roadway improvements (including but not limited to parkway, landscaping, and sidewalk improvements) along its frontage with Iris Avenue and Heacock Street as described in the City of Moreno Valley's Conditions of Approval for Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan PA11-0002, and individual Building Plot Plans PA11-0003, PA11-0004, PA11-0005, and PA11-0006.

PR 4.11-2 The Project will construct improvements to Cosmos Drive (including but not limited to parkway, landscaping, and sidewalk improvements) as described in the City of Moreno Valley's Conditions of Approval for Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan PA11-0002, and individual Building Plot Plans PA11-0003, PA11-0004, PA11-0005, and PA11-0006.

PR 4.11-3 The Project will construct improvements to Krameria Avenue (including but not limited to parkway, landscaping, and sidewalk improvements) as described in the City of Moreno Valley's Conditions of Approval for Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan PA11-0002, and individual Building Plot Plans PA11-0003, PA11-0004, PA11-0005, and PA11-0006.

PR 4.11-4 The Project will construct intersection improvements at each Project Driveway as described in the City of Moreno Valley's Conditions of Approval for Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan PA11-0002, and individual Building Plot Plans PA11-0003, PA11-0004, PA11-0005, and PA11-0006.

PR 4.11-5 The Project shall comply with the City of Moreno Valley Development Impact Fee (DIF), which requires the payment of a fee to the City to reduce traffic congestion by installing intersection improvements. The following DIF-funded intersection improvements are applicable:

a. Frederick Street/Cactus Avenue (ID #5) (one eastbound through lane)

b. Heacock Street/Gentian Avenue (ID #8) (install traffic signal)

c. Heacock Street/Iris Avenue (ID #9) (install traffic signal, one northbound through lane, and one westbound right turn lane with overlap phasing)

d. Heacock Street/Krameria Avenue (ID #12) (install traffic signal, one southbound left turn lane, one westbound left turn lane, and one westbound right turn lane)

e. Heacock Street/San Michel Road (ID #31) (one southbound left turn lane and one westbound right turn lane with overlap phasing)

f. Indian Street/Nandina Avenue (ID #32) (one northbound through lane and one southbound through lane)

PR 4.11-6 The Project shall participate in funding of off-site transportation improvements through the payment of Transportation Uniform Mitigation Fees (TUMF). The following TUMF-funded intersection improvements are applicable:

a. I-215 Southbound Ramps/Cactus Avenue (ID #1) (one eastbound free right lane, one westbound left turn lane)

b. I-215 Southbound Ramps/Harley Knox Blvd. (ID #2) (two southbound left turn lanes, one westbound left turn lane)

c. I-215 Northbound Ramps/Cactus Avenue (ID #3) (one northbound right turn lane, one eastbound through turn lane, one westbound through lane, one westbound through lane, one westbound right turn lane)

d. I-215 Northbound Ramps/Harley Knox Blvd.(ID #4) (one northbound right turn lane, one eastbound left turn lane, one eastbound through lane, one westbound through lane, two westbound right turn lanes)

e. Frederick Street/Cactus Avenue (ID #5) (one westbound through lane and one eastbound through lane)

f. Heacock Street/Krameria Avenue (ID #12) (one northbound through lane)

g. Indian Street/Harley Knox Blvd. (ID #33) (one eastbound through lane)

PR 4.11-7 On-site direction signing and striping is required to be installed in conjunction with detailed construction plans for the Project and as approved by the City of Moreno Valley. The on-site signing and striping plans shall be subject to review and approval by the Planning Division, and shall clearly indicate the location of service area docks and public parking areas.

PR 4.11-8 All final grading, landscaping, and street improvement plans are required to provide sight distance standards in accordance with City of Moreno Valley and California Department of Transportation (Caltrans) standards.

PR 4.11-9 The minimum number of vehicle and bicycle parking spaces specified by the City of Moreno Valley Municipal Code is required to be provided.

PR 4.11-10 Space for a future transit stop will provided via an easement provided by the Project on the eastbound side of Iris Avenue as described in the City of Moreno Valley's Conditions of Approval for Tentative Parcel Map No. 35879 (PA11-0007).

PR 4.11-11 All construction hauling vehicles shall use the City-approved truck route. Alternative routes used by vehicles hauling construction equipment, materials, or earth must receive prior approval by the City of Moreno Valley.

4.11.7 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: Significant Direct and Cumulative Impact. The proposed Project would directly and cumulatively impact the existing and planned roadway network by contributing traffic to facilities that would operate at deficient levels of service.

Direct Impacts: The addition of Project traffic would directly impact the intersection of Heacock Street/Iris Avenue and the roadway segment of Heacock Street from Gentian Avenue to Iris Avenue (E+P). With required payment of City of Moreno Valley DIF fees and implementation of the DIF-funded improvement at this intersection (see PR 4.11-5), these impacts would be reduced, but not to below a level of significance. Additionally, the Project would directly impact the segment of Cactus Avenue between Veterans Way and Frederick Street (E+P), which would operate at a deficient LOS because this is the only segment of Cactus Avenue not improved to three (3) travel lanes in the westbound direction under existing conditions.

Cumulative Impacts: Project traffic would make a cumulatively considerable contribution to identified cumulative impacts at six (6) roadway segments in Opening Year 2016, at 16 roadway segments and 13 intersections in Horizon Year 2016, and at one (1) roadway segment in General Plan Buildout conditions. With required payment of City of Moreno Valley DIF fees (see PR 4.11-5) and TUMF fees (see PR 4.11-6) and implementation of the TUMF and DIF-funded improvements at the cumulatively impacted facilities, all cumulative impacts in Opening Year 2016 and Horizon Year 2016 would be reduced to below a level of significance with the exception of four (4) intersections and adjoining roadway segments that are not included in the TUMF and DIF programs (intersection of Heacock Street/Cactus Avenue (Project's traffic contribution is 6.4%); intersection of Indian Street/San Michele Road (Project's traffic contribution is 5.8%); intersection of Indian Street/Nandina Avenue (Project's traffic contribution is 7.5%); and intersection of Indian Street/Harley Knox Blvd (Project's traffic contribution is 5.4%)). Additionally, the roadway segment of Indian Street between Iris Avenue and Gentian Avenue is projected to operate at an unacceptable LOS in General Plan buildout conditions with or without the addition of Project traffic.

Threshold 2: Significant Cumulative Impact (Short-Term). The proposed Project would make a short-term cumulatively considerable contribution to impacts on four (4) I-215 freeway segments until such time as the planned widening of I-215 is complete.

Threshold 3: No Impact. There is no potential for the Project to change air traffic levels or create substantial air traffic safety risks.

Threshold 4: No Impact. No transportation safety hazards would be introduced as a result of the proposed Project's design.

Threshold 5: No Impact. Adequate emergency access would be provided to the Project site.

Threshold 6: Less than Significant Impact. The proposed Project is consistent with adopted policies and programs regarding public transit, bicycle, and pedestrian facilities. The Project is designed to reduce all potential transportation mode conflicts. Potential impacts to the performance or safety of transit, bicycle, and pedestrian systems would be less than significant.

4.11.8 MITIGATION

MM 4.11-1 Prior to issuance of the Project's first occupancy permit, a traffic signal (programmed under the City of Moreno Valley DIF) shall be installed at the intersection of Heacock Street/Gentian Avenue.

MM 4.11-2 Prior to issuance of the first occupancy permit, the following improvements shall be in place at the intersection of Heacock Street/Iris Avenue:

a. Traffic signal
b. Northbound: two through lanes
c. Northbound: one right turn lane

MM 4.11-3 In the event that the City of Moreno Valley and/or the City of Perris establish a fair-share funding program(s) for improvements to any of the following intersections or immediately adjacent roadway segments that contribute to the intersection's level of service, then prior to the issuance of building permits, the Project shall contribute a fair-share payment to the City-established funding program(s) to address the Project's cumulative impacts to the following facilities:

a. Intersection of Heacock Street/Cactus Avenue (Project's fair-share contribution is 6.4%);
b. Intersection of Indian Street/San Michele Road (Project's fair-share contribution is 5.8%);
c. Intersection of Indian Street/Nandina Avenue (Project's fair-share contribution is 7.5%);
d. Intersection of Indian Street/Harley Knox Blvd (Project's fair-share contribution is 5.4%);

MM 4.11-4 In the event that the City of Moreno Valley establishes a fair-share funding program for improvements to Indian Street between Iris Avenue and Gentian Avenue prior to the issuance of building permits, the Project shall contribute a fair-share payment to the City-established funding program to address the Project's cumulative impacts at General Plan buildout.

4.11.9 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Threshold 1: Significant Unavoidable Direct and Cumulative Impact. With required payment of City of Moreno Valley DIF fees (see PR 4.11-5) and TUMF fees (see PR 4.11-6) and implementation of Mitigation Measures MM 4.11-1 and MM 4.11-2, the Project's direct impacts to the intersections of Heacock Street/Iris Avenue and Heacock Street/Gentian Avenue, and the roadway segment of Heacock Street from Gentian Avenue to Iris Avenue, would be reduced to below a level of significance. Improvements to the roadway segment of Cactus Avenue west of Frederick Street (E+P) are already planned for improvement as part of Plot Plan PA08-0072 to provide three (3) travel lanes in the westbound direction. Although this improvement will be in place before occupancy permits are issued for the proposed Project, it was not in place at the time the Project's Notice of Preparation was distributed for public review; accordingly, Project impacts to this roadway segment are evaluated as significant and unavoidable for the E+P scenario. Mitigation for this impact is not identified because the improvements already are assured and would be in place prior to the Project's Opening Year 2016. With construction of the improvements that will occur in association with Plot Plan PA 08-0072 (anticipated to be under construction in 2012) impacts to this road segment would be reduced to less than significant levels.

With required payment of City of Moreno Valley DIF fees (see PR 4.11-5) and TUMF fees (see PR 4.11-6) many of the Project's cumulative impacts would be reduced to below a level of significance, with the exception of impacts at four (4) intersections (Heacock Street/Cactus Avenue, Indian Street/San Michele Road, Indian Street/Nandina Avenue, and Indian Street/Harley Knox Blvd.) and their adjoining roadway segments that are not covered by either the TUMF or DIF programs. However, there is no assurance that improvements to the intersections and roadway segments that are funded by TUMF or DIF would be in place prior to the Project's Opening Year 2016 or Horizon Year 2016; accordingly, the proposed Project is evaluated as having a significant and unavoidable near-term impact to these TUMF/DIF-funded intersections and roadway segments until such time that the improvements are constructed. For the four (4) intersections that are not funded by either TUMF or DIF, Mitigation Measure MM 4.11-3 and MM 4.11-4 require the Project to participate in a funding program(s) to address the Project's fair share towards cumulative impacts, if such funding program(s) is established prior to the issuance of building permits. However, because there is no assurance that the City of Moreno Valley and/or the City of Perris would identify a funding program(s) for these intersections and roadway segment prior to the issuance of building permits, and because there is no assurance that these improvements would be in place prior to the Project's Opening Year 2016 or Horizon Year 2016, the Project's cumulative impact to these four (4) intersections and one (1) roadway segment are concluded to be significant and unavoidable.

Threshold 2: Significant Unavoidable Cumulative Impact (Short-Term). The proposed Project would make a short-term cumulatively considerable contribution to impacts on four (4) I-215 freeway segments until such time as the planned widening of I-215 is complete. I-215 is under the jurisdiction of Caltrans and is outside of the authority of the City of Moreno Valley; there is no feasible mitigation available to reduce or avoid the Project's contribution of traffic to I-215.

Table 4.11-1 Roadway Segment Analysis Locations

ID	ROADWAY SEGMENTS	JURISDICTION*
1	Cactus Avenue west of I-215 Freeway	RivCo
2	Cactus Avenue between I-215 SB Ramps to I-215 NB On-Ramp	RivCo
3	Cactus Avenue between I-215 NB On-Ramp to I-215 NB Ramps	RivCo
4	Cactus Avenue east of I-215 Freeway (I-215 to Elsworth Street)	RivCo, MV
5	Cactus Avenue west of Frederick Street (Veterans Way to Frederick Street)	MV, MJPA
6	Cactus Avenue east of Frederick Street	MV, MJPA
7	Cactus Avenue west of Heacock Street	MV, MJPA
8	Cactus Avenue east of Heacock Street	MV
9	Meyer Drive west of Heacock Street	MJPA
10	John F. Kennedy Drive east of Heacock Street	MV
11	Gentian Avenue east of Heacock Street	MV
12	Iris Avenue between Heacock Street and Driveway 4	MV
13	Iris Avenue between Driveway 4 and Driveway 6	MV
14	Iris Avenue between Driveway 6 and Driveway 9/Concord Way	MV
15	Iris Avenue east of Driveway 9/Concord Way	MV
16	Iris Avenue west of Indian Street	MV
17	Iris Avenue east of Indian Street	MV
18	*Krameria Avenue (EW) between Heacock Street and Driveway 5*	*MV*
19	*Krameria Avenue (EW) between Driveway 5 and Driveway 7*	*MV*
20	*Krameria Avenue (EW) between Driveway 7 and Driveway 8*	*MV*
21	*Krameria Avenue (EW) between Driveway 8 and Driveway 10*	*MV*
22	*Krameria Avenue (EW) between Driveway 10 and Cosmos Street/Krameria Avenue (NS)*	*MV*
23	Krameria Avenue east of Krameria Avenue (NS)	MV
24	Krameria Avenue west of Indian Street	MV
25	Krameria Avenue east of Indian Street	MV
26	San Michele Road between Heacock Street and Indian Street	MV
27	San Michele Road east of Indian Street	MV
28	Nandina Avenue between Heacock Street and Indian Street	MV
29	Nandina Avenue east of Indian Street	MV
30	Harley Knox Boulevard west of I-215 Freeway	RivCo
31	Harley Knox Boulevard between I-215 SB Ramps and I-215 NB Ramps	RivCo, Perris
32	Harley Knox Boulevard east of I-215 Freeway	Perris
33	Harley Knox Boulevard west of Indian Street	Perris
34	Harley Knox Boulevard east of Indian Street	Perris
35	Old Frontage Road north of Cactus Avenue	MV

ID	ROADWAY SEGMENTS	JURISDICTION*
36	Frederick Street north of Cactus Avenue	MV
37	Heacock Street north of Cactus Avenue	MV
38	Heacock Street between Cactus Avenue and John F. Kennedy Drive	MV, MJPA
39	Heacock Street between John F. Kennedy Drive and Gentian Avenue	MV, MJPA
40	Heacock Street between Gentian Avenue to Iris Avenue	MV, MJPA
41	Heacock Street between Iris Avenue and Driveway 1	MV, MJPA
42	Heacock Street between Driveway 1 and Driveway 2	MV, MJPA
43	Heacock Street between Driveway 2 and Krameria Avenue (EW)	MV, MJPA
44	Heacock Street between Krameria Avenue (EW) and Driveway 3	MV, MJPA
45	Heacock Street south of Driveway 3	MV, MJPA
46	Heacock Street north of San Michele Road	MV, MJPA
47	Heacock Street between San Michele Road and Nandina Avenue	MV, MJPA
48	Heacock Street south of Nandina Avenue	MV, MJPA
49	Concord Way north of Iris Avenue	MV
50	*Cosmos Street between Driveway 11 and Driveway 12*	*MV*
51	*Cosmos Street between Driveway 12 and Driveway 13*	*MV*
52	*Cosmos Street between Driveway 13 and Krameria Avenue (EW)*	*MV*
53	*Krameria Avenue (NS) between Krameria Avenue (EW) and Driveway 14*	*MV*
54	*Krameria Avenue (NS) between Driveway 14 and Driveway 15/Krameria Avenue*	*MV*
55	Indian Street north of Iris Avenue	MV
56	Indian Street south of Iris Avenue	MV
57	Indian Street north of Krameria Avenue	MV
58	Indian Street south of Krameria Avenue	MV
59	Indian Street north of San Michele Road	MV
60	Indian Street between San Michele Road to Nandina Avenue	MV
61	Indian Street south of Nandina Avenue	MV
62	Indian Street north of Harley Knox Boulevard	Perris
63	Indian Street south of Harley Knox Boulevard	Perris

*MV = City of Moreno Valley; MJPA = March Joint Powers Authority; Perris = City of Perris; RivCo = County of Riverside
Source: Urban Crossroads, Inc., 2011f, Table 1-2.

Table 4.11-2 Intersection Analysis Locations

ID	ROADWAY SEGMENTS	JURISDICTION*
1	I-215 Southbound Ramps / Cactus Avenue	Caltrans
2	I-215 Southbound Ramps / Harley Knox Boulevard	Caltrans
3	I-215 Northbound Ramps / Cactus Avenue	Caltrans
4	I-215 Northbound Ramps / Harley Knox Boulevard	Caltrans
5	Frederick Street / Cactus Avenue	MV, MJPA
6	Heacock Street / Cactus Avenue	MV, MJPA
7	Heacock Street / John F. Kennedy Drive	MV, MJPA
8	Heacock Street / Gentian Avenue	MV, MJPA
9	Heacock Street / Iris Avenue	MV, MJPA
10	*Heacock Street / Driveway 1*	*MV, MJPA*
11	*Heacock Street / Driveway 2*	*MV, MJPA*
12	*Heacock Street / Krameria Avenue (EW)*	*MV, MJPA*
13	*Heacock Street / Driveway 3*	*MV, MJPA*
14	Heacock Street / San Michele Road	MV, MJPA
15	Heacock Street / Nandina Avenue	MV, MJPA
16	*Driveway 4 / Iris Avenue*	*MV*
17	*Driveway 5 / Krameria Avenue (EW)*	*MV*
18	*Driveway 6 / Iris Avenue*	*MV*
19	*Driveway 7 / Krameria Avenue (EW)*	*MV*
20	*Driveway 8 / Krameria Avenue (EW)*	*MV*
21	*Driveway 9*/Concord Way / Iris Avenue	MV
22	*Driveway 10 / Krameria Avenue (EW)*	*MV*
23	*Cosmos Street / Driveway 11*	*MV*
24	*Cosmos Street / Driveway 12*	*MV*
25	*Cosmos Street / Driveway 13*	*MV*
26	*Cosmos Street / Krameria Avenue (EW)*	*MV*
27	*Krameria Avenue (NS) / Driveway 14*	*MV*
28	*Krameria Avenue (NS) / Driveway 15/Krameria Avenue*	*MV*
29	Indian Street / Iris Avenue	MV
30	Indian Street / Krameria Avenue	MV
31	Indian Street / San Michele Road	MV
32	Indian Street / Nandina Avenue	MV
33	Indian Street / Harley Knox Boulevard	Perris

*Caltrans = California Department of Transportation; MV = City of Moreno Valley; MJPA = March Joint Powers Authority
Perris = City of Perris

Source: Urban Crossroads, Inc., 2011f, Table 1-1.

Table 4.11-3 Freeway Mainline Segment Analysis Locations

ID	FREEWAY MAINLINE SEGMENTS	JURISDICTION
1	I-215 Freeway – Southbound, north of Cactus Avenue	Caltrans
2	I-215 Freeway – Southbound, south of Cactus Avenue	Caltrans
3	I-215 Freeway – Southbound, north of Harley Knox Boulevard	Caltrans
4	I-215 Freeway – Southbound, south of Harley Knox Boulevard	Caltrans
5	I-215 Freeway – Northbound, north of Cactus Avenue	Caltrans
6	I-215 Freeway – Northbound, south of Cactus Avenue	Caltrans
7	I-215 Freeway – Northbound, north of Harley Knox Boulevard	Caltrans
8	I-215 Freeway – Northbound, south of Harley Knox Boulevard	Caltrans

Source: Urban Crossroads, Inc., 2011f, Table 1-3.

Table 4.11-4 Freeway Merge/Diverge Ramp Junction Analysis Locations

ID	FREEWAY MERGE/DIVERGE RAMP JUNCTIONS
1	I-215 Freeway – Southbound, Off-Ramp at Cactus Avenue (Diverge)
2	I-215 Freeway – Southbound, Loop Off-Ramp at Cactus Avenue (Diverge)
3	I-215 Freeway – Southbound, On-Ramp at Cactus Avenue (Merge)
4	I-215 Freeway – Southbound, Off-Ramp at Harley Knox Boulevard (Diverge)
5	I-215 Freeway – Southbound, On-Ramp at Harley Knox Boulevard (Merge)
6	I-215 Freeway – Northbound, On-Ramp at Cactus Avenue (Merge)
7	I-215 Freeway – Northbound, Loop On-Ramp at Cactus Avenue (Merge)
8	I-215 Freeway – Northbound, Off-Ramp at Cactus Avenue (Diverge)
9	I-215 Freeway – Northbound, On-Ramp at Harley Knox Boulevard (Merge)
10	I-215 Freeway – Northbound, Off-Ramp at Harley Knox Boulevard (Diverge)

Source: Urban Crossroads, Inc., 2011f, Table 1-4.

Table 4.11-5 Existing (2011) Conditions Roadway Volume/Capacity (V/C) Analysis[1]

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
1	Cactus Avenue	West of I-215 Freeway	37,500	6,600	0.18	A	D
2		I-215 SB Ramps to I-215 NB On-Ramp	25,000	13,100	0.52	A	D
3		I-215 NB On-Ramp to I-215 NB Ramps/Frontage Road	37,500	30,400	0.81	D	D
4		I-215 to Elsworth Street	37,500	30,100	0.80	C	D
5		Veterans Way to Frederick Street	37,500	32,300	0.86	D	D
6		East of Frederick Street	46,900	35,600	0.76	C	D
7		West of Heacock Street	46,900	27,500	0.59	A	D
8		East of Heacock Street	37,500	17,900	0.48	A	C
9	Meyer Drive	West of Heacock Street	37,500	6,400	0.17	A	C
10	John F. Kennedy Drive	East of Heacock Street	37,500	9,200	0.25	A	C
11	Gentian Avenue	East of Heacock Street	12,500	1,800	0.14	A	D
12	Iris Avenue	Heacock Street to Concord Way	12,500	10,400	0.83	D	D
15		East of Driveway 9/Concord Way	12,500	10,300	0.82	D	D
16		West of Indian Street	12,500	10,800	0.86	D	D
17		East of Indian Street	25,000	13,300	0.53	A	D
25	Krameria Avenue	East of Indian Street	12,500	1,900	0.15	A	C
26	San Michele Road	Heacock Street to Indian Street	12,500	1,500	0.12	A	D
27		East of Indian Street	25,000	2,900	0.12	A	D
28	Nandina Avenue	Heacock Street to Indian Street	12,500	1,200	0.10	A	D
29		East of Indian Street	12,500	1,600	0.13	A	D
30	Harley Knox Boulevard	West of I-215 Freeway	37,500	7,200	0.19	A	D
31		I-215 SB Ramps to I-215 NB Ramps	37,500	9,500	0.25	A	D
32		East of I-215 Freeway	25,000	12,400	0.50	A	D
33		West of Indian Street	12,500	9,600	0.77	C	D
34		East of Indian Street	12,500	5,200	0.42	A	D
35	Frontage Road	North of Cactus Avenue	12,500	2,300	0.18	A	D
36	Frederick Street	North of Cactus Avenue	37,500	7,900	0.21	A	D
37	Heacock Street	North of Cactus Avenue	37,500	12,200	0.33	A	D
38		Cactus Avenue to John F. Kennedy Drive	37,500	19,600	0.52	A	D
39		John F. Kennedy Drive to Gentian Avenue	37,500	15,100	0.40	A	D
40		Gentian Avenue to Iris Ave	12,500	***12,700***	***1.02***	***F***	D

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
41		South of Iris Avenue	12,500	2,300	0.18	A	D
46		North of San Michele Road	12,500	2,800	0.22	A	D
47		San Michele Road to Nandina Avenue	12,500	1,400	0.11	A	D
48		South of Nandina Avenue	12,500	300	0.02	A	D
49	Concord Way	North of Iris Avenue	12,500	100	0.01	A	C
55		North of Iris Avenue	12,500	8,100	0.65	B	D
56		South of Iris Avenue	12,500	7,000	0.56	A	D
57		North of Krameria Avenue	12,500	3,600	0.29	A	D
58		South of Krameria Avenue	12,500	1,900	0.15	A	D
59		North of San Michele Road	25,000	100	0.00	A	D
60	Indian Street	San Michele Road to Nandina Avenue	12,500	3,100	0.25	A	D
61		South of Nandina Avenue	12,500	4,800	0.38	A	D
62		North of Harley Knox Boulevard	12,500	6,000	0.48	A	D
63		South of Harley Knox Boulevard	12,500	1,200	0.10	A	D

1: Per Figure 9-2: City of Moreno Valley Level of Service (LOS) Standards, City of Moreno Valley General Plan Circulation Element.
2: These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic), and pedestrian and bicycle traffic.
3: ***Bold and italics*** indicate unacceptable LOS.
Source: Urban Crossroads, Inc., 2011f, Table 3-2.

Table 4.11-6 Intersection Analysis for Existing (2011) Conditions

ID	INTERSECTION	TRAFFIC CONTROL[2]	DELAY[1] (SECONDS)		LOS[4]	
			AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Avenue	TS	14.2	23.4	B	C
2	I-215 SB Ramps / Harley Knox Boulevard	TS	26.6	27.6	C	C
3	I-215 NB Ramps / Cactus Avenue	TS	12.9	4.8	B	A
4	I-215 NB Ramps / Harley Knox Boulevard	TS	18.1	18.1	B	B
5	Frederick Street / Cactus Avenue	TS	18.3	16.5	B	B
6	Heacock Street / Cactus Avenue	TS	40.8	32.3	D	C
7	Heacock Street / John F. Kennedy Drive	TS	30.8	34.6	C	C
8	Heacock Street / Gentian Avenue	CSS	21.8	27.8	C	D
9	Heacock Street / Iris Avenue	AWS	21.1	***42.3***	C	***F***[3]
14	Heacock Street / San Michele Road	TS	30.4	30.8	C	C
15	Heacock Street / Nandina Avenue	CSS	8.6	8.4	A	A
21	Concord Way / Iris Avenue	CSS	15.6	9.8	C	A
29	Indian Street / Iris Avenue	TS	51.5	39.3	D	D
30	Indian Street / Krameria Avenue	CSS	9.3	11.3	A	B
31	Indian Street / San Michele Road	TS	28.1	20.0	C	B
32	Indian Street / Nandina Avenue	TS	30.9	27.6	C	C
33	Indian Street / Harley Knox Boulevard	AWS	12.7	11.7	B	B

1: Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
2: CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal.
3: Volume-to-capacity ratio is greater than 1.00; Intersection unstable; Level of Service "F."
4: ***Bold and italics*** indicate unacceptable LOS.
Source: Urban Crossroads, Inc., 2011f, Table 3-1.

Table 4.11-7 Existing Conditions (2011) Conditions Stacking Length Summary at I-215 / Cactus Avenue and I-215 / Harley Knox Boulevard

FREEWAY RAMP INTERSECTION LOCATION / MOVEMENT	STACKING DISTANCE (FEET)	95TH PERCENTILE STACKING DISTANCE REQUIRED (FEET)		ACCEPTABLE?[1]	
		AM	PM	AM	PM
I-215 SB Ramps / Cactus Avenue:					
Southbound Right Turn Lane	1,115	19	0	Yes	Yes
Eastbound Through Lane	675	65	109	Yes	Yes
Eastbound Right Turn Lane	675	22	38	Yes	Yes
Westbound Left Turn Lane	1,022	426	659[2]	Yes	Yes
Westbound Through Lane	1,182	43	7	Yes	Yes
I-215 NB Ramps / Cactus Avenue:					
Northbound Left Turn Lane	145	145	30	Yes	Yes
Northbound Through Lane	1,650	64	21	Yes	Yes
Southbound Left Turn Lane	115	13	42	Yes	Yes
Southbound Right Turn Lane	560	19	21	Yes	Yes
Eastbound Left Turn Lane	190	16	11	Yes	Yes
Eastbound Through Lane	1,182	104	87	Yes	Yes
Westbound Through Lane	1,120	451[2]	220	Yes	Yes
I-215 SB Ramps / Harley Knox Boulevard:					
Southbound Through Lane	1,109	291[2]	294[2]	Yes	Yes
Southbound Right Turn Lane	265	34	53	Yes	Yes
Eastbound Through Lane	836	84	63	Yes	Yes
Eastbound Right Turn Lane	836	18	8	Yes	Yes
Westbound Left Turn Lane	95	***118***[2]	***100***	***No***	***No***
Westbound Through Lane	280	30	19	Yes	Yes
I-215 NB Ramps / Harley Knox Boulevard					
Northbound Through Lane	929	51	15	Yes	Yes
Northbound Right Turn Lane	215	44	41	Yes	Yes
Eastbound Left Turn Lane	75	***154***	***155***	***No***	***No***
Eastbound Through Lane	280	87	81	Yes	Yes
Westbound Through Lane	594	87	74	Yes	Yes
Westbound Right Turn Lane	594	45	48	Yes	Yes

1: Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable. ***Bold and italics*** indicate unacceptable stacking distance.
2: 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
Source: Urban Crossroads, Inc., 2011f, Table 3-3.

Table 4.11-8 Existing (2011) I-215 Freeway Ramp Junction Merge/Diverge Analysis

I-215 RAMP	LANES ON FREEWAY	AM PEAK HOUR		PM PEAK HOUR	
		DENSITY[2]	LOS	DENSITY[2]	LOS
Southbound:					
Off-Ramp at Cactus Avenue	4	15.5	B	22.2	C
Loop Off-Ramp at Cactus Avenue - Upstream	4	16.8	B	24.6	C
Loop Off-Ramp at Cactus Avenue - Downstream	4	16.8	B	24.6	C
On-Ramp at Cactus Avenue	3	19.1	B	29.5	D
Off-Ramp at Harley Knox Boulevard	3	22.2	C	29.5	D
On-Ramp at Harley Knox Boulevard	3	18.1	B	23.7	C
Northbound:					
On-Ramp at Cactus Avenue	3	29.1	D	28.0	C
Loop On-Ramp at Cactus Avenue - Downstream	3	24.6	C	21.6	C
Loop On-Ramp at Cactus Avenue - Upstream	3	24.6	C	21.6	C
Off-Ramp at Cactus Avenue	3	32.5	D	26.4	C
On-Ramp at Harley Knox Boulevard.	2	21.8	C	18.4	B
Off-Ramp at Harley Knox Boulevard	2	22.2	C	17.6	B

1: Merge/Diverge analysis has been conducted twice where nearby ramps exist both upstream and downstream.
2: Density is measured by passenger cars per mile per lane (pc/mi/ln).
Source: Urban Crossroads, Inc., 2011f, Table 3-6.

Table 4.11-9 Existing (2011) Conditions for I-215 Directional Peak Hour Volumes

EXISTING (2011) DIRECTION PEAK HOUR TOTAL VOLUME[1]									
I-215 FREEWAY MAINLINE SEGMENT	2-WAY			DIRECTIONAL SPLIT				AM	PM
	ADT	AM%	PM%	AM %	PM %	KD% AM[2]	KD% PM[2]		
Southbound:									
N of Cactus	130,800	6.17%	7.23%	42%	54%	2.58%	3.93%	3,381	5,144
S of Cactus	128,000	6.58%	7.22%	39%	57%	2.58%	4.10%	3,299	5,245
N of Harley Knox	111,800	5.64%	6.21%	47%	62%	2.63%	3.82%	2,939	4,274
S of Harley Knox	102,700	5.72%	6.06%	46%	62%	2.65%	3.76%	2,717	3,857
Northbound:									
N of Cactus	130,800	6.17%	7.23%	58%	46%	3.59%	3.30%	4,691	4,310
S of Cactus	128,000	6.58%	7.22%	61%	43%	4.00%	3.12%	5,124	3,992
N of Harley Knox	111,800	5.64%	6.21%	53%	38%	3.01%	2.39%	3,366	2,673
S of Harley Knox	102,700	5.72%	6.06%	54%	38%	3.07%	2.30%	3,158	2,367

Existing (2011) Directional Peak Hour Volumes by Vehicle Type								
I-215 Freeway Mainline Segment	AM Peak Hour				PM Peak Hour			
	TOTAL ADT	Truck %	Cars	Trucks	TOTAL ADT	Truck %	Cars	Trucks
Southbound:								
N of Cactus	3,381	5.41%	3,198	183	5,144	2.97%	4,991	153
S of Cactus	3,299	4.52%	3,150	149	5,245	2.71%	5,103	142
N of Harley Knox	2,939	4.49%	2,807	132	4,274	3.95%	4,105	169
S of Harley Knox	2,717	4.56%	2,593	124	3,857	3.91%	3,706	151
Northbound:								
N of Cactus	4,691	1.81%	4,606	85	4,310	2.18%	4,216	94
S of Cactus	5,124	2.26%	5,008	116	3,992	2.66%	3,886	106
N of Harley Knox	3,366	3.98%	3,232	134	2,673	3.44%	2,581	92
S of Harley Knox	3,158	4.40%	3,019	139	2,367	3.59%	2,282	85

1: 2011 peak hour directional volumes from the Caltrans Performance Measurement System (PeMS) website.
2: KD% AM = 2-Way AM% x Directional Split AM%; KD% PM = 2-Way PM% x Directional Split PM%
K is the percentage of the ADT in both directions during the peak hour and D is the percentage of traffic in the peak direction during the peak hour. The KD factor is the product of K and D (K x D) and represents the percentage of ADT in the peak direction during the peak hour.
Source: Urban Crossroads, Inc., 2011f, Table 3-4.

Table 4.11-10 Existing (2011) Conditions Basic Freeway Segment Analysis

I-215 FREEWAY MAINLINE SEGMENT	TOTAL ADT		LANES[1]	DENSITY[2]		LOS	
	AM	PM		AM	PM	AM	PM
Southbound:							
N of Cactus	3,381	5,144	4	14.5	21.8	B	C
S of Cactus	3,299	5,245	3	18.8	30.9	C	D
N of Harley Knox	2,939	4,274	3	16.7	24.3	B	C
S of Harley Knox	2,717	3,857	3	15.5	21.9	B	C
Northbound:							
N of Cactus	4,691	4,310	4	19.8	18.2	C	C
S of Cactus	5,124	3,992	3	29.7	22.6	D	C
N of Harley Knox	3,366	2,673	3	19.1	15.1	C	B
S of Harley Knox	3,158	2,367	3	18.0	13.5	B	B

1: Number of lanes in the specified direction; based on existing conditions.
2: Density is measured by passenger cars per mile per lane (pc/mi/ln).
Source: Urban Crossroads, Inc., 2011f, Table 3-5.

Table 4.11-11 Roadway Segment Capacity LOS Thresholds[1]

Facility Type	Level of Service (LOS) Capacity (ADT)*				
	A	B	C	D	E
Six Lane Divided Arterial	33,900	39,400	45,000	50,600	56,300
Four Lane Divided Arterial	22,500	26,300	30,000	33,800	37,500
Four Lane Undivided Arterial	15,000	17,500	20,000	22,500	25,000
Two Lane Industrial Collector	7,500	8,800	10,000	11,300	12,500
Two Lane Undivided Residential	N/A	N/A	N/A	N/A	2,000

1: These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective roadway classifications. Capacity is affected by such factors as intersections (spacing, configuration, and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic), and pedestrian and bicycle traffic.
*ADT = Average Daily Traffic volume
Source: Urban Crossroads, Inc., 2011f, Table 2-3.

Table 4.11-12 Signalized Intersection LOS Thresholds

LOS	DESCRIPTION	AVERAGE CONTROL DELAY (SECONDS)
A	Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high volume to capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	80.01 and up

Source: HCM 2000, Chapter 16.

Table 4.11-13 Unsignalized Intersection LOS Thresholds

LOS	DESCRIPTION	AVERAGE CONTROL PER VEHICLE (SECONDS)
A	Little or no delays.	0 to 10.00
B	Short traffic delays.	10.01 to 15.00
C	Average traffic delays.	15.01 to 25.00
D	Long traffic delays.	25.01 to 35.00
E	Very long traffic delays.	35.01 to 50.00
F	Extreme traffic delays with intersection capacity exceeded.	> 50.00

Source: HCM 2000, Chapter 17.

Table 4.11-14 Freeway Mainline LOS Thresholds

LOS	DESCRIPTION	DENSITY RANGE (PC/MI/LN)*
A	Free-flow operations in which vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed.	0.0 – 11.0
B	Relative free-flow operations in which vehicle maneuvers within the traffic stream are slightly restricted. Effects of minor incidents are easily absorbed.	11.1 – 18.0
C	Travel is still at relative free-flow speeds, but freedom to maneuver within the traffic stream is noticeably restricted. Minor incidents may be absorbed, but local deterioration in service will be substantial. Queues begin to form behind significant blockages.	18.1 – 26.0
D	Speeds begin to decline slightly and flows and densities begin to increase more quickly. Freedom to maneuver is noticeably limited. Minor incidents can be expected to create queuing as the traffic stream has little space to absorb disruptions.	26.1 – 35.0
E	Operation at capacity. Vehicles are closely spaced with little room to maneuver. Any disruption in the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. Any incident can be expected to produce a serious disruption in traffic flow and extensive queuing.	35.1 – 45.0
F	Breakdown in vehicle flow. Arrival flow exceeds discharge flow.	>45.0

*pc/mi/ln = passenger cars per mile per lane.
Source: HCM 2000, Chapter 23.

Table 4.11-15 Merge and Diverge LOS Thresholds

LEVEL OF SERVICE	DENSITY RANGE (PC/MI/LN)*
A	0.0 – 11.0
B	11.1 – 18.0
C	18.1 – 26.0
D	26.1 – 35.0
E	35.1 – 45.0
F	>45.0

*pc/mi/ln = passenger cars per mile per lane.
Source: HCM 2000, Chapter 25.

Table 4.11-16 Project Trip Generation Summary

LAND USE	AM PEAK HOUR TRIPS[3]			PM PEAK HOUR TRIPS[3]			DAILY TRIPS
	IN	OUT	TOTAL	IN	OUT	TOTAL	
Parcel 1 (High-Cube Warehouse, 1,103,003 square feet)							
Passenger Cars	30	15	46	15	36	51	731
Truck Trips (PCE)[1]	92	46	138	46	107	153	2,207
2-axle:	*6*	*3*	*9*	*3*	*7*	*10*	*145*
3-axle:	*18*	*9*	*28*	*9*	*21*	*31*	*442*
4-axle:	*68*	*34*	*101*	*34*	*79*	*113*	*1,620*
Parcel 2 (High-Cube Warehouse, 277,243 square feet)							
Passenger Cars	8	4	11	4	9	13	184
Truck Trips (PCE)[1]	23	12	35	12	27	39	555
2-axle:	*2*	*1*	*2*	*1*	*2*	*3*	*37*
3-axle:	*5*	*2*	*7*	*2*	*5*	*8*	*111*
4-axle:	*17*	*8*	*25*	*8*	*20*	*28*	*407*
Parcel 3 (Warehousing, 87,429 square feet)							
Passenger Cars	10	2	12	3	10	13	143
Truck Trips (PCE)[1]	29	7	36	10	29	39	432
2-axle:	*2*	*0*	*2*	*1*	*2*	*3*	*28*
3-axle:	*6*	*1*	*7*	*2*	*6*	*8*	*87*
4-axle:	*21*	*5*	*27*	*7*	*21*	*29*	*317*
Parcel 4 (General Light Industrial, 16,732 square feet)							
Passenger Cars	11	1	12	2	11	13	94
Truck Trips (PCE)[1]	6	1	7	1	7	8	55
2-axle:	*1*	*0*	*1*	*0*	*1*	*1*	*9*
3-axle:	*1*	*0*	*1*	*0*	*1*	*1*	*10*
4-axle:	*4*	*1*	*5*	*1*	*4*	*5*	*35*
Total Passenger Cars:	59	23	82	24	66	89	1,151
Total Truck Trips (PCE):	151	66	216	68	170	238	3,249
PROJECT TOTAL (PCE)[2]:	209	89	298	92	236	328	4,400

1: Based on the following Passenger Car Equivalent Factors: 2-axle = 1.5 PCE, 3-axle = 2.0 PCE, 4+-axle = 3.0 PCE.
2: TOTAL TRIPS (PCE) = Passenger Cars + Truck Trips (PCE).
3: AM and PM peak hour trips are rounded to the nearest whole number; therefore, total trips may be 1 value higher or lower than the AM and PM trips shown when totaled.
Source: Urban Crossroads, Inc., 2011f, Table 4-2.

Table 4.11-17 Existing Plus Project (E+P) Conditions Roadway Volume/Capacity (V/C) Analysis[1]

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
1	Cactus Avenue	West of I-215 Freeway	37,500	6,600	0.18	A	D
2		I-215 SB Ramps to I-215 NB On-Ramp	25,000	13,900	0.56	A	D
3		I-215 NB On-Ramp to I-215 NB Ramps/Frontage Road	37,500	32,000	0.85	D	D
4		I-215 to Elsworth Street	37,500	31,700	0.85	D	D
5		Veterans Way to Frederick Street	37,500	***34,000***	***0.91***	***E***	D
6		East of Frederick Street	46,900	37,300	0.80	C	D
7		West of Heacock Street	46,900	29,200	0.62	B	D
8		East of Heacock Street	37,500	17,900	0.48	A	C
9	Meyer Drive	West of Heacock Street	37,500	6,400	0.17	A	C
10	John F. Kennedy Drive	East of Heacock Street	37,500	9,200	0.25	A	C
11	Gentian Avenue	East of Heacock Street	12,500	1,800	0.14	A	D
12	Iris Avenue	Heacock Street to Driveway 4	25,000	10,700	0.43	A	D
13		Driveway 4 to Driveway 6	25,000	10,700	0.43	A	D
14		Driveway 6 to Driveway 9/Concord Way	25,000	10,800	0.43	A	D
15		East of Driveway 9/Concord Way	25,000	10,700	0.43	A	D
16		West of Indian Street	12,500	11,200	0.90	D	D
17		East of Indian Street	25,000	13,700	0.55	A	D
18	Krameria Avenue	Heacock Street to Driveway 5	12,500	2,400	0.19	A	D
19		Driveway 5 to Driveway 7	12,500	2,300	0.18	A	D
20		Driveway 7 to Driveway 8	12,500	2,100	0.17	A	D
21		Driveway 8 to Driveway 10	12,500	1,600	0.13	A	D
22		Driveway 10 to Cosmos Street/Krameria Av. (NS)	12,500	1,600	0.13	A	D
23		East of Krameria Avenue (NS)	12,500	0	0.00	A	D
24		West of Indian Street	12,500	0	0.00	A	D
25		East of Indian Street	12,500	2,100	0.17	A	C
26	San Michele Road	Heacock Street to Indian Street	12,500	3,200	0.26	A	D
27		East of Indian Street	25,000	2,900	0.12	A	D
28	Nandina Avenue	Heacock Street to Indian Street	12,500	1,300	0.10	A	D
29		East of Indian Street	12,500	1,600	0.13	A	D
30	Harley Knox	West of I-215 Freeway	37,500	7,200	0.19	A	D

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
31	Boulevard	I-215 SB Ramps to I-215 NB Ramps	37,500	10,300	0.27	A	D
32		East of I-215 Freeway	25,000	14,000	0.56	A	D
33		West of Indian Street	12,500	11,200	0.90	D	D
34		East of Indian Street	12,500	5,500	0.44	A	D
35	Frontage Road	North of Cactus Avenue	12,500	2,300	0.18	A	D
36	Frederick Street	North of Cactus Avenue	37,500	7,900	0.21	A	D
37	Heacock Street	North of Cactus Avenue	37,500	12,600	0.34	A	D
38		Cactus Avenue to John F. Kennedy Drive	37,500	21,600	0.58	A	D
39		John F. Kennedy Drive to Gentian Avenue	37,500	17,100	0.46	A	D
40		Gentian Avenue to Iris Avenue	12,500	***14,700***	***1.18***	***F***	D
41		Iris Avenue to Driveway 1	25,000	4,400	0.18	A	D
42		Driveway 1 to Driveway 2	25,000	4,200	0.17	A	D
43		Driveway 2 to Krameria Avenue (EW)	25,000	4,500	0.18	A	D
44		Krameria Avenue (EW) to Driveway 3	25,000	4,000	0.16	A	D
45		South of Driveway 3	25,000	4,100	0.16	A	D
46		North of San Michele Road	12,500	4,600	0.37	A	D
47		San Michele Road to Nandina Avenue	12,500	1,500	0.12	A	D
48		South of Nandina Avenue	12,500	300	0.02	A	D
49	Concord Way	North of Iris Avenue	12,500	100	0.01	A	C
50	"A" Street	Driveway 11 to Driveway 12	12,500	0	0.00	A	C
51		Driveway 12 to Driveway 13	12,500	600	0.05	A	C
52		Driveway 13 to Krameria Avenue (EW)	12,500	1,200	0.10	A	C
53	Krameria Avenue (NS)	Krameria Avenue (EW) to Driveway 14	12,500	300	0.02	A	C
54		Driveway 14 to Driveway 15/Krameria Av.-South (EW)	12,500	300	0.02	A	C
55	Indian Street	North of Iris Avenue	12,500	8,100	0.65	B	D
56		South of Iris Avenue	12,500	7,000	0.56	A	D
57		North of Krameria Avenue	12,500	3,600	0.29	A	D
58		South of Krameria Avenue	12,500	1,900	0.15	A	D
59		North of San Michele Road	25,000	100	0.00	A	D
60		San Michele Road to Nandina Avenue	12,500	4,800	0.38	A	D
61		South of Nandina Avenue	12,500	6,600	0.53	A	D
62		North of Harley Knox Boulevard	12,500	7,800	0.62	B	D

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
63		South of Harley Knox Boulevard	12,500	1,200	0.10	A	D

1: Per Figure 9-2: City of Moreno Valley Level of Service (LOS) Standards, City of Moreno Valley General Plan Circulation Element.
2: These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic), and pedestrian and bicycle traffic.
3: ***Bold and italics*** indicate unacceptable LOS.
Source: Urban Crossroads, Inc., 2011f, Table 5-2.

Table 4.11-18 Intersection Analysis for Existing Plus Project (E+P) Conditions

ID	INTERSECTION	JURISDICTION[2]	TRAFFIC CONTROL[3]	DELAY[1] (SECONDS)		LOS[4]	
				AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Avenue	Caltrans, RivCo	TS	14.2	24.2	B	C
2	I-215 SB Ramps / Harley Knox Boulevard	Caltrans, RivCo	TS	28.9	35.0	C	D
3	I-215 NB Ramps / Cactus Avenue	Caltrans, MJPA	TS	13.4	5.1	B	A
4	I-215 NB Ramps / Harley Knox Boulevard	Caltrans, Perris	TS	18.6	18.5	B	B
5	Frederick Street / Cactus Avenue	MV, MJPA	TS	18.4	15.6	B	B
6	Heacock Street / Cactus Avenue	MV, MJPA	TS	41.3	33.8	D	C
7	Heacock Street / John F. Kennedy Drive	MV, MJPA	TS	31.2	34.6	C	C
8	Heacock Street / Gentian Avenue	MV, MJPA	CSS	25.8	33.9	D	D
9	Heacock Street / Iris Avenue	MV, MJPA	AWS	24.9	***45.7***	C	***F***[5]
10	Heacock Street / Driveway 1	MV, MJPA	CSS	9.3	9.4	A	A
11	Heacock Street / Driveway 2	MV, MJPA	CSS	10.4	10.3	B	B
12	Heacock Street / Krameria Avenue (EW)	MV, MJPA	CSS	10.3	10.1	B	B
13	Heacock Street / Driveway 3	MV, MJPA	CSS	10.6	10.5	B	B
14	Heacock Street / San Michele Road	MV, MJPA	TS	31.9	32.3	C	C
15	Heacock Street / Nandina Avenue	MV, MJPA	CSS	8.6	8.4	A	A
16	Driveway 4 / Iris Avenue	MV	CSS	9.0	10.0	A	A
17	Driveway 5 / Krameria Avenue (EW)	MV	CSS	8.7	9.1	A	A
18	Driveway 6 / Iris Avenue	MV	CSS	20.5	15.8	C	C
19	Driveway 7 / Krameria Avenue (EW)	MV	CSS	9.5	9.4	A	A
20	Driveway 8 / Krameria Avenue (EW)	MV	CSS	9.2	9.3	A	A
21	Driveway 9/Concord Way / Iris Avenue	MV	CSS	15.3	10.0	C	A
22	Driveway 10 / Krameria Avenue (EW)	MV	CSS	8.8	8.9	A	A
23	Cosmos Street / Driveway 11	MV	CSS	7.2	8.3	A	A
24	Cosmos Street / Driveway 12	MV	CSS	8.3	8.4	A	A
25	Cosmos Street / Driveway 13	MV	CSS	8.4	8.6	A	A
26	Cosmos Street / Krameria Avenue (EW)	MV	CSS	8.9	8.9	A	A
27	Krameria Avenue (NS) / Driveway 14	MV	CSS	8.6	8.6	A	A
28	Krameria Avenue (NS) / Driveway 15	MV	CSS	8.6	8.6	A	A
29	Indian Street / Iris Avenue	MV	TS	52.0	40.0	D	D
30	Indian Street / Krameria Avenue	MV	CSS	9.9	12.5	A	B
31	Indian Street / San Michele Road	MV	TS	26.6	19.8	C	B
32	Indian Street / Nandina Avenue	MV	TS	31.4	28.2	C	C
33	Indian Street / Harley Knox Boulevard	Perris	AWS	15.4	13.4	C	B

1: Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
2: MV = City of Moreno Valley; MJPA = March Joint Powers Authority; RivCo = Riverside County; Perris = City of Perris
3: CSS = Cross-Street Stop; AWS = All-Way Stop; TS = Traffic Signal
4: ***Bold and italics*** indicate unacceptable LOS.
5: Volume-to-capacity ratio is greater than 1.00; Intersection unstable; LOS "F."
Source: Urban Crossroads, Inc., September 8, 2011.

Table 4.11-19 Opening Year (2016) Conditions Roadway Volume/Capacity (V/C) Analysis[1]

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
				ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
1	Cactus Avenue	West of I-215 Freeway	37,500	7,287	0.19	A	D	7,287	0.19	A	D
2		I-215 SB Ramps to I-215 NB On-Ramp	25,000	14,463	0.58	A	D	15,263	0.61	B	D
3		I-215 NB On-Ramp to I-215 NB Ramps/Frontage Road	37,500	33,564	0.90	D	D	***35,164***	***0.94***	***E***	D
4		I-215 to Elsworth Street	37,500	33,233	0.89	D	D	***34,833***	***0.93***	***E***	D
5		Veterans Way to Frederick Street	37,500	***35,662***	***0.95***	***E***	D	***37,362***	***1.00***	***E***	D
6		East of Frederick Street	46,900	39,305	0.84	D	D	41,005	0.87	D	D
7		West of Heacock Street	46,900	30,362	0.65	B	D	32,062	0.68	B	D
8		East of Heacock Street	37,500	19,763	0.53	A	C	19,763	0.53	A	C
9	Meyer Drive	West of Heacock Street	37,500	7,066	0.19	A	C	7,066	0.19	A	C
10	John F. Kennedy Drive	East of Heacock Street	37,500	10,158	0.27	A	C	10,158	0.27	A	C
11	Gentian Avenue	East of Heacock Street	12,500	1,987	0.16	A	D	1,987	0.16	A	D
12	Iris Avenue	Heacock Street to Driveway 4	25,000	11,482	0.46	A	D	11,782	0.47	A	D
13		Driveway 4 to Driveway 6	25,000	11,482	0.46	A	D	11,782	0.47	A	D
14		Driveway 6 to Driveway 9/Concord Way	25,000	11,482	0.46	A	D	11,882	0.48	A	D
15		East of Driveway 9/Concord Way	25,000	11,372	0.45	A	D	11,772	0.47	A	D
16		West of Indian Street	12,500	***11,924***	***0.95***	***E***	D	***12,324***	***0.99***	***E***	D
17		East of Indian Street	25,000	14,684	0.59	A	D	15,084	0.60	A	D
18	Krameria Avenue	Heacock Street to Driveway 5	12,500	0	0.00	A	D	2,400	0.19	A	D
19		Driveway 5 to Driveway 7	12,500	0	0.00	A	D	2,300	0.18	A	D
20		Driveway 7 to Driveway 8	12,500	0	0.00	A	D	2,100	0.17	A	D
21		Driveway 8 to Driveway 10	12,500	0	0.00	A	D	1,600	0.13	A	D
22		Driveway 10 to Cosmos Street/Krameria Avenue (NS)	12,500	0	0.00	A	D	1,600	0.13	A	D

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
				ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
23		East of Krameria Avenue (NS)	12,500	0	0.00	A	D	0	0.00	A	D
24		West of Indian Street	12,500	0	0.00	A	D	0	0.00	A	D
25		East of Indian Street	12,500	2,098	0.17	A	C	2,298	0.18	A	C
26	San Michele Road	Heacock Street to Indian Street	12,500	1,656	0.13	A	D	3,356	0.27	A	D
27		East of Indian Street	25,000	3,202	0.13	A	D	3,202	0.13	A	D
28	Nandina Avenue	Heacock Street to Indian Street	12,500	1,325	0.11	A	D	1,425	0.11	A	D
29		East of Indian Street	12,500	1,767	0.14	A	D	1,767	0.14	A	D
30	Harley Knox Boulevard	West of I-215 Freeway	37,500	7,949	0.21	A	D	7,949	0.21	A	D
31		I-215 SB Ramps to I-215 NB Ramps	37,500	10,489	0.28	A	D	11,289	0.30	A	D
32		East of I-215 Freeway	25,000	13,691	0.55	A	D	15,291	0.61	B	D
33		West of Indian Street	12,500	10,599	0.85	D	D	***12,199***	***0.98***	***E***	D
34		East of Indian Street	12,500	5,741	0.46	A	D	6,041	0.48	A	D
35	Frontage Road	North of Cactus Avenue	12,500	2,539	0.20	A	D	2,539	0.20	A	D
36	Frederick Street	North of Cactus Avenue	37,500	8,722	0.23	A	D	8,722	0.23	A	D
37	Heacock Street	North of Cactus Avenue	37,500	13,470	0.36	A	D	13,870	0.37	A	D
38		Cactus Avenue to John F. Kennedy Drive	37,500	21,640	0.58	A	D	23,640	0.63	B	D
39		John F. Kennedy Drive to Gentian Avenue	37,500	16,672	0.44	A	D	18,672	0.50	A	D
40		Gentian Avenue to Iris Avenue	12,500	***14,022***	***1.12***	***F***	D	***16,022***	***1.28***	***F***	D
41		Iris Avenue to Driveway 1	25,000	2,539	0.10	A	D	4,639	0.19	A	D
42		Driveway 1 to Driveway 2	25,000	2,539	0.10	A	D	4,439	0.18	A	D
43		Driveway 2 to Krameria Avenue (EW)	25,000	2,539	0.10	A	D	4,739	0.19	A	D
44		Krameria Avenue (EW) to Driveway 3	25,000	2,539	0.10	A	D	4,239	0.17	A	D
45		South of Driveway 3	25,000	2,539	0.10	A	D	4,339	0.17	A	D
46		North of San Michele Road	12,500	3,091	0.25	A	D	4,891	0.39	A	D
47		San Michele Road to Nandina Avenue	12,500	1,546	0.12	A	D	1,646	0.13	A	D

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
				ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
48		South of Nandina Avenue	12,500	331	0.03	A	D	331	0.03	A	D
49	Concord Way	North of Iris Avenue	12,500	110	0.01	A	C	110	0.01	A	C
50	"A" Street	Driveway 11 to Driveway 12	12,500	0	0.00	A	C	0	0.00	A	C
51		Driveway 12 to Driveway 13	12,500	0	0.00	A	C	600	0.05	A	C
52		Driveway 13 to Krameria Avenue (EW)	12,500	0	0.00	A	C	1,200	0.10	A	C
53	Krameria Avenue (NS)	Krameria Avenue (EW) to Driveway 14	12,500	0	0.00	A	C	300	0.02	A	C
54		Driveway 14 to Driveway 15/Krameria Avenue-South (EW)	12,500	0	0.00	A	C	300	0.02	A	C
55	Indian Street	North of Iris Avenue	12,500	8,943	0.72	C	D	8,943	0.72	C	D
56		South of Iris Avenue	12,500	7,729	0.62	B	D	7,729	0.62	B	D
57		North of Krameria Avenue	12,500	3,975	0.32	A	D	3,975	0.32	A	D
58		South of Krameria Avenue	12,500	2,098	0.17	A	D	2,098	0.17	A	D
59		North of San Michele Road	25,000	110	0.00	A	D	110	0.00	A	D
60		San Michele Road to Nandina Avenue	12,500	3,423	0.27	A	D	5,123	0.41	A	D
61		South of Nandina Avenue	12,500	5,300	0.42	A	D	7,100	0.57	A	D
62		North of Harley Knox Boulevard	12,500	6,624	0.53	A	D	8,424	0.67	B	D
63		South of Harley Knox Boulevard	12,500	1,325	0.11	A	D	1,325	0.11	A	D

1: Figure 9-2: City of Moreno Valley Level of Service (LOS) Standards, City of Moreno Valley General Plan Circulation Element.
2: These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic), and pedestrian and bicycle traffic.
3: ***Bold and italics*** indicate unacceptable LOS.
Source: Urban Crossroads, Inc., 2011f, Table 6-2.

Table 4.11-20 Intersection Analysis for Opening Year (2016) Conditions

ID	INTERSECTION	JURISDICTION[2]	TRAFFIC CONTROL[3]	EXISTING (2011)				OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
				DELAY[1] (SECONDS)		LOS[5]		DELAY[1] (SECONDS)		LOS[5]		DELAY[1] (SECONDS)		LOS[5]	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Avenue	Caltrans, RivCo	TS	14.2	23.4	B	C	13.2	28.0	B	C	13.2	29.4	B	C
2	I-215 SB Ramps / Harley Knox Boulevard	Caltrans, RivCo	TS	26.6	27.6	C	C	28.0	29.9	C	C	32.4	41.5	C	D
3	I-215 NB Ramps / Cactus Avenue	Caltrans, MJPA	TS	12.9	4.8	B	A	16.0	5.3	B	A	16.6	5.6	B	A
4	I-215 NB Ramps / Harley Knox Boulevard	Caltrans, Perris	TS	18.1	18.1	B	B	18.4	18.5	B	B	19.1	18.9	B	B
5	Frederick Street / Cactus Avenue	MV, MJPA	TS	18.3	16.5	B	B	20.9	17.1	C	B	21.3	17.2	C	B
6	Heacock Street / Cactus Avenue	MV, MJPA	TS	40.8	32.3	D	C	46.9	34.3	D	C	48.5	36.6	D	D
7	Heacock Street / John F. Kennedy Drive	MV, MJPA	TS	30.8	34.6	C	C	32.5	35.4	C	D	32.9	35.4	C	D
8	Heacock Street / Gentian Avenue	MV, MJPA	CSS	21.8	27.8	C	D	24.9	33.2	C	D	29.8	***40.8***	D	***E***
9	Heacock Street / Iris Avenue	MV, MJPA	AWS	21.1	***42.3***	C	***F***[4]	31.1	***65.7***	D	***F***	***37.7***	***69.7***	***E***	***F***
10	Heacock Street / Driveway 1	MV, MJPA	CSS	Proposed Future Project Intersection								9.4	9.4	A	A
11	Heacock Street / Driveway 2	MV, MJPA	CSS	Proposed Future Project Intersection								10.5	10.4	B	B
12	Heacock Street / Krameria Avenue (EW)	MV, MJPA	CSS	Proposed Future Project Intersection								10.4	10.2	B	B
13	Heacock Street / Driveway 3	MV, MJPA	CSS	Proposed Future Project Intersection								10.7	10.6	B	B
14	Heacock Street / San Michele Road	MV, MJPA	TS	30.4	30.8	C	C	30.6	31.0	C	C	32.2	32.5	C	C

ID	INTERSECTION	JURISDICTION[2]	TRAFFIC CONTROL[3]	EXISTING (2011)				OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
				DELAY[1] (SECONDS)		LOS[5]		DELAY[1] (SECONDS)		LOS[5]		DELAY[1] (SECONDS)		LOS[5]	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
15	Heacock Street / Nandina Avenue	MV, MJPA	CSS	8.6	8.4	A	A	8.6	8.4	A	A	8.6	8.4	A	A
16	Driveway 4 / Iris Avenue	MV	CSS	Proposed Future Project Intersection								9.1	10.2	A	B
17	Driveway 5 / Krameria Avenue (EW)	MV	CSS	Proposed Future Project Intersection								8.7	9.1	A	A
18	Driveway 6 / Iris Avenue	MV	CSS	Proposed Future Project Intersection								23.4	17.3	C	C
19	Driveway 7 / Krameria Avenue (EW)	MV	CSS	Proposed Future Project Intersection								9.3	9.4	A	A
20	Driveway 8 / Krameria Avenue (EW)	MV	CSS	Proposed Future Project Intersection								9.2	9.3	A	A
21	Driveway 9/Concord Way / Iris Avenue	MV	CSS	15.6	9.8	C	A	16.9	10.0	C	A	16.5	10.2	C	B
22	Driveway 10 / Krameria Avenue (EW)	MV	CSS	Proposed Future Project Intersection								8.8	8.9	A	A
23	Cosmos Street / Driveway 11	MV	CSS	Proposed Future Project Intersection								7.2	8.3	A	A
24	Cosmos Street / Driveway 12	MV	CSS	Proposed Future Project Intersection								8.3	8.4	A	A
25	Cosmos Street / Driveway 13	MV	CSS	Proposed Future Project Intersection								8.4	8.6	A	A
26	Cosmos Street / Krameria Avenue (EW)	MV	CSS	Proposed Future Project Intersection								8.9	8.9	A	A
27	Krameria Avenue (NS) / Driveway 14	MV	CSS	Proposed Future Project Intersection								8.6	8.6	A	A
28	Krameria Avenue (NS) / Driveway 15	MV	CSS	Proposed Future Project Intersection								8.6	8.6	A	A
29	Indian Street / Iris Avenue	MV	TS	51.5	39.3	D	D	***63.8***	43.2	***E***	D	***64.9***	44.2	***E***	D

ID	INTERSECTION	JURISDICTION[2]	TRAFFIC CONTROL[3]	EXISTING (2011)				OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
				DELAY[1] (SECONDS)		LOS[5]		DELAY[1] (SECONDS)		LOS[5]		DELAY[1] (SECONDS)		LOS[5]	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
30	Indian Street / Krameria Avenue	MV	CSS	9.3	11.3	A	B	9.4	11.7	A	B	10.0	13.0	B	B
31	Indian Street / San Michele Road	MV	TS	28.1	20.0	C	B	28.7	20.2	C	C	27.2	20.0	C	C
32	Indian Street / Nandina Avenue	MV	TS	30.9	27.6	C	C	31.2	27.9	C	C	31.8	28.5	C	C
33	Indian Street / Harley Knox Boulevard	Perris	AWS	12.7	11.7	B	B	14.2	12.8	B	B	18.0	14.9	C	B

1: Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
2: MV = City of Moreno Valley; MJPA = March Joint Powers Authority; RivCo = Riverside County; Perris = City of Perris
3: CSS = Cross-Street Stop; AWS = All-Way Stop; TS = Traffic Signal
4: Volume-to-capacity ratio is greater than 1.00; Intersection unstable; Level of Service "F."
5: ***Bold and italics*** indicate unacceptable LOS.
Source: Urban Crossroads, Inc., 2011f, Table 6-1.

Table 4.11-21 Horizon Year (2016) Conditions Roadway Volume/Capacity (V/C) Analysis[1]

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	HORIZON YEAR (2016) WITHOUT PROJECT (E+A+C)				HORIZON YEAR (2016) WITH PROJECT (E+A+C+P)			
				ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
1	Cactus Avenue	West of I-215 Freeway	37,500	26,787	0.71	C	D	26,787	0.71	C	D
2		I-215 SB Ramps to I-215 NB On-Ramp	25,000	***33,763***	***1.35***	***F***	D	***34,563***	***1.38***	***F***	D
3		I-215 NB On-Ramp to I-215 NB Ramps/Frontage Road	37,500	***54,464***	***1.45***	***F***	D	***56,064***	***1.50***	***F***	D
4		I-215 to Elsworth Street	37,500	***49,233***	***1.31***	***F***	D	***50,833***	***1.36***	***F***	D
5		Veterans Way to Frederick Street	37,500	***53,462***	***1.43***	***F***	D	***55,162***	***1.47***	***F***	D
6		East of Frederick Street	46,900	***56,205***	***1.20***	***F***	D	***57,905***	***1.23***	***F***	D
7		West of Heacock Street	46,900	***42,662***	***0.91***	***E***	D	***44,362***	***0.95***	***E***	D
8		East of Heacock Street	37,500	26,863	0.72	C	C	26,863	0.72	C	C
9	Meyer Drive	West of Heacock Street	37,500	12,466	0.33	A	C	12,466	0.33	A	C
10	John F. Kennedy Drive	East of Heacock Street	37,500	13,758	0.37	A	C	13,758	0.37	A	C
11	Gentian Avenue	East of Heacock Street	12,500	3,887	0.31	A	D	3,887	0.31	A	D
12	Iris Avenue	Heacock Street to Driveway 4	25,000	13,182	0.53	A	D	13,482	0.54	A	D
13		Driveway 4 to Driveway 6	25,000	13,182	0.53	A	D	13,482	0.54	A	D
14		Driveway 6 to Driveway 9/Concord Way	25,000	13,182	0.53	A	D	13,582	0.54	A	D
15		East of Driveway 9/Concord Way	25,000	12,772	0.51	A	D	13,172	0.53	A	D
16		West of Indian Street	12,500	***13,524***	***1.08***	***F***	D	***13,924***	***1.11***	***F***	D
17		East of Indian Street	25,000	15,984	0.64	B	D	16,384	0.66	B	D
18	Krameria Avenue	Heacock Street to Driveway 5	12,500	3,600	0.29	A	D	6,000	0.48	A	D

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	HORIZON YEAR (2016) WITHOUT PROJECT (E+A+C)				HORIZON YEAR (2016) WITH PROJECT (E+A+C+P)			
				ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
19		Driveway 5 to Driveway 7	12,500	3,600	0.29	A	D	5,900	0.47	A	D
20		Driveway 7 to Driveway 8	12,500	3,600	0.29	A	D	5,700	0.46	A	D
21		Driveway 8 to Driveway 10	12,500	3,600	0.29	A	D	5,200	0.42	A	D
22		Driveway 10 to Cosmos Street/Krameria Avenue (NS)	12,500	3,600	0.29	A	D	5,200	0.42	A	D
23		East of Krameria Avenue (NS)	12,500	500	0.04	A	D	500	0.04	A	D
24		West of Indian Street	12,500	400	0.03	A	D	600	0.05	A	D
25		East of Indian Street	12,500	2,998	0.24	A	C	3,198	0.26	A	C
26	San Michele Road	Heacock Street to Indian Street	25,000	***22,156***	***1.77***	***F***	D	***23,856***	***1.91***	***F***	D
27		East of Indian Street	12,500	11,702	0.47	A	D	11,702	0.47	A	D
28	Nandina Avenue	Heacock Street to Indian Street	12,500	5,025	0.40	A	D	5,125	0.41	A	D
29		East of Indian Street	37,500	2,067	0.17	A	D	2,067	0.17	A	D
30	Harley Knox Boulevard	West of I-215 Freeway	37,500	16,649	0.44	A	D	16,649	0.44	A	D
31		I-215 SB Ramps to I-215 NB Ramps	25,000	28,189	0.75	C	D	28,989	0.77	C	D
32		East of I-215 Freeway	12,500	***40,391***	***1.62***	***F***	D	***41,991***	***1.68***	***F***	D
33		West of Indian Street	12,500	***34,899***	***2.79***	***F***	D	***36,499***	***2.92***	***F***	D
34		East of Indian Street	12,500	***12,141***	***0.97***	***E***	D	***12,441***	***1.00***	***E***	D
35	Frontage Road	North of Cactus Avenue	37,500	2,839	0.23	A	D	2,839	0.23	A	D
36	Frederick Street	North of Cactus Avenue	37,500	11,622	0.31	A	D	11,622	0.31	A	D
37	Heacock Street	North of Cactus Avenue	37,500	19,270	0.51	A	D	19,670	0.52	A	D
38		Cactus Avenue to John F. Kennedy Drive	37,500	30,740	0.82	D	D	32,740	0.87	D	D

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	HORIZON YEAR (2016) WITHOUT PROJECT (E+A+C)				HORIZON YEAR (2016) WITH PROJECT (E+A+C+P)			
				ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
39		John F. Kennedy Drive to Gentian Avenue	12,500	24,972	0.67	B	D	26,972	0.72	B	D
40		Gentian Avenue to Iris Avenue	25,000	***20,622***	***1.65***	***F***	D	***22,622***	***1.81***	***F***	D
41		Iris Avenue to Driveway 1	25,000	8,339	0.33	A	D	10,439	0.42	A	D
42		Driveway 1 to Driveway 2	25,000	8,339	0.33	A	D	10,239	0.41	A	D
43		Driveway 2 to Krameria Avenue (EW)	12,500	8,339	0.33	A	D	10,539	0.42	A	D
44		Krameria Avenue (EW) to Driveway 3	25,000	11,339	0.45	A	D	13,039	0.52	A	D
45		South of Driveway 3	25,000	11,339	0.45	A	D	13,139	0.53	A	D
46		North of San Michele Road	12,500	***11,691***	***0.94***	***E***	D	***13,491***	***1.08***	***F***	D
47		San Michele Road to Nandina Avenue	12,500	2,146	0.17	A	D	2,246	0.18	A	D
48		South of Nandina Avenue	12,500	331	0.03	A	D	331	0.03	A	D
49	Concord Way	North of Iris Avenue	12,500	1,610	0.13	A	C	1,610	0.13	A	C
50	"A" Street	Driveway 11 to Driveway 12	12,500	0	0.00	A	C	0	0.00	A	C
51		Driveway 12 to Driveway 13	12,500	400	0.03	A	C	1,000	0.08	A	C
52		Driveway 13 to Krameria Avenue (EW)	12,500	900	0.07	A	C	2,100	0.17	A	C
53	Krameria Avenue (NS)	Krameria Avenue (EW) to Driveway 14	12,500	2,400	0.19	A	C	2,700	0.22	A	C
54		Driveway 14 to Driveway 15/Krameria Av.-South (EW)	12,500	2,400	0.19	A	C	2,700	0.22	A	C
55	Indian Street	North of Iris Avenue	12,500	9,143	0.73	C	D	9,143	0.73	C	D
56		South of Iris Avenue	12,500	8,229	0.66	B	D	8,229	0.66	B	D
57		North of Krameria Avenue	12,500	4,475	0.36	A	D	4,475	0.36	A	D
58		South of Krameria Avenue	12,500	2,098	0.17	A	D	2,098	0.17	A	D

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	HORIZON YEAR (2016) WITHOUT PROJECT (E+A+C)				HORIZON YEAR (2016) WITH PROJECT (E+A+C+P)			
				ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
59		North of San Michele Road	25,000	110	0.00	A	D	110	0.00	A	D
60		San Michele Road to Nandina Avenue	12,500	***16,423***	***1.31***	***F***	D	***18,123***	***1.45***	***F***	D
61		South of Nandina Avenue	12,500	***21,800***	***1.74***	***F***	D	***23,600***	***1.89***	***F***	D
62		North of Harley Knox Boulevard	12,500	***23,924***	***1.91***	***F***	D	***25,724***	***2.06***	***F***	D
63		South of Harley Knox Boulevard	12,500	6,025	0.48	A	D	6,025	0.48	A	D

1: Figure 9-2: City of Moreno Valley Level of Service (LOS) Standards, City of Moreno Valley General Plan Circulation Element.
2: These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic), and pedestrian and bicycle traffic.
3: ***Bold and italics*** indicate unacceptable LOS.
Source: Urban Crossroads, Inc., 2011f, Table 7-2.

Table 4.11-22 Intersection Analysis for Horizon Year (2016) Conditions

ID	INTERSECTION	JURISDICTION[2]	TRAFFIC CONTROL[3]	EXISTING (2011)				HORIZON YEAR (2016) WITHOUT PROJECT (E+A+C)				HORIZON YEAR (2016) WITH PROJECT (E+A+C+P)			
				DELAY[1] (SECONDS)		LOS[5]		DELAY[1] (SECONDS)		LOS[5]		DELAY[1] (SECONDS)		LOS[5]	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Avenue	Caltrans, RivCo	TS	14.2	23.4	B	C	***92.7***	***172.4***	***F***	***F***	***93.1***	***173.8***	***F***	***F***
2	I-215 SB Ramps / Harley Knox Boulevard	Caltrans, RivCo	TS	26.6	27.6	C	C	***791.1***	***627.8***	***F***	***F***	***806.5***	***731.0***	***F***	***F***
3	I-215 NB Ramps / Cactus Avenue	Caltrans, MJPA	TS	***260.9***	***258.4***	***F***	***F***	***707.4***	***680.9***	***F***	***F***	***733.6***	***732.1***	***F***	***F***
4	I-215 NB Ramps / Harley Knox Boulevard	Caltrans, Perris	TS	18.1	18.1	B	B	***194.7***	***353.5***	***F***	***F***	***233.9***	***362.8***	***F***	***F***
5	Frederick Street / Cactus Avenue	MV, MJPA	TS	18.3	16.5	B	B	***97.1***	48.7	***F***	D	***99.7***	54.5	***F***	D
6	Heacock Street / Cactus Avenue	MV, MJPA	TS	40.8	32.3	D	C	***132.1***	***61.3***	***F***	***E***	***135.2***	***69.7***	***F***	***E***
7	Heacock Street / John F. Kennedy Drive	MV, MJPA	TS	30.8	34.6	C	C	40.6	46.2	D	D	41.7	49.0	D	D
8	Heacock Street / Gentian Avenue	MV, MJPA	CSS	21.8	27.8	C	D	***56.8***	***178.9***	***F***	***F***	***69.3***	***241.5***	***F***	***F***
9	Heacock Street / Iris Avenue	MV, MJPA	AWS	21.1	***42.3***	C	***F***[4]	***50.8***	***102.7***	***F***	***F***	***60.5***	***113.4***	***F***	***F***
10	Heacock Street / Driveway 1	MV, MJPA	CSS	Intersection Not Analyzed								11.5	12.5	B	B
11	Heacock Street / Driveway 2	MV, MJPA	CSS	Intersection Not Analyzed								15.1	16.8	C	C
12	Heacock Street / Krameria Avenue (EW)	MV, MJPA	CSS	Intersection Not Analyzed				17.3	28.5	C	D	25.9	***89.1***	D	***F***
13	Heacock Street / Driveway 3	MV, MJPA	CSS	Intersection Not Analyzed								20.0	22.9	C	C
14	Heacock Street / San Michele Road	MV, MJPA	TS	30.4	30.8	C	C	***103.0***	***75.7***	***F***	***E***	***145.3***	***109.4***	***F***	***F***
15	Heacock Street / Nandina Avenue	MV, MJPA	CSS	8.6	8.4	A	A	8.6	8.5	A	A	8.6	8.5	A	A
16	Driveway 4 / Iris Avenue	MV	CSS	Intersection Not Analyzed								9.4	10.4	A	B
17	Driveway 5 / Krameria Avenue (EW)	MV	CSS	Intersection Not Analyzed								9.4	10.6	A	B
18	Driveway 6 / Iris Avenue	MV	CSS	Intersection Not Analyzed								28.9	20.9	D	C

ID	INTERSECTION	JURISDICTION[2]	TRAFFIC CONTROL[3]	EXISTING (2011)				HORIZON YEAR (2016) WITHOUT PROJECT (E+A+C)				HORIZON YEAR (2016) WITH PROJECT (E+A+C+P)			
				DELAY[1] (SECONDS)		LOS[5]		DELAY[1] (SECONDS)		LOS[5]		DELAY[1] (SECONDS)		LOS[5]	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
19	Driveway 7 / Krameria Avenue (EW)	MV	CSS	Intersection Not Analyzed								10.9	11.4	B	B
20	Driveway 8 / Krameria Avenue (EW)	MV	CSS	Intersection Not Analyzed								10.8	11.2	B	B
21	Driveway 9/Concord Way / Iris Avenue	MV	CSS	15.6	9.8	C	A	23.8	28.4	C	D	23.6	20.0	C	C
22	Driveway 10 / Krameria Avenue (EW)	MV	CSS	Intersection Not Analyzed								9.8	10.4	A	B
23	Cosmos Street / Driveway 11	MV	CSS	Intersection Not Analyzed								7.2	8.3	A	A
24	Cosmos Street / Driveway 12	MV	CSS	Intersection Not Analyzed				8.5	8.5	A	A	9.0	8.9	A	A
25	Cosmos Street / Driveway 13	MV	CSS	Intersection Not Analyzed				8.7	8.8	A	A	9.5	9.5	A	A
26	Cosmos Street / Krameria Avenue (EW)	MV	CSS	Intersection Not Analyzed				10.0	11.5	B	B	10.4	12.5	B	B
27	Krameria Avenue (NS) / Driveway 14	MV	CSS	Intersection Not Analyzed								9.5	9.5	A	A
28	Krameria Avenue (NS) / Driveway 15	MV	CSS	Intersection Not Analyzed				8.9	8.7	A	A	9.2	9.2	A	A
29	Indian Street / Iris Avenue	MV	TS	51.5	39.3	D	D	53.2	45.9	D	D	54.1	47.5	D	D
30	Indian Street / Krameria Avenue	MV	CSS	9.3	11.3	A	B	10.1	14.2	B	B	10.2	14.5	B	B
31	Indian Street / San Michele Road	MV	TS	28.1	20.0	C	B	***88.0***	***208.8***	***F***	***F***	***108.1***	***248.5***	***F***	***F***
32	Indian Street / Nandina Avenue	MV	TS	30.9	27.6	C	C	***207.9***	***154.1***	***F***	***F***	***241.1***	***186.1***	***F***	***F***
33	Indian Street / Harley Knox Boulevard	Perris	AWS	12.7	11.7	B	B	***581.2***	***491.7***	***F***	***F***	***632.2***	***545.2***	***F***	***F***

1: Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
2: MV = City of Moreno Valley; MJPA = March Joint Powers Authority; RivCo = Riverside County; Perris = City of Perris
3: CSS = Cross-Street Stop; AWS = All-Way Stop; TS = Traffic Signal
4: Volume-to-capacity ratio is greater than 1.00; Intersection unstable; Level of Service "F."
5: ***Bold and italics*** indicate unacceptable LOS.
Source: Urban Crossroads, Inc., 2011f, Table 7-1.

Table 4.11-23 General Plan Buildout Conditions Roadway Volume/Capacity (V/C) Analysis[1]

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	GENERAL PLAN BUILDOUT WITHOUT PROJECT				GENERAL PLAN BUILDOUT WITH PROJECT			
				ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
12	Iris Avenue	Heacock Street to Driveway 4	37,500	13,000	0.35	A	D	14,000	0.37	A	D
13		Driveway 4 to Driveway 6	37,500	13,000	0.35	A	D	14,000	0.37	A	D
14		Driveway 6 to Driveway 9/Concord Way	37,500	13,000	0.35	A	D	14,100	0.38	A	D
15		East of Driveway 9/Concord Way	37,500	14,000	0.37	A	D	14,100	0.38	A	D
16		West of Indian Street	37,500	14,000	0.37	A	D	15,000	0.40	A	D
17		East of Indian Street	37,500	21,000	0.56	A	D	21,000	0.56	A	D
18	Krameria Avenue	Heacock Street to Driveway 5	37,500	12,000	0.32	A	D	9,000	0.72	C	D
19		Driveway 5 to Driveway 7	37,500	12,000	0.32	A	D	8,900	0.71	C	D
20		Driveway 7 to Driveway 8	37,500	12,000	0.32	A	D	8,200	0.66	B	D
21		Driveway 8 to Driveway 10	37,500	12,000	0.32	A	D	8,200	0.66	B	D
22		Driveway 10 to Cosmos Street/Krameria Avenue (NS)	37,500	12,000	0.32	A	D	8,200	0.66	B	D
23		East of Krameria Avenue (NS)	37,500	11,000	0.29	A	D	5,900	0.47	A	D
24		West of Indian Street	37,500	11,000	0.29	A	D	8,000	0.21	A	D
25		East of Indian Street	37,500	12,000	0.32	A	C	11,000	0.29	A	C
40	Heacock Street	Gentian Avenue to Iris Avenue	37,500	30,000	0.80	C	D	28,100	0.75	C	D
41		Iris Avenue to Driveway 1	37,500	24,000	0.64	B	D	21,100	0.56	A	D
42		Driveway 1 to Driveway 2	37,500	24,000	0.64	B	D	20,900	0.56	A	D
43		Driveway 2 to Krameria Avenue (EW)	37,500	24,000	0.64	B	D	21,200	0.57	A	D
44		Krameria Avenue (EW) to Driveway 3	37,500	24,000	0.64	B	D	20,700	0.55	A	D
45		South of Driveway 3	37,500	24,000	0.64	B	D	20,800	0.55	A	D
49	Concord Way	North of Iris Avenue	12,500	1,800	0.14	A	C	1,800	0.14	A	C

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	GENERAL PLAN BUILDOUT WITHOUT PROJECT				GENERAL PLAN BUILDOUT WITH PROJECT			
				ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
50	"A" Street	Driveway 11 to Driveway 12	12,500	7,000	0.56	A	C	0	0.00	A	C
51		Driveway 12 to Driveway 13	12,500	7,000	0.56	A	C	1,000	0.08	A	C
52		Driveway 13 to Krameria Avenue (EW)	12,500	7,000	0.56	A	C	2,100	0.17	A	C
53	Krameria Avenue (NS)	Krameria Avenue (EW) to Driveway 14	12,500	7,000	0.56	A	C	6,000	0.48	A	C
54		Driveway 14 to Driveway 15/Krameria Av.-South (EW)	12,500	7,000	0.56	A	C	6,000	0.48	A	C
55	Indian Street	North of Iris Avenue	37,500	***34,000***	***0.91***	***E***	D	***34,000***	***0.91***	***E***	D
56		South of Iris Avenue	37,500	27,000	0.72	C	D	28,000	0.75	C	D
57		North of Krameria Avenue	37,500	27,000	0.72	C	D	28,000	0.75	C	D
58		South of Krameria Avenue	37,500	18,000	0.48	A	D	17,000	0.45	A	D

1: Figure 9-2: City of Moreno Valley Level of Service (LOS) Standards, City of Moreno Valley General Plan Circulation Element.
2: These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic), and pedestrian and bicycle traffic.
3: ***Bold and italics*** indicate unacceptable LOS.
Source: Urban Crossroads, Inc., 2011f, Table 8-4.

Table 4.11-24 Intersection Analysis Summary for General Plan Buildout Conditions

ID	INTERSECTION	JURISDICTION[2]	TRAFFIC CONTROL[3]	GENERAL PLAN BUILDOUT (WITHOUT PROJECT)				GENERAL PLAN BUILDOUT (WITH PROJECT)				CHANGE IN DELAY (SECONDS)	
				DELAY[1] (SECONDS)		LOS		DELAY[1] (SECONDS)		LOS			
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
9	Heacock Street / Iris Avenue	MV, MJPA	TS	27.5	26.4	C	C	27.8	30.2	C	C	0.3	3.8
10	Heacock Street / Driveway 1	MV, MJPA						14.1	17.6	B	C	--	--
11	Heacock Street / Driveway 2	MV, MJPA						20.4	27.1	C	D	--	--
12	Heacock Street / Krameria Avenue (EW)	MV, MJPA	TS	17.9	17.4	B	B	12.6	14.4	B	B	-5.3	-3.0
13	Heacock Street / Driveway 3	MV, MJPA						28.7	33.7	D	D	--	--
16	Driveway 4 / Iris Avenue	MV						10.0	11.4	A	B	--	--
17	Driveway 5 / Krameria Avenue (EW)	MV						9.5	10.8	A	B	--	--
18	Driveway 6 / Iris Avenue	MV						16.0	22.1	C	C	--	--
19	Driveway 7 / Krameria Avenue (EW)	MV						11.1	11.6	B	B	--	--
20	Driveway 8 / Krameria Avenue (EW)	MV						11.0	11.4	B	B	--	--
21	Driveway 9/Concord Way / Iris Avenue	MV	CSS	23.1	19.9	C	C	33.4	31.1	D	D	10.3	11.2
22	Driveway 10 / Krameria Avenue (EW)	MV						9.9	10.8	A	B	--	--
23	Cosmos Street / Driveway 11	MV						7.2	8.3	A	A	--	--
24	Cosmos Street / Driveway 12	MV						8.9	8.9	A	A	--	--
25	Cosmos Street / Driveway 13	MV						9.5	9.5	A	A	--	--
26	Cosmos Street / Krameria Avenue (EW)	MV						10.8	12.7	B	B	--	--
27	Krameria Avenue (NS) / Driveway 14	MV						9.7	9.7	A	A	--	--
28	Krameria Avenue (NS) / Driveway 15	MV	CSS	25.4	22.8	D	C	9.1	9.0	A	A	-16.3	-13.8
29	Indian Street / Iris Avenue	MV	TS	51.7	40.4	D	D	51.4	37.9	D	D	-0.3	-2.5
30	Indian Street / Krameria Avenue	MV	TS	29.5	38.2	C	D	30.5	38.6	C	D	1.0	0.4

1: Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
2: MV = City of Moreno Valley; MJPA = March Joint Powers Authority
3: CSS = Cross-Street Stop; TS = Traffic Signal
Source: Urban Crossroads, Inc., 2011f, Table 8-3.

Table 4.11-25 Existing Plus Project (E+P) Conditions Basic Freeway Segment Analysis

I-215 FREEWAY MAINLINE SEGMENT	VOLUME		LANES[1]	DENSITY[2]		LOS	
	AM	PM		AM	PM	AM	PM
Southbound:							
N of Cactus	3,453	5,176	4	14.9	22.0	B	C
S of Cactus	3,301	5,252	3	18.9	30.9	C	D
N of Harley Knox	2,946	4,277	3	16.8	24.4	B	C
S of Harley Knox	2,747	3,935	3	15.7	22.6	B	C
Northbound:							
N of Cactus	4,722	4,391	4	19.9	18.7	C	C
S of Cactus	5,130	3,995	3	29.7	22.6	D	C
N of Harley Knox	3,369	2,681	3	19.2	15.2	C	B
S of Harley Knox	3,227	2,398	3	18.5	13.7	C	B

1: Number of lanes in the specified direction; based on existing conditions.
2: Density is measured by passenger cars per mile per lane (pc/mi/ln).
Source: Urban Crossroads, Inc., 2011f, Table 5-4.

Table 4.11-26 Existing Plus Project (E+P) Conditions Stacking Length Summary at I-215/ Cactus Avenue and I-215/Harley Knox Boulevard

FREEWAY RAMP INTERSECTION LOCATION / MOVEMENT	STACKING DISTANCE (FEET)	95TH PERCENTILE STACKING DISTANCE REQUIRED (FEET)		ACCEPTABLE?[1]	
		AM	PM	AM	PM
I-215 SB Ramps / Cactus Avenue:					
Southbound Right Turn Lane	1,115	15	0	Yes	Yes
Eastbound Through Lane	675	65	118	Yes	Yes
Eastbound Right Turn Lane	675	22	42	Yes	Yes
Westbound Left Turn Lane	1,022	355[3]	255	Yes	Yes
Westbound Through Lane	1,182	6[3]	1[3]	Yes	Yes
I-215 NB Ramps / Cactus Avenue:					
Northbound Left Turn Lane	145	145	30	Yes	Yes
Northbound Through Lane	1,650	64	21	Yes	Yes
Southbound Left Turn Lane	115	13	42	Yes	Yes
Southbound Right Turn Lane	560	20	22	Yes	Yes
Eastbound Left Turn Lane	190	17	11	Yes	Yes
Eastbound Through Lane	1,182	123	93	Yes	Yes
Westbound Through Lane	1,120	475[2]	257	Yes	Yes
I-215 SB Ramps / Harley Knox Boulevard:					
Southbound Through Lane	1,109	300[2]	298[2]	Yes	Yes
Southbound Right Turn Lane	265	34	53	Yes	Yes
Eastbound Through Lane	836	84	63	Yes	Yes
Eastbound Right Turn Lane	836	17	8	Yes	Yes
Westbound Left Turn Lane	95	***179[2]***	***227[2]***	***No***	***No***
Westbound Through Lane	280	30	19	Yes	Yes
I-215 NB Ramps / Harley Knox Boulevard					
Northbound Through Lane	929	50	15	Yes	Yes
Northbound Right Turn Lane	215	56	46	Yes	Yes
Eastbound Left Turn Lane	75	***154***	***155***	***No***	***No***
Eastbound Through Lane	280	89	81	Yes	Yes
Westbound Through Lane	594	97	102	Yes	Yes
Westbound Right Turn Lane	594	45	49	Yes	Yes

1: Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable. ***Bold and italics*** indicate unacceptable stacking distance.
2: 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
3: Volume for 95th percentile queue is metered by upstream signal.
Source: Urban Crossroads, Inc., 2011f, Table 5-3.

Table 4.11-27 Existing Plus Project (E+P) I-215 Freeway Ramp Junction Merge/Diverge Analysis

I-215 RAMP	LANES ON FREEWAY	AM PEAK HOUR		PM PEAK HOUR	
		DENSITY[2]	LOS	DENSITY[2]	LOS
Southbound:					
Off-Ramp at Cactus Avenue	4	16.0	B	22.3	C
Loop Off-Ramp at Cactus Avenue - Upstream	4	17.9	B	25.1	C
Loop Off-Ramp at Cactus Avenue - Downstream	4	17.9	B	25.1	C
On-Ramp at Cactus Avenue	3	19.1	B	29.6	D
Off-Ramp at Harley Knox Boulevard	3	22.3	C	29.5	D
On-Ramp at Harley Knox Boulevard	3	18.4	B	24.6	C
Northbound:					
On-Ramp at Cactus Avenue	3	29.5	D	28.9	D
Loop On-Ramp at Cactus Avenue - Downstream	3	24.6	C	21.6	C
Loop On-Ramp at Cactus Avenue - Upstream	3	24.6	C	21.6	C
Off-Ramp at Cactus Avenue	3	32.5	D	26.4	C
On-Ramp at Harley Knox Boulevard.	2	21.8	C	18.4	B
Off-Ramp at Harley Knox Boulevard	2	23.0	C	17.9	B

1: Merge/Diverge analysis has been conducted twice where nearby ramps exist both upstream and downstream.
2: Density is measured by passenger cars per mile per lane (pc/mi/ln).
Source: Urban Crossroads, Inc., 2011f, Table 5-5.

Table 4.11-28 Opening Year (2016) Conditions Basic Freeway Segment Analysis

I-215 FREEWAY MAINLINE SEGMENT	LANES[1]	OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)				PROJECT-RELATED IMPACT?	
		DENSITY[2]		LOS		DENSITY[2]		LOS			
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Southbound:											
N of Cactus	4	16.0	15.6	B	B	16.5	24.3	B	C	No	No
S of Cactus	3	20.8	36.2	C	E	20.8	36.3	C	E	No	No
N of Harley Knox	3	18.4	27.1	C	D	18.6	27.1	C	D	No	No
S of Harley Knox	3	17.1	24.2	B	C	17.3	24.8	B	C	No	No
Northbound:											
N of Cactus	4	21.9	20.1	C	C	22.0	20.6	C	C	No	No
S of Cactus	3	34.4	25.0	D	C	34.5	25.0	D	C	No	No
N of Harley Knox	3	21.1	16.7	C	B	21.1	16.8	C	B	No	No
S of Harley Knox	3	19.8	14.9	C	B	20.4	15.1	C	B	No	No

1: Number of lanes in the specified direction; based on existing conditions.
2: Density is measured by passenger cars per mile per lane (pc/mi/ln).
Source: Urban Crossroads, Inc., 2011f, Table 6-4.

Table 4.11-29 Opening Year (2016) Conditions Stacking Length Summary at I-215/ Cactus Avenue and I-215/Harley Knox Boulevard

FREEWAY RAMP INTERSECTION LOCATION / MOVEMENT	STACKING DISTANCE (FEET)	OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
		95TH PERCENTILE STACKING DISTANCE REQUIRED (FEET)		ACCEPTABLE?[1]		95TH PERCENTILE STACKING DISTANCE REQUIRED (FEET)		ACCEPTABLE?[1]	
		AM	PM	AM	PM	AM	PM	AM	PM
I-215 SB Ramps / Cactus Avenue:									
Southbound Right Turn Lane	1,115	33	0	Yes	Yes	33	0	Yes	Yes
Eastbound Through Lane	675	82	120	Yes	Yes	82	120	Yes	Yes
Eastbound Right Turn Lane	675	28	40	Yes	Yes	28	40	Yes	Yes
Westbound Left Turn Lane	1,022	432	774[2]	Yes	Yes	434	790[2]	Yes	Yes
Westbound Through Lane	1,182	60	7	Yes	Yes	60	7	Yes	Yes
I-215 NB Ramps / Cactus Avenue:									
Northbound Left Turn Lane	145	***160***	31	***No***	Yes	***160***	31	***No***	Yes
Northbound Through Lane	1,650	146	24	Yes	Yes	71	24	Yes	Yes
Southbound Left Turn Lane	115	32	45	Yes	Yes	14	45	Yes	Yes
Southbound Right Turn Lane	560	0	25	Yes	Yes	24	26	Yes	Yes
Eastbound Left Turn Lane	190	31	15	Yes	Yes	18	17	Yes	Yes
Eastbound Through Lane	1,182	378	102	Yes	Yes	133	106	Yes	Yes
Westbound Through Lane	1,120	538[2]	276	Yes	Yes	554[2]	310	Yes	Yes
I-215 SB Ramps / Harley Knox Boulevard:									
Southbound Through Lane	1,109	330[2]	337[2]	Yes	Yes	341	342[2]	Yes	Yes
Southbound Right Turn Lane	265	36	56	Yes	Yes	36	56	Yes	Yes
Eastbound Through Lane	836	92	68	Yes	Yes	92	68	Yes	Yes
Eastbound Right Turn Lane	836	18	9	Yes	Yes	18	9	Yes	Yes
Westbound Left Turn Lane	95	***139***[2]	***108***	***No***	***No***	***195***[2]	***239***[2]	***No***	***No***
Westbound Through Lane	280	33	21	Yes	Yes	33	21	Yes	Yes

FREEWAY RAMP INTERSECTION LOCATION / MOVEMENT	STACKING DISTANCE (FEET)	OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
		95TH PERCENTILE STACKING DISTANCE REQUIRED (FEET)		ACCEPTABLE?[1]		95TH PERCENTILE STACKING DISTANCE REQUIRED (FEET)		ACCEPTABLE?[1]	
		AM	PM	AM	PM	AM	PM	AM	PM
I-215 NB Ramps / Harley Knox Boulevard:									
Northbound Through Lane	929	54	17	Yes	Yes	54	17	Yes	Yes
Northbound Right Turn Lane	215	46	43	Yes	Yes	58	47	Yes	Yes
Eastbound Left Turn Lane	75	***167***	***166***	***No***	***No***	***167***	***166***	***No***	***No***
Eastbound Through Lane	280	97	90	Yes	Yes	98	90	Yes	Yes
Westbound Through Lane	594	98	82	Yes	Yes	108	111	Yes	Yes
Westbound Right Turn Lane	594	48	51	Yes	Yes	48	51	Yes	Yes

1: Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable. ***Bold and italics*** indicate unacceptable stacking distance.
2: 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
3: Volume for 95th percentile queue is metered by upstream signal.
Source: Urban Crossroads, Inc., 2011f, Table 6-3.

Table 4.11-30 Opening Year (2016) I-215 Freeway Ramp Junction Merge/Diverge Analysis

I-215 RAMP	LANES ON FREEWAY	OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
		AM PEAK HOUR		PM PEAK HOUR		AM PEAK HOUR		PM PEAK HOUR	
		DENSITY[2]	LOS	DENSITY[2]	LOS	DENSITY[2]	LOS	DENSITY[2]	LOS
Southbound:									
Off-Ramp at Cactus Avenue	4	17.1	B	24.4	C	17.6	B	24.6	C
Loop Off-Ramp at Cactus Avenue - Upstream	4	18.3	B	27.0	C	19.4	B	27.5	C
Loop Off-Ramp at Cactus Avenue - Downstream	4	18.3	B	27.0	C	19.4	B	27.5	C
On-Ramp at Cactus Avenue	3	21.0	C	32.2	D	21.0	C	32.3	D
Off-Ramp at Harley Knox Boulevard	3	23.9	C	31.7	D	24.1	C	31.7	D
On-Ramp at Harley Knox Boulevard	3	19.6	B	25.8	C	19.9	B	26.7	C
Northbound:									
On-Ramp at Cactus Avenue	3	31.7	D	30.5	D	32.1	D	31.4	D
Loop On-Ramp at Cactus Avenue - Downstream	3	26.8	C	23.5	C	26.8	C	23.5	C
Loop On-Ramp at Cactus Avenue - Upstream	3	26.8	C	23.5	C	26.8	C	23.5	C
Off-Ramp at Cactus Avenue	3	34.9	D	28.5	D	34.9	D	28.5	D
On-Ramp at Harley Knox Boulevard.	2	23.7	C	19.9	B	23.7	C	20.0	B
Off-Ramp at Harley Knox Boulevard	2	24.0	C	19.1	B	24.8	C	19.4	B

1: Merge/Diverge analysis has been conducted twice where nearby ramps exist both upstream and downstream.
2: Density is measured by passenger cars per mile per lane (pc/mi/ln).
Source: Urban Crossroads, Inc., 2011f, Table 6-5.

Table 4.11-31 Horizon Year (2016) Conditions Basic Freeway Segment Analysis

I-215 FREEWAY MAINLINE SEGMENT	LANES[1]	HORIZON YEAR (2016) WITHOUT PROJECT (E+A+C)				HORIZON YEAR (2016) WITH PROJECT (E+A+C+P)			
		DENSITY[2]		LOS[3]		DENSITY[2]		LOS[3]	
		AM	PM	AM	PM	AM	PM	AM	PM
Southbound:									
North of Cactus	4	26.3	30.4	D	D	26.8	30.8	D	D
South of Cactus	3	31.7	--	D	***F***	31.7	--	D	***F***
North of Harley Knox	3	35.0	--	D	***F***	35.1	--	E	***F***
South of Harley Knox	3	23.7	--	C	***F***	24.0	--	C	***F***
Northbound:									
North of Cactus	4	26.7	32.9	D	D	27.1	33.8	D	D
South of Cactus	3	--	--	***F***	***F***	--	--	***F***	***F***
North of Harley Knox	3	40.3	35.0	E	D	40.4	35.1	E	E
South of Harley Knox	3	43.5	22.6	E	C	44.8	22.9	E	C

1: Number of lanes in the specified direction; based on existing conditions.
2: Density is measured by passenger cars per mile per lane (pc/mi/ln).
3: ***Bold and italics*** indicate unacceptable LOS.
Source: Urban Crossroads, Inc., 2011f, Table 7-4.

Table 4.11-32 Horizon Year (2016) Conditions Stacking Length Summary at I-215/Cactus Avenue and I-215/Harley Knox Boulevard

FREEWAY RAMP INTERSECTION LOCATION / MOVEMENT	STACKING DISTANCE (FEET)	HORIZON YEAR (2016) WITHOUT PROJECT (E+A+C)				HORIZON YEAR (2016) WITH PROJECT (E+A+C+P)			
		95TH PERCENTILE STACKING DISTANCE REQUIRED (FEET)		ACCEPTABLE?[1]		95TH PERCENTILE STACKING DISTANCE REQUIRED (FEET)		ACCEPTABLE?[1]	
		AM	PM	AM	PM	AM	PM	AM	PM
I-215 SB Ramps / Cactus Avenue:									
Southbound Right Turn Lane	1,115	440	0	Yes	Yes	440	0	Yes	Yes
Eastbound Through Lane	675	180	***912***[2]	Yes	***No***	180	***912***[2]	Yes	***No***
Eastbound Right Turn Lane	675	48	538[2]	Yes	Yes	48	538[2]	Yes	Yes
Westbound Left Turn Lane	1,022	936[2]	***1,467***[2]	Yes	***No***	939[2]	***1,478***[2]	Yes	**No**
Westbound Through Lane	1,182	1,107	27[2]	Yes	Yes	1,107[2]	27	Yes	Yes
I-215 NB Ramps / Cactus Avenue:									
Northbound Left Turn Lane	515	***873***[2]	120	***No***	Yes	***873***[2]	120	***No***	Yes
Northbound Through Lane	1,650	112	58	Yes	Yes	112	58	Yes	Yes
Southbound Left Turn Lane	165	18	46	Yes	Yes	18	46	Yes	Yes
Southbound Right Turn Lane	560	37	45	Yes	Yes	37	45	Yes	Yes
Eastbound Left Turn Lane	190	29	43[2]	Yes	Yes	29	43[2]	Yes	Yes
Eastbound Through Lane	1,182	217	809[2]	Yes	Yes	250	827[2]	Yes	Yes
Westbound Through Lane	1,120	1064[2]	965[2]	Yes	Yes	1,083[2]	1,018[2]	Yes	Yes
I-215 SB Ramps / Harley Knox Boulevard:									
Southbound Through Lane	1,109	***1,525***[2]	863[2]	***No***	Yes	***1,533***[2]	868[2]	***No***	Yes
Southbound Right Turn Lane	265	275[2]	115	***No***	Yes	279[2]	116	***No***	Yes
Eastbound Through Lane	836	124	157	Yes	Yes	124	157	Yes	Yes
Eastbound Right Turn Lane	836	30	38	Yes	Yes	30	38	Yes	Yes
Westbound Left Turn Lane	280	***432***[2]	***926***[2]	***No***	***No***	***473***[2]	***1,018***[2]	***No***	***No***
Westbound Through Lane	280	62	33	Yes	Yes	62	33	Yes	Yes

FREEWAY RAMP INTERSECTION LOCATION / MOVEMENT	STACKING DISTANCE (FEET)	HORIZON YEAR (2016) WITHOUT PROJECT (E+A+C)				HORIZON YEAR (2016) WITH PROJECT (E+A+C+P)			
		95TH PERCENTILE STACKING DISTANCE REQUIRED (FEET)		ACCEPTABLE?[1]		95TH PERCENTILE STACKING DISTANCE REQUIRED (FEET)		ACCEPTABLE?[1]	
		AM	PM	AM	PM	AM	PM	AM	PM
I-215 NB Ramps / Harley Knox Boulevard:									
Northbound Through Lane	929	246[2]	85	Yes	Yes	246[2]	85	Yes	Yes
Northbound Right Turn Lane	515	***996***[2]	314[2]	***No***	Yes	***1,099***[2]	369[2]	***No***	Yes
Eastbound Left Turn Lane	280	***331***[2]	***615***[2]	***No***	***No***	***331***[2]	***615***[2]	***No***	***No***
Eastbound Through Lane	280	***662***[2]	202	***No***	Yes	666[2]	203	***No***	Yes
Westbound Through Lane	594	181	441[2]	Yes	Yes	195	504[2]	Yes	Yes
Westbound Right Turn Lane	594	130	***1,358***[2]	Yes	***No***	131	1,368[2]	Yes	***No***

1: Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable. ***Bold and italics*** indicate unacceptable stacking distance.
2: 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
3: Volume for 95th percentile queue is metered by upstream signal.
Source: Urban Crossroads, Inc., 2011f, Table 7-3.

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Table 4.11-33 Horizon Year (2016) I-215 Freeway Ramp Junction Merge/Diverge Analysis

I-215 RAMP	LANES ON FREEWAY	OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
		AM PEAK HOUR		PM PEAK HOUR		AM PEAK HOUR		PM PEAK HOUR	
		DENSITY[2]	LOS[3]	DENSITY[2]	LOS[3]	DENSITY[2]	LOS[3]	DENSITY[2]	LOS[3]
Southbound:									
Off-Ramp at Cactus Avenue	4	29.1	D	30.1	D	29.6	D	30.3	D
Loop Off-Ramp at Cactus Avenue - Upstream	4	26.6	C	24.7	C	27.8	C	25.3	C
Loop Off-Ramp at Cactus Avenue - Downstream	4	26.6	C	25.1	C	27.8	C	25.3	C
On-Ramp at Cactus Avenue	3	32.1	D	***47.2***	***F***	32.1	D	***47.3***	***F***
Off-Ramp at Harley Knox Boulevard	3	***38.9***	***F***	***48.6***	***F***	***38.9***	***F***	***48.6***	***F***
On-Ramp at Harley Knox Boulevard	3	26.5	C	***43.8***	***F***	26.8	C	***44.6***	***F***
Northbound:									
On-Ramp at Cactus Avenue	3	37.5	E	***45.2***	***F***	37.9	E	***46.2***	***F***
Loop On-Ramp at Cactus Avenue - Downstream	3	32.2	D	36.6	E	32.2	D	36.6	E
Loop On-Ramp at Cactus Avenue - Upstream	3	31.6	D	36.2	E	31.6	D	36.2	E
Off-Ramp at Cactus Avenue	3	***50.5***	***F***	***42.1***	***F***	***50.9***	***F***	***42.1***	***F***
On-Ramp at Harley Knox Boulevard.	2	37.1	E	38.7	E	37.2	E	38.8	E
Off-Ramp at Harley Knox Boulevard	2	38.4	E	27.2	C	39.0	E	27.5	C

1: Merge/Diverge analysis has been conducted twice where nearby ramps exist both upstream and downstream.
2: Density is measured by passenger cars per mile per lane (pc/mi/ln).
3: ***Bold and italics*** indicate unacceptable LOS.
Source: Urban Crossroads, Inc., 2011f, Table 7-5.

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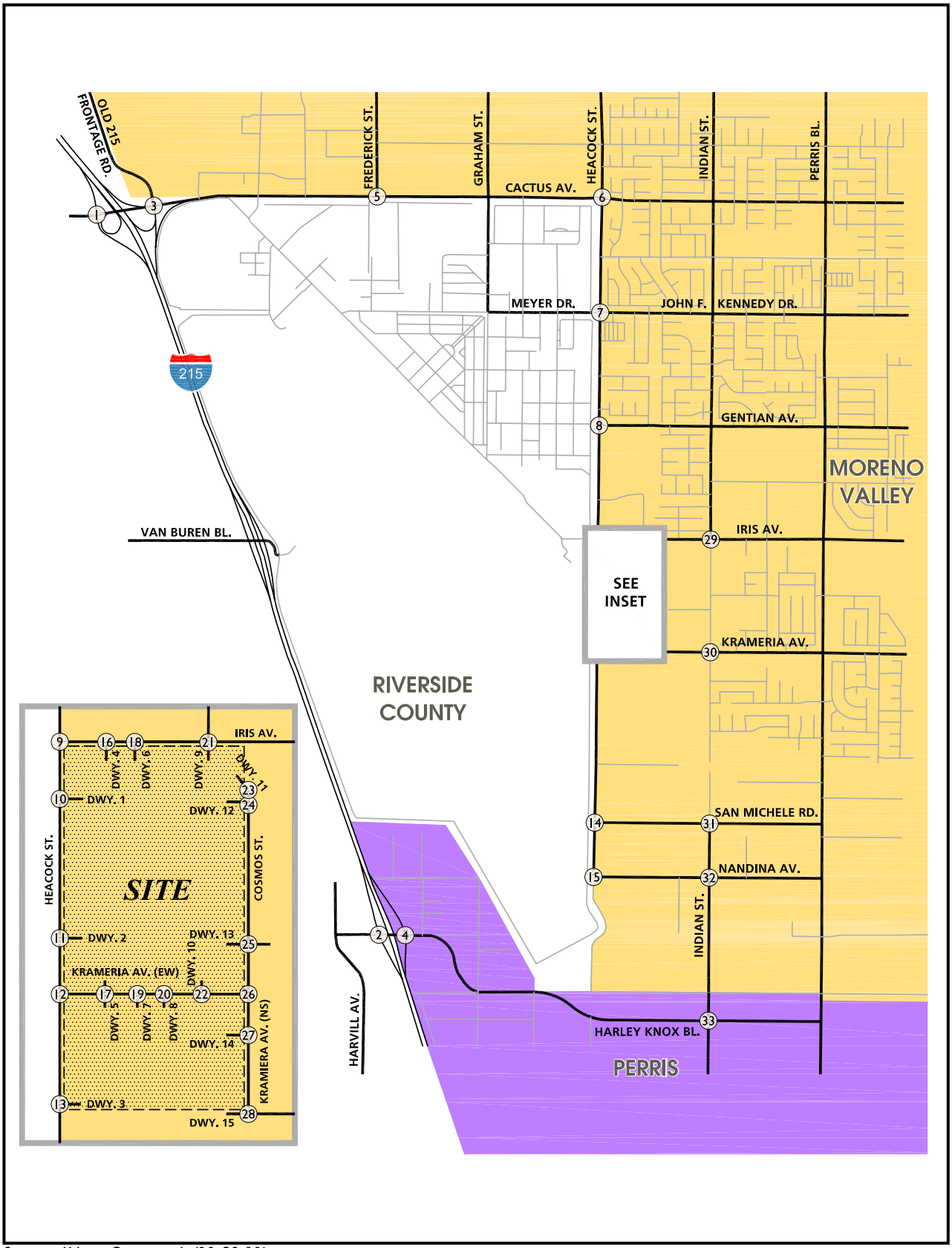
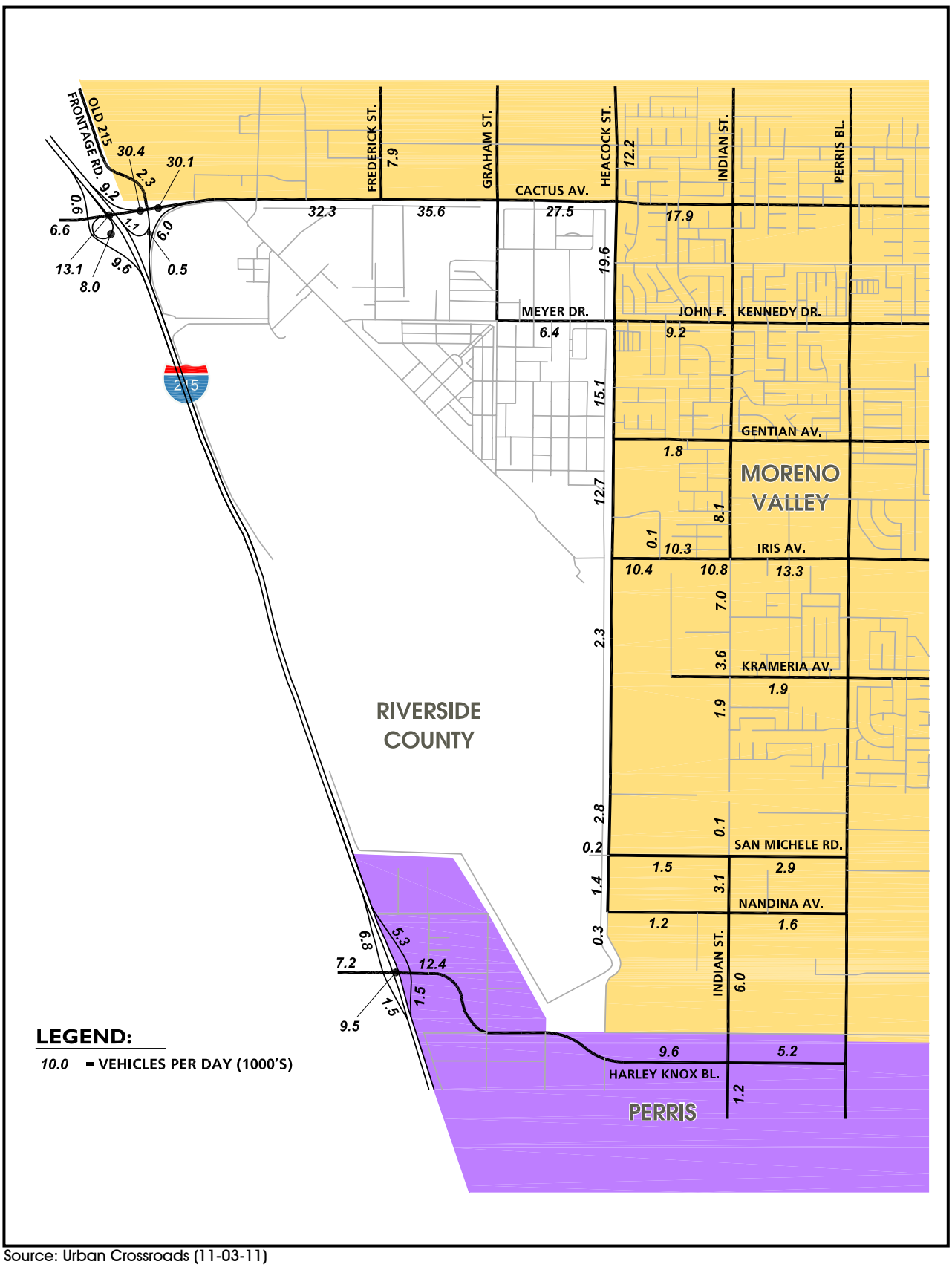


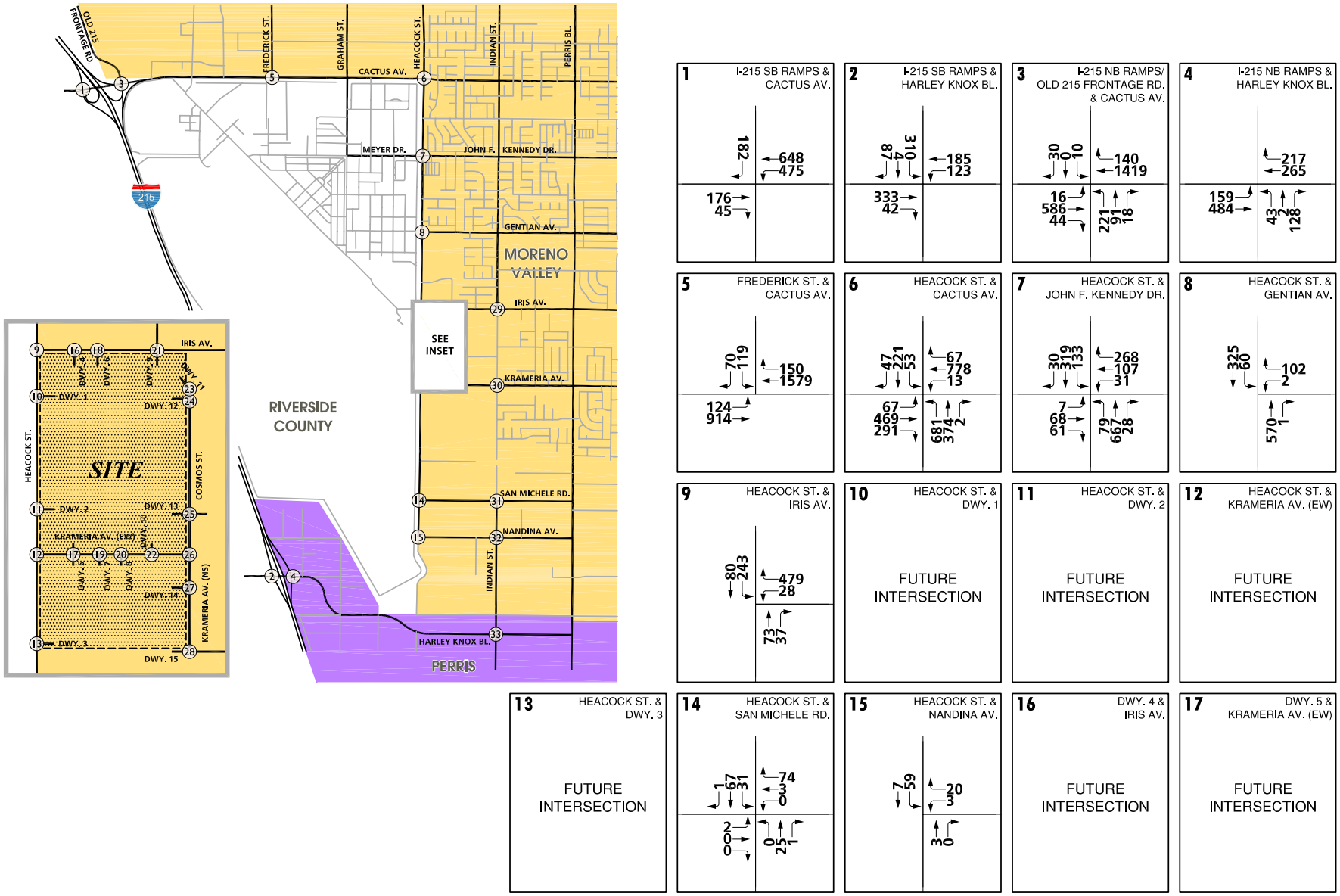
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-1
Project Study Area - Intersection Locations



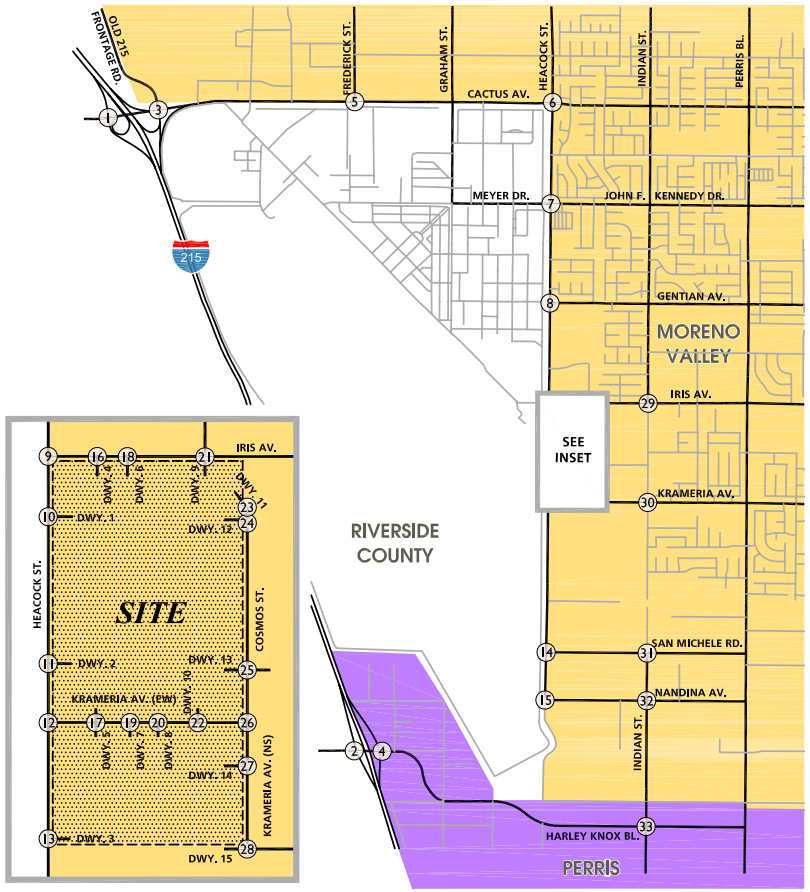
Source: Urban Crossroads (11-03-11)

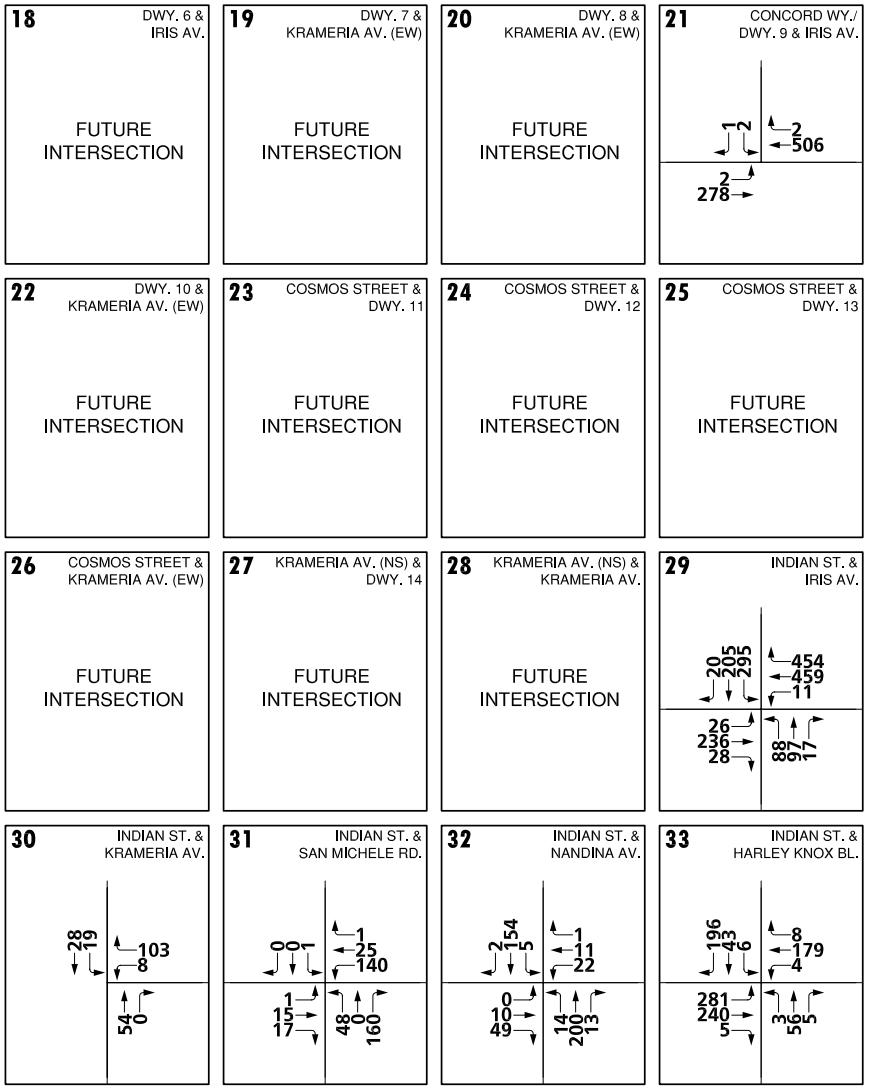
FIGURE 4.11-2
Existing (2011) Average Daily Traffic (ADT)



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-3A
Existing (2011) AM Peak Hour Intersection Volumes (1 of 2)



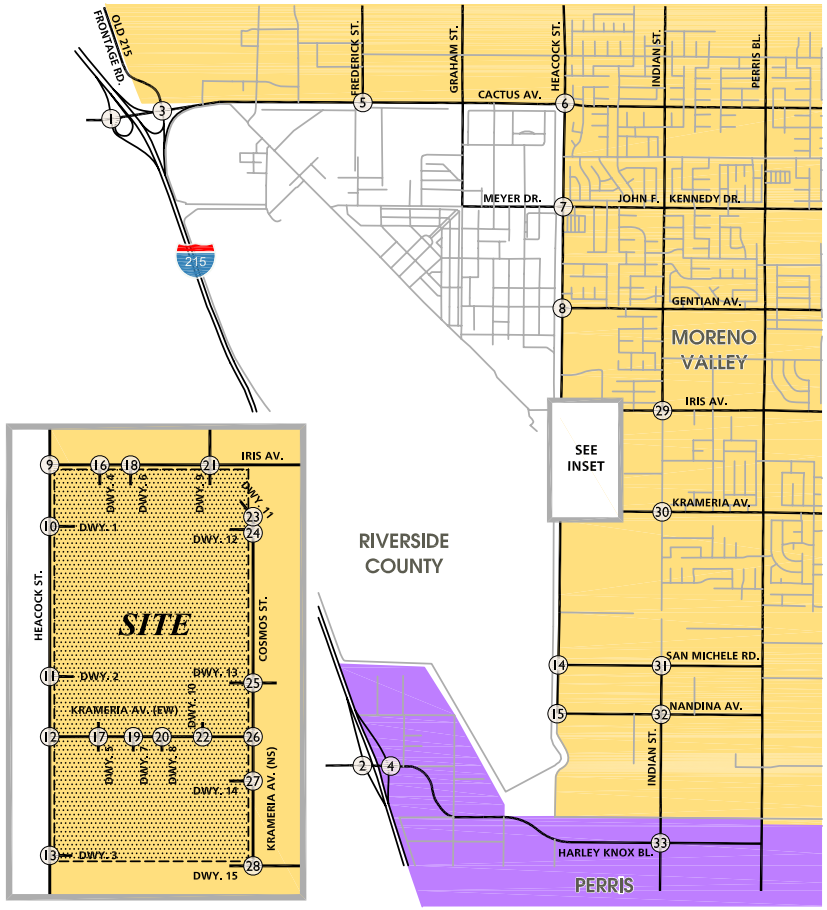


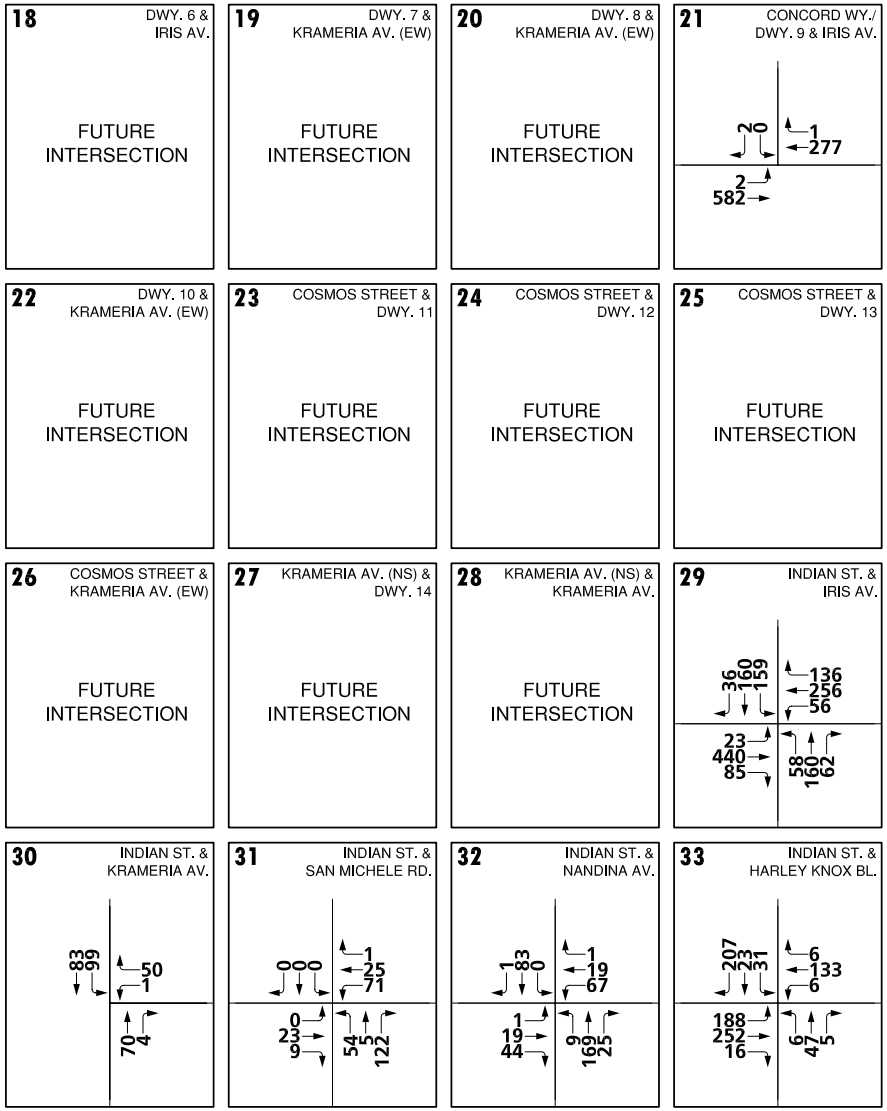
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-3B
Existing (2011) AM Peak Hour Intersection Volumes (2 of 2)

Source: Urban Crossroads (11-03-11)

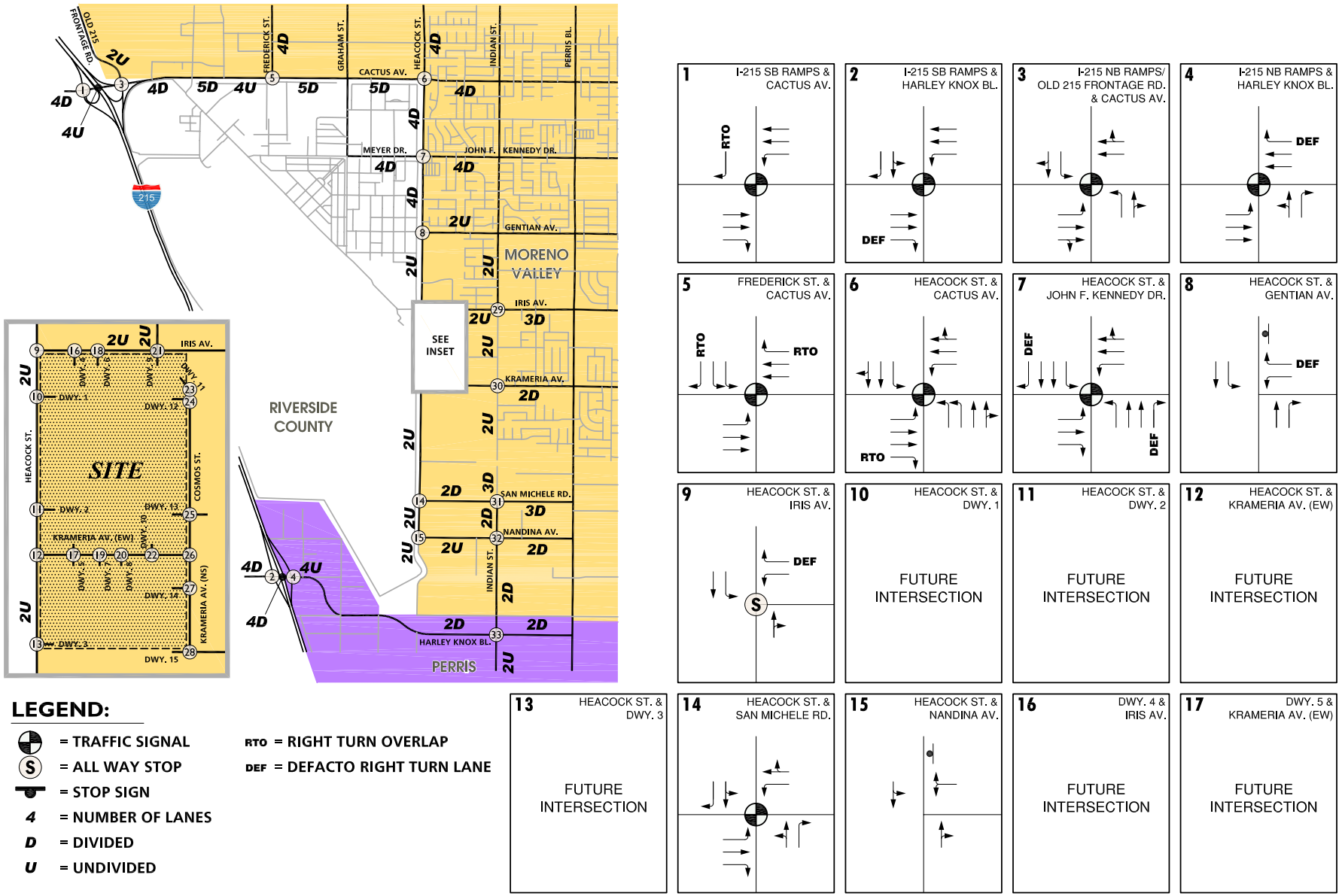
FIGURE 4.11-4A
Existing (2011) PM Peak Hour Intersection Volumes (1 of 2)





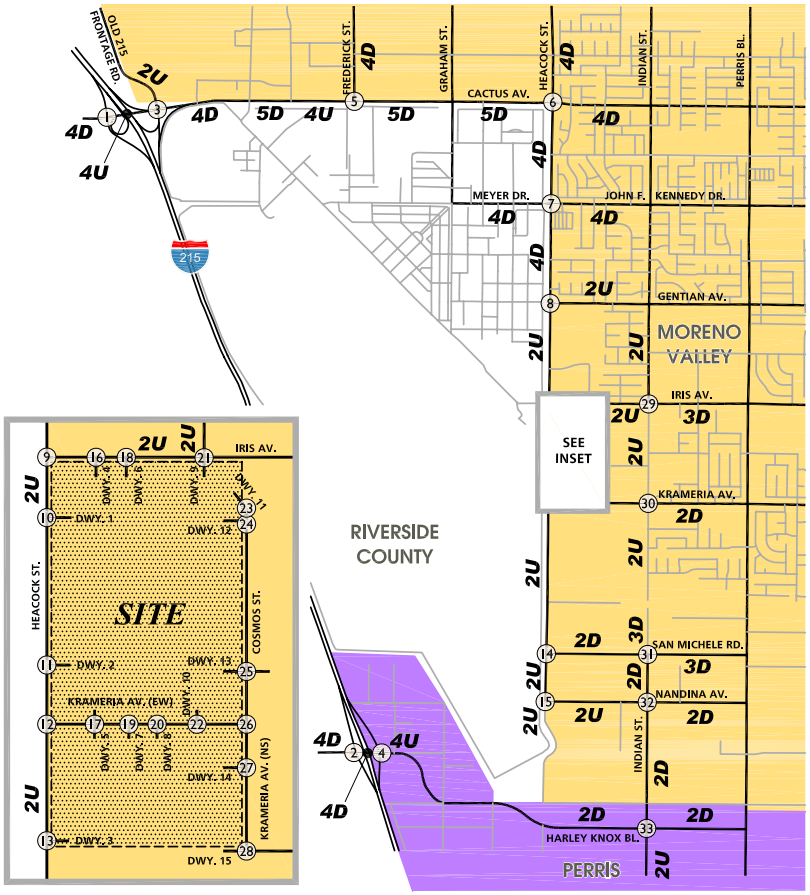
Source: Urban Crossroads (09-08-11)

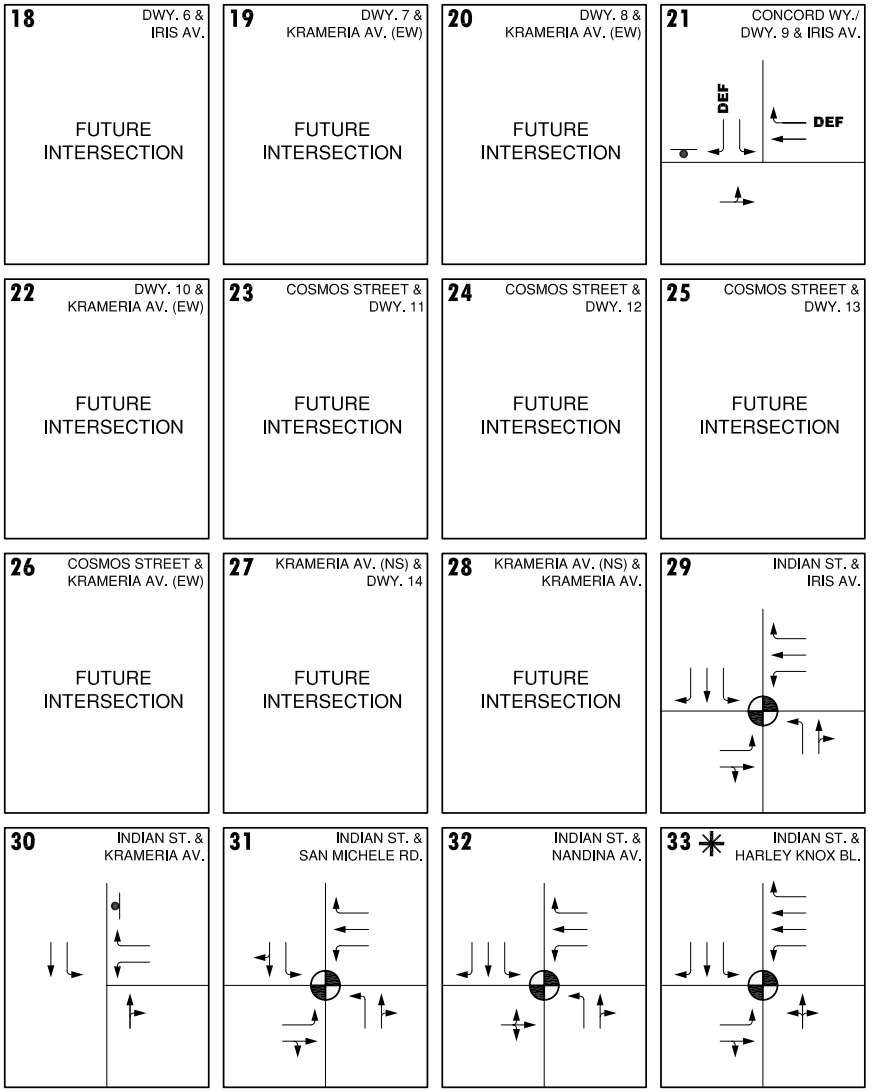
FIGURE 4.11-4B
Existing (2011) PM Peak Hour Intersection Volumes (2 of 2)



Source: Urban Crossroads (09-08-11)

FIGURE 4.11-5A
Existing (2011) Number of Through Lanes and Intersection Controls (1 of 2)





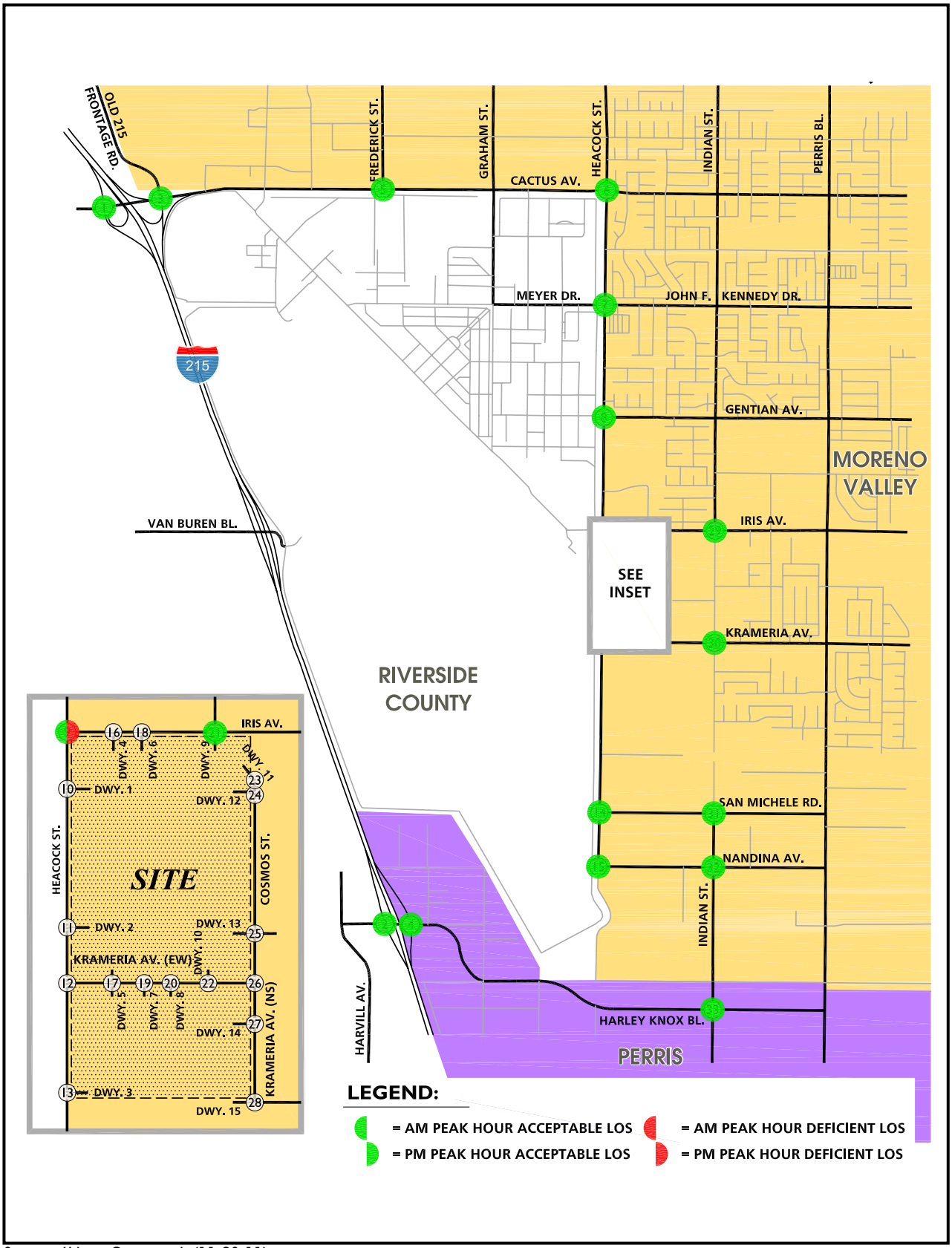
LEGEND:

- = TRAFFIC SIGNAL
- S = ALL WAY STOP
- = STOP SIGN
- *4* = NUMBER OF LANES
- *D* = DIVIDED
- *U* = UNDIVIDED
- DEF = DEFACTO RIGHT TURN LANE

✳ NOTE: SIGNAL IS INSTALLED BUT IS NOT FULLY OPERATIONAL WITH CONSTRUCTION ON THE WEST AND SOUTH LEGS OF THE INTERSECTION. THE SIGNAL HEADS ARE CURRENTLY FLASHING RED. AS SUCH, THE INTERSECTION HAS BEEN TREATED AS AN ALL-WAY STOP CONTROLLED INTERSECTION UNDER EXISTING 2011 CONDITIONS.

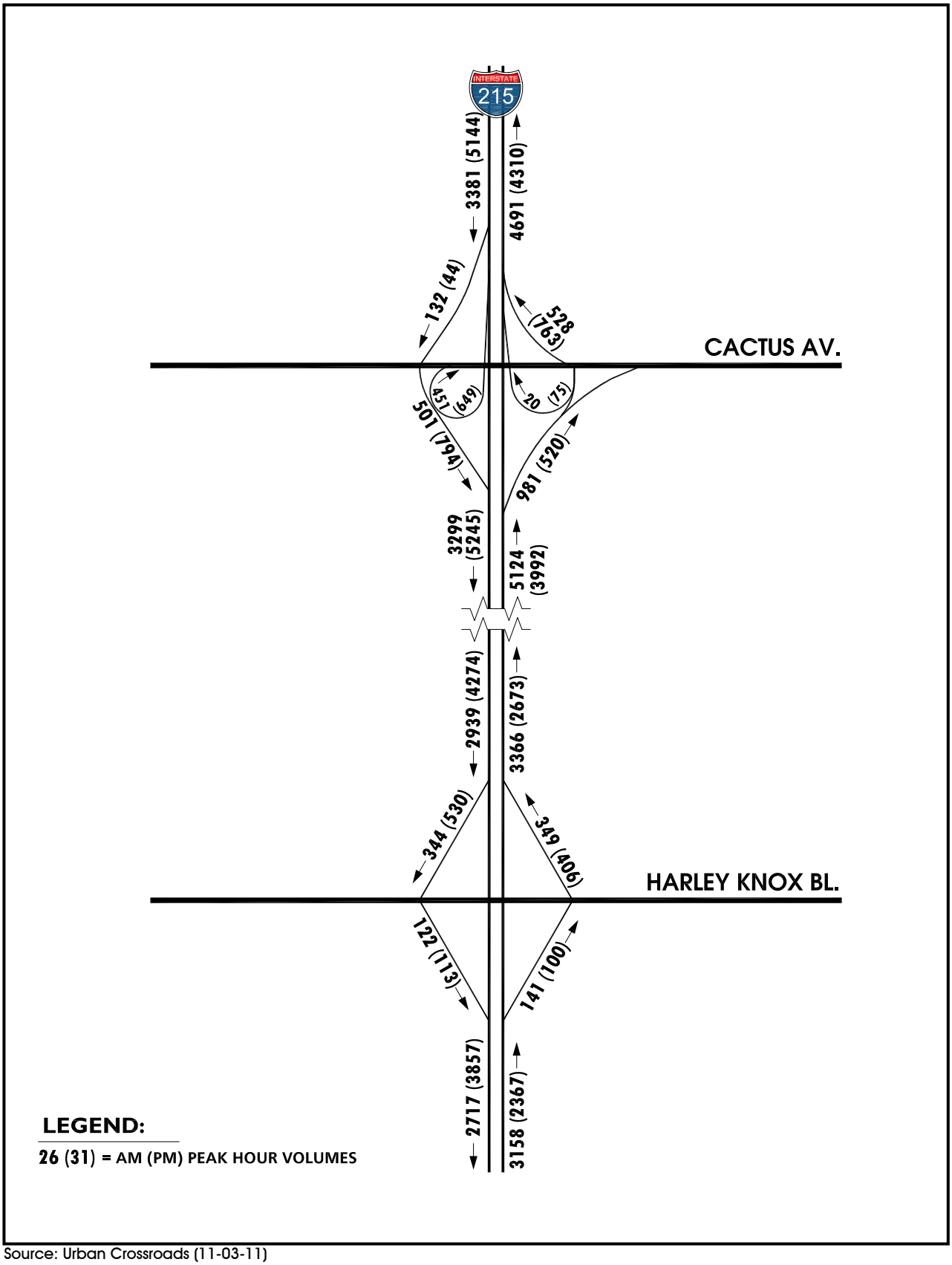
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-5B
Existing (2011) Number of Through Lanes and Intersection Controls (2 of 2)



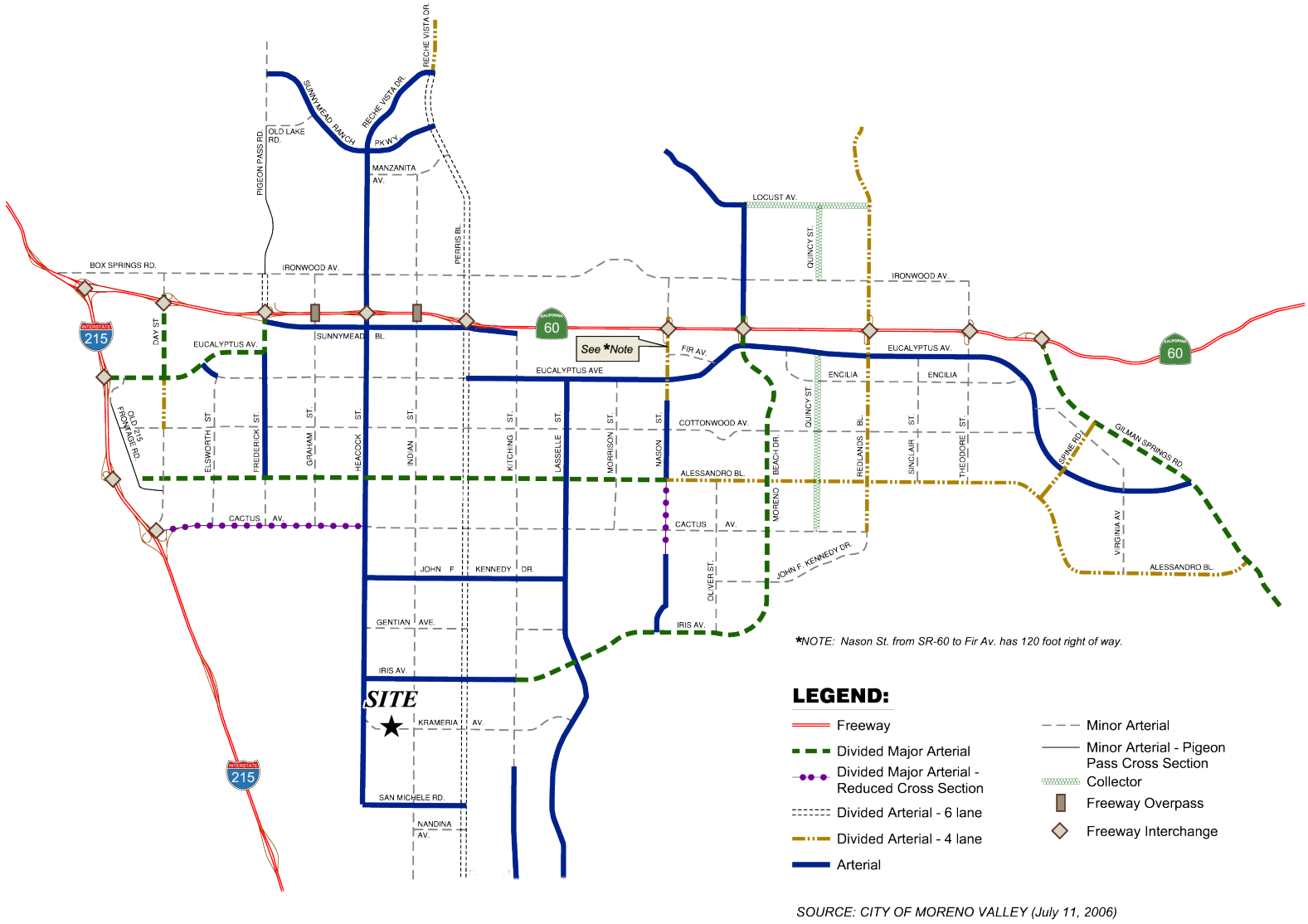
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-6
Existing (2011) Peak Hour Intersection Level of Service



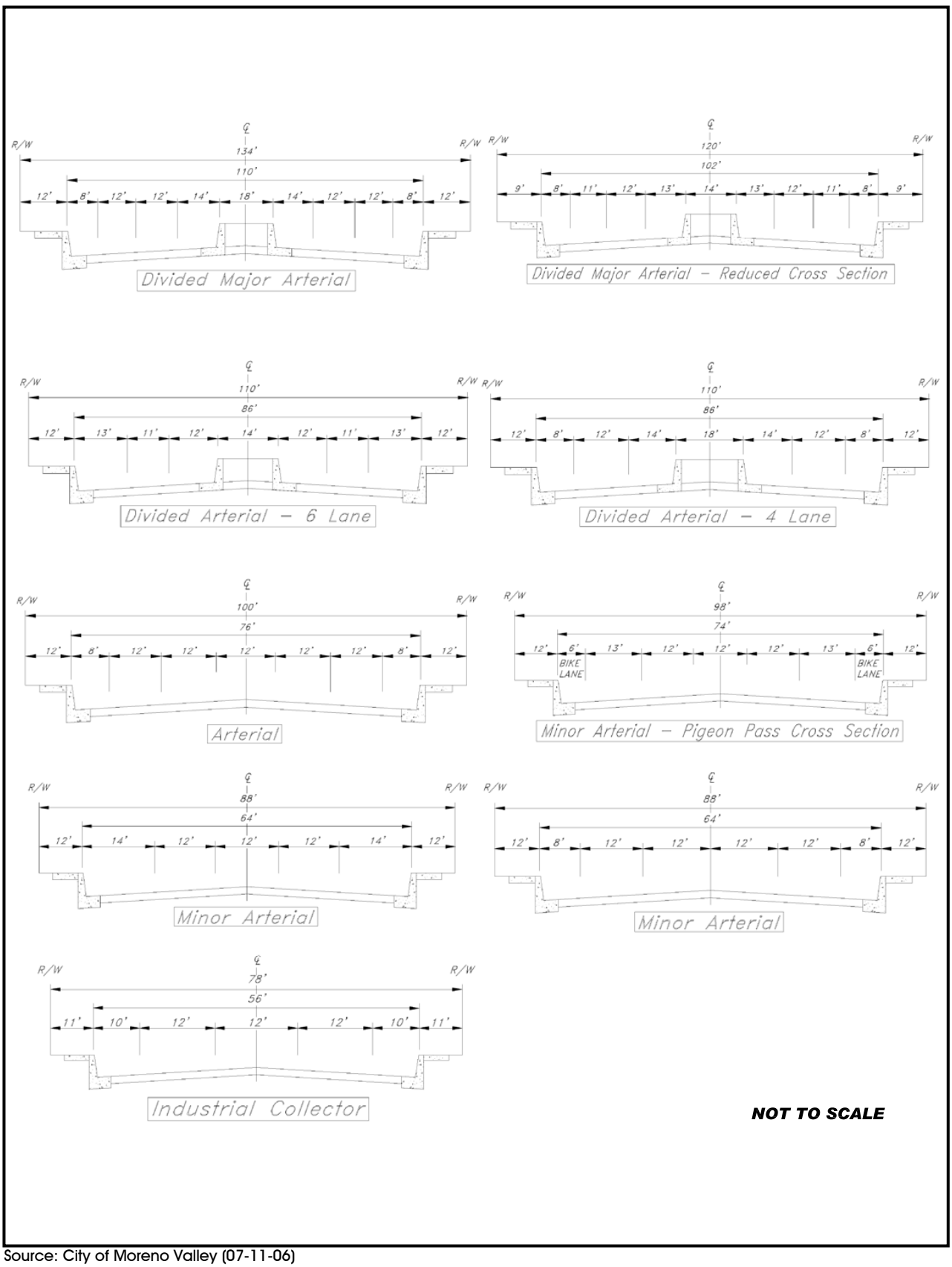
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-7
Existing (2011) I-215 Freeway Mainline Volumes



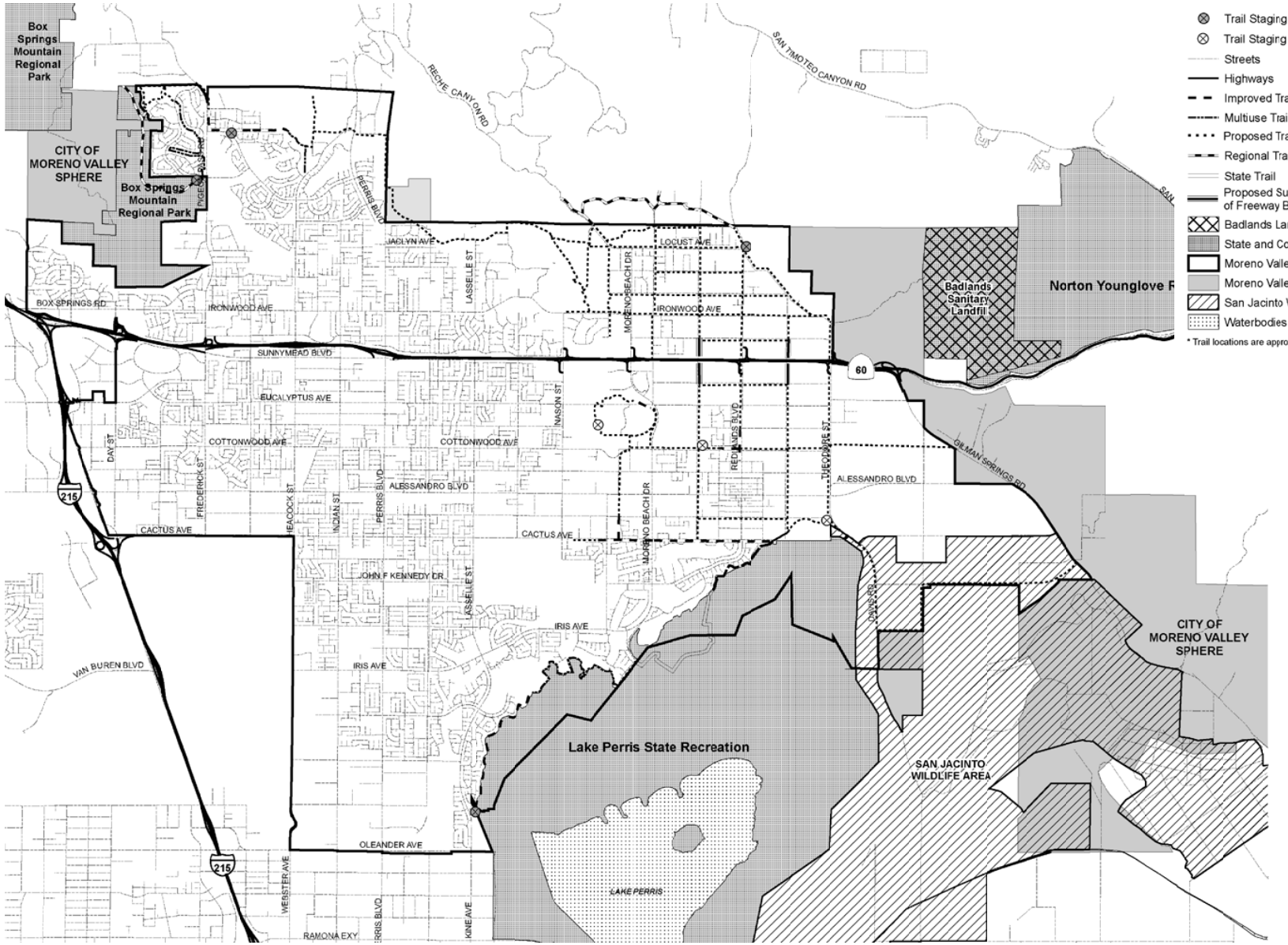
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-8
City of Moreno Valley General Plan Circulation Element



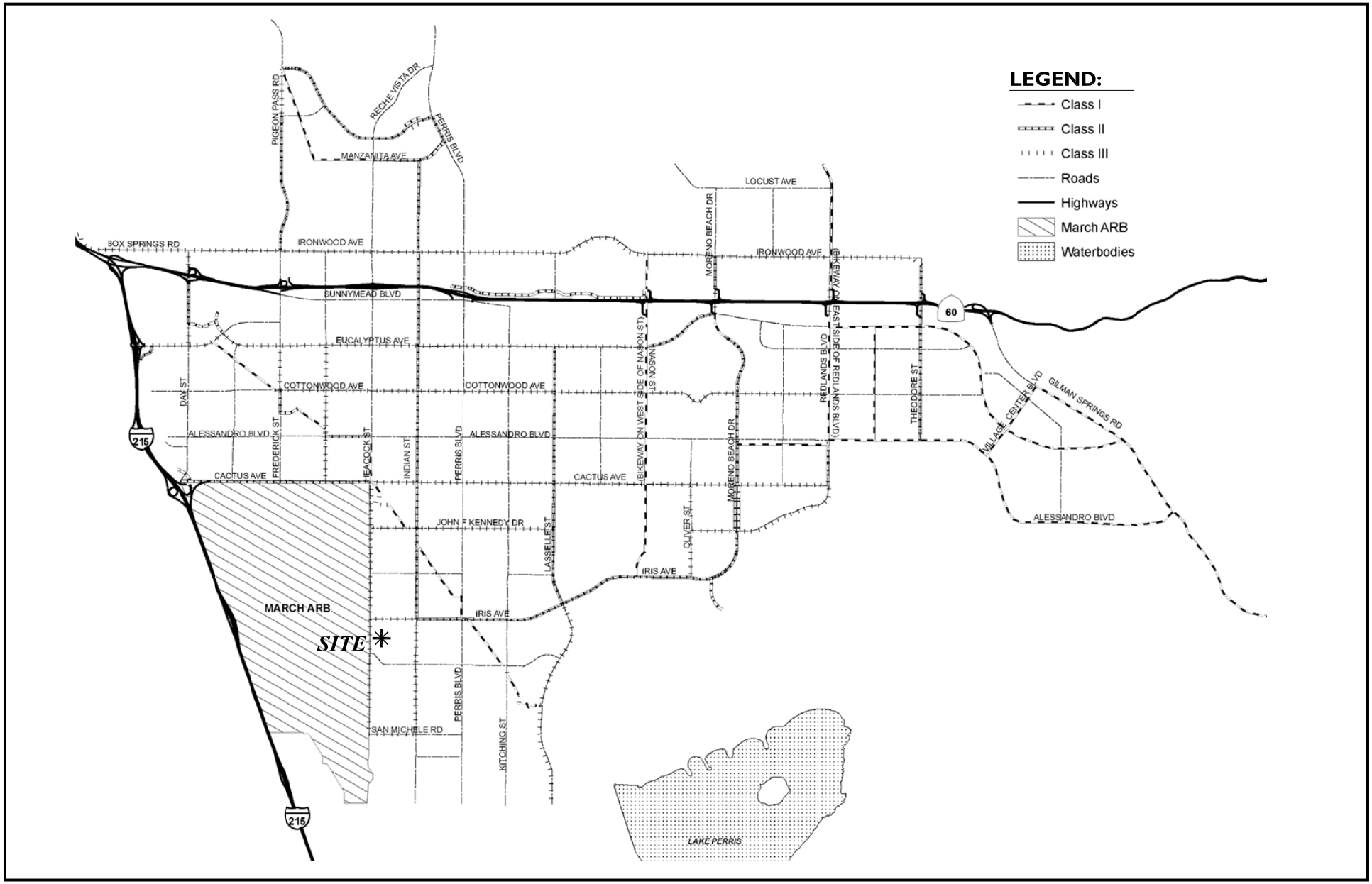
Source: City of Moreno Valley (07-11-06)

FIGURE 4.11-9
City of Moreno Valley General Plan Roadway Cross-Sections



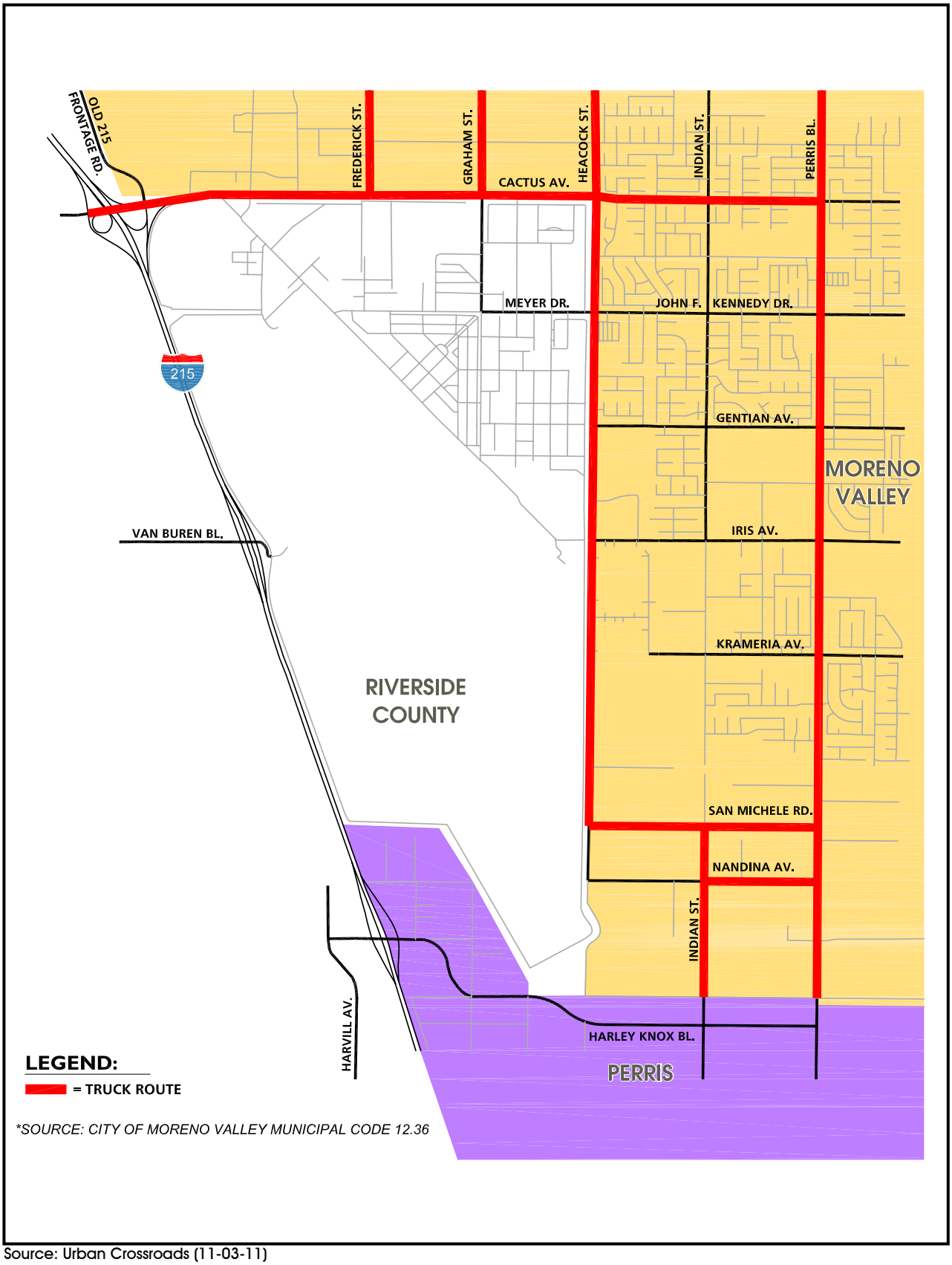
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-10
City of Moreno Valley Master Plan of Trails



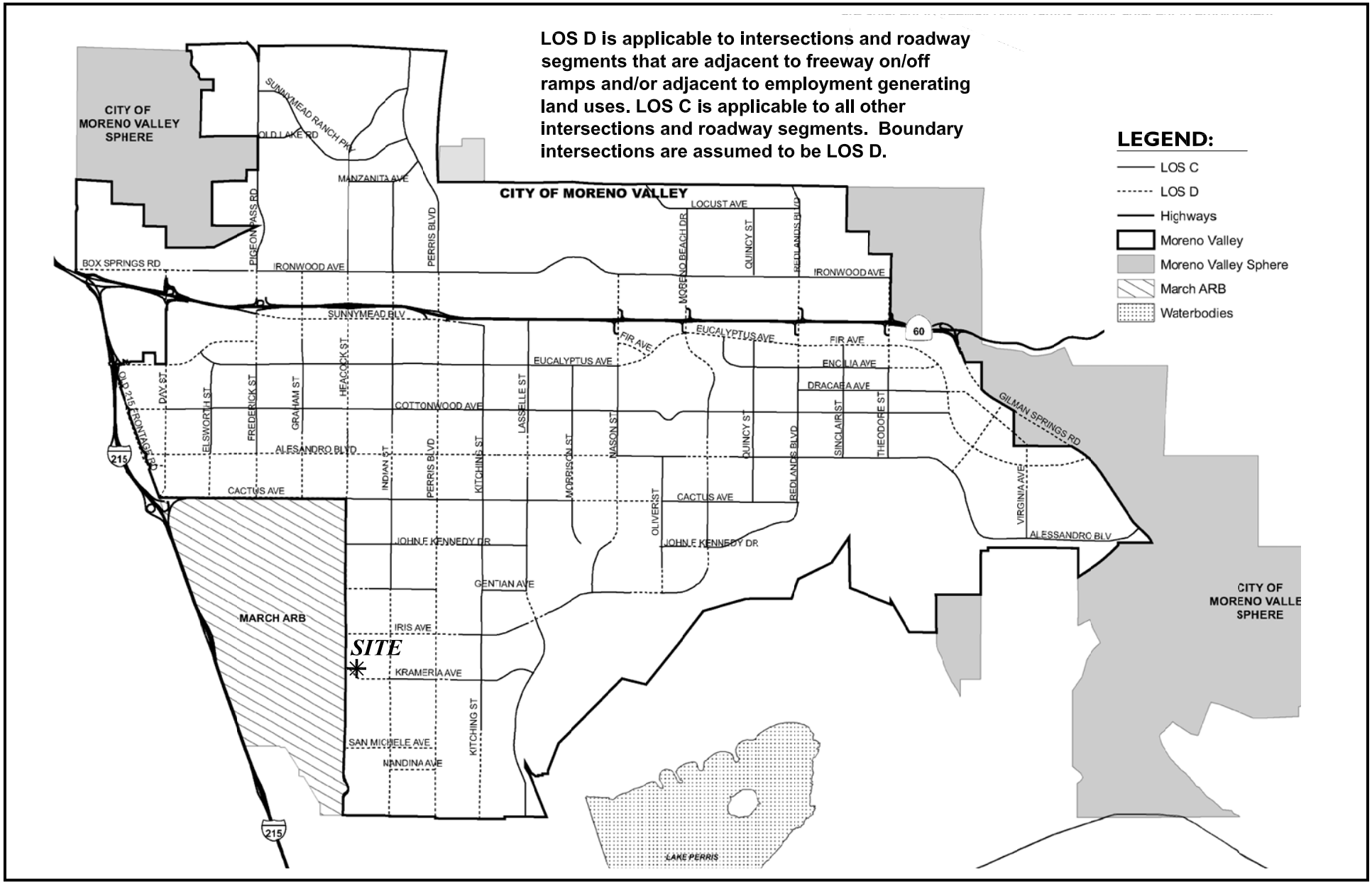
Source: Urban Crossroads (09-08-11)

FIGURE 4.11-11
City of Moreno Valley Bikeway Plan



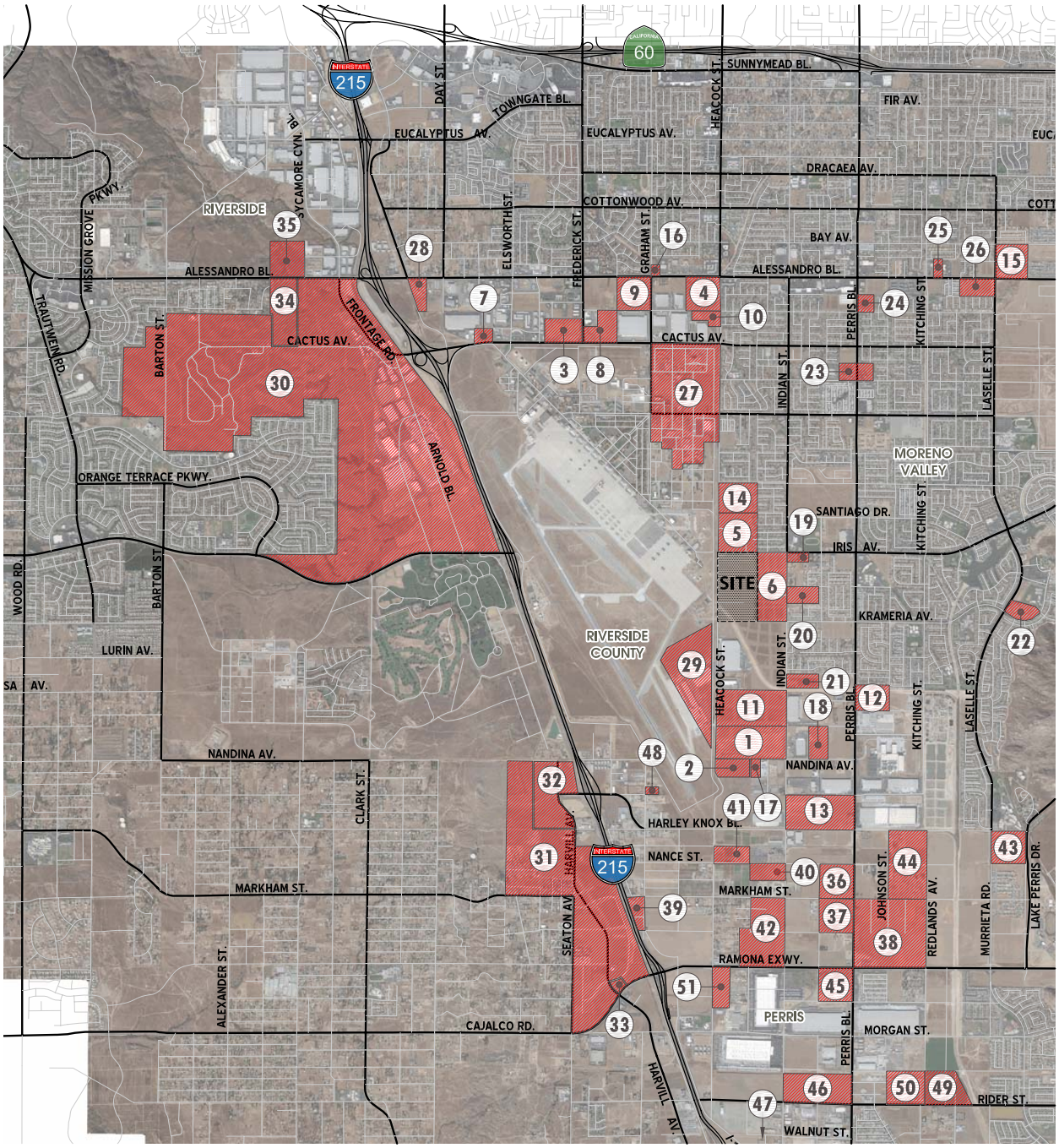
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-12
City of Moreno Valley Truck Routes



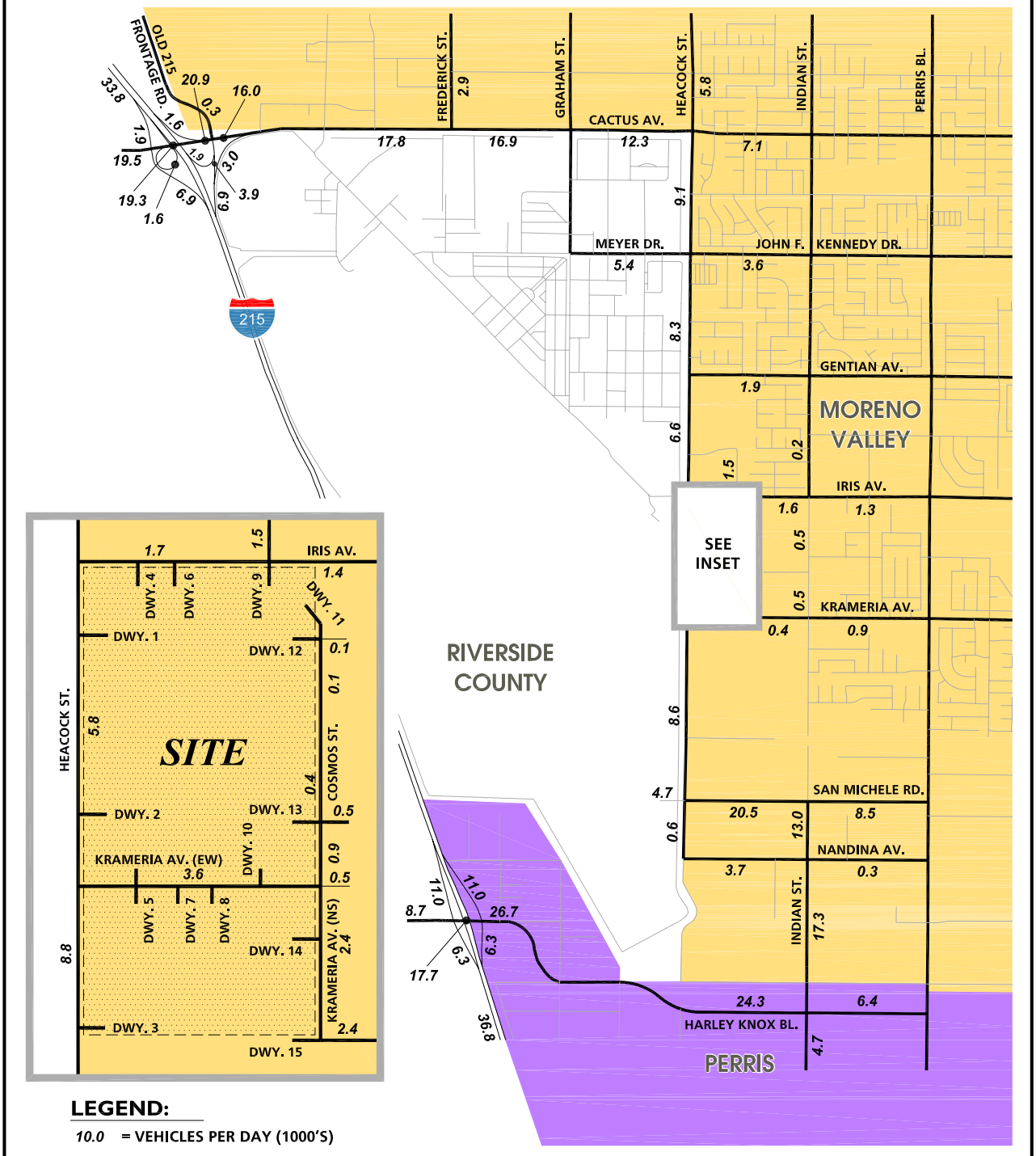
Source: Urban Crossroads (09-08-11)

FIGURE 4.11-13
City of Moreno Valley Level of Service (LOS) Standards



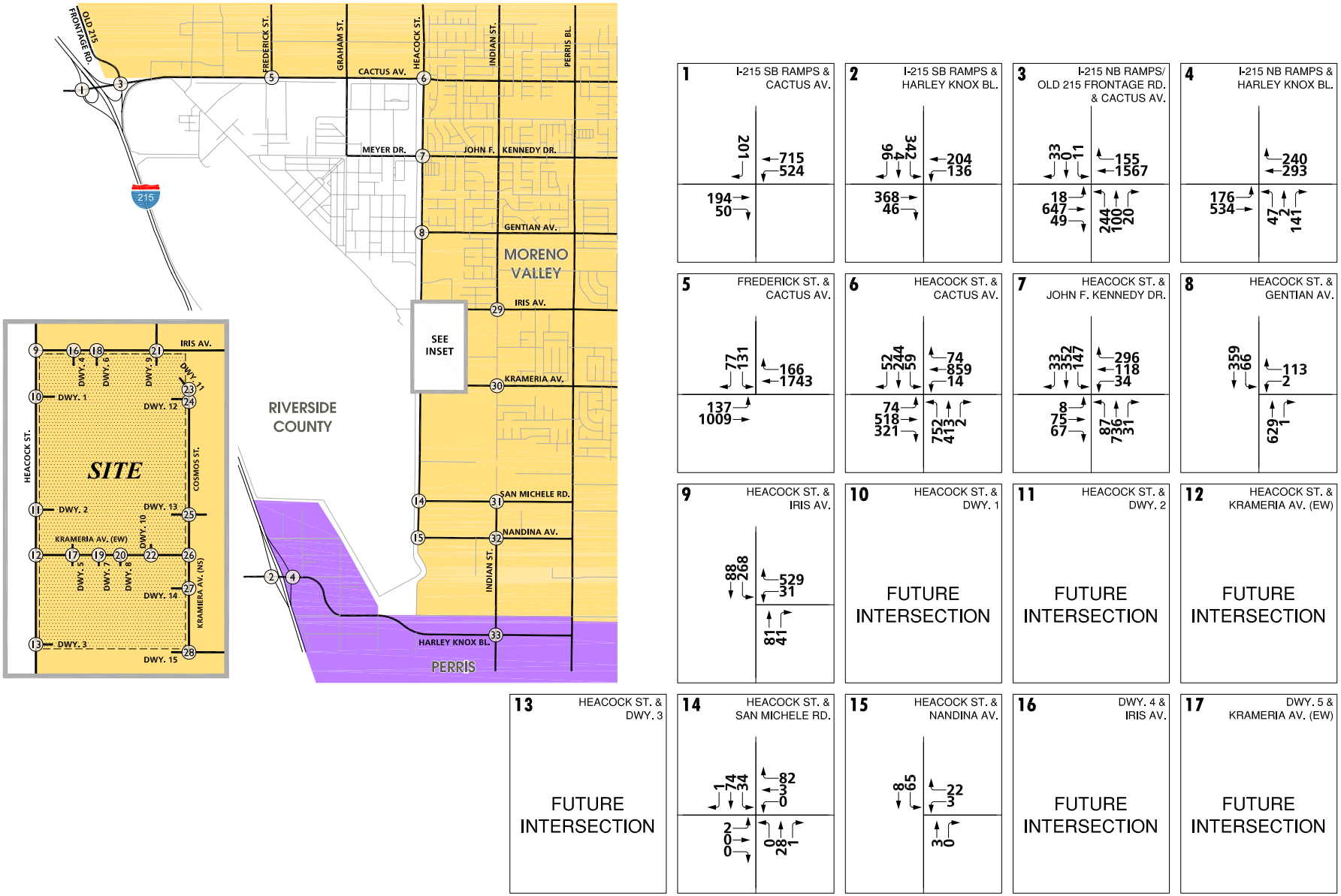
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-14
Cumulative Development Projects Location Map



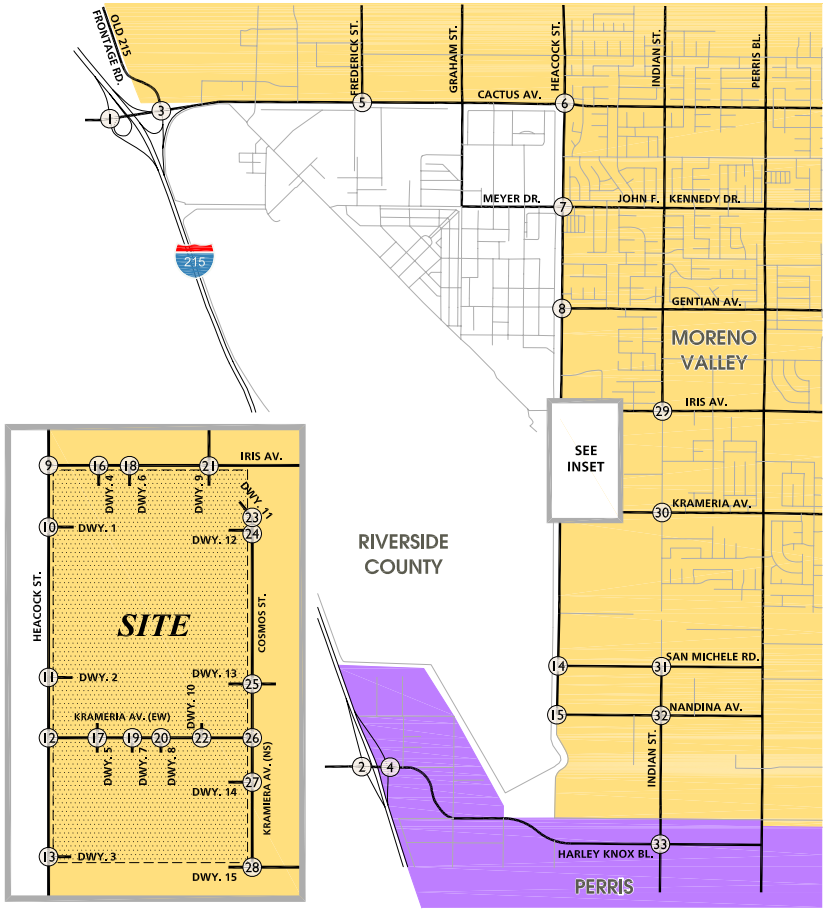
Source: Urban Crossroads (11-03-11)

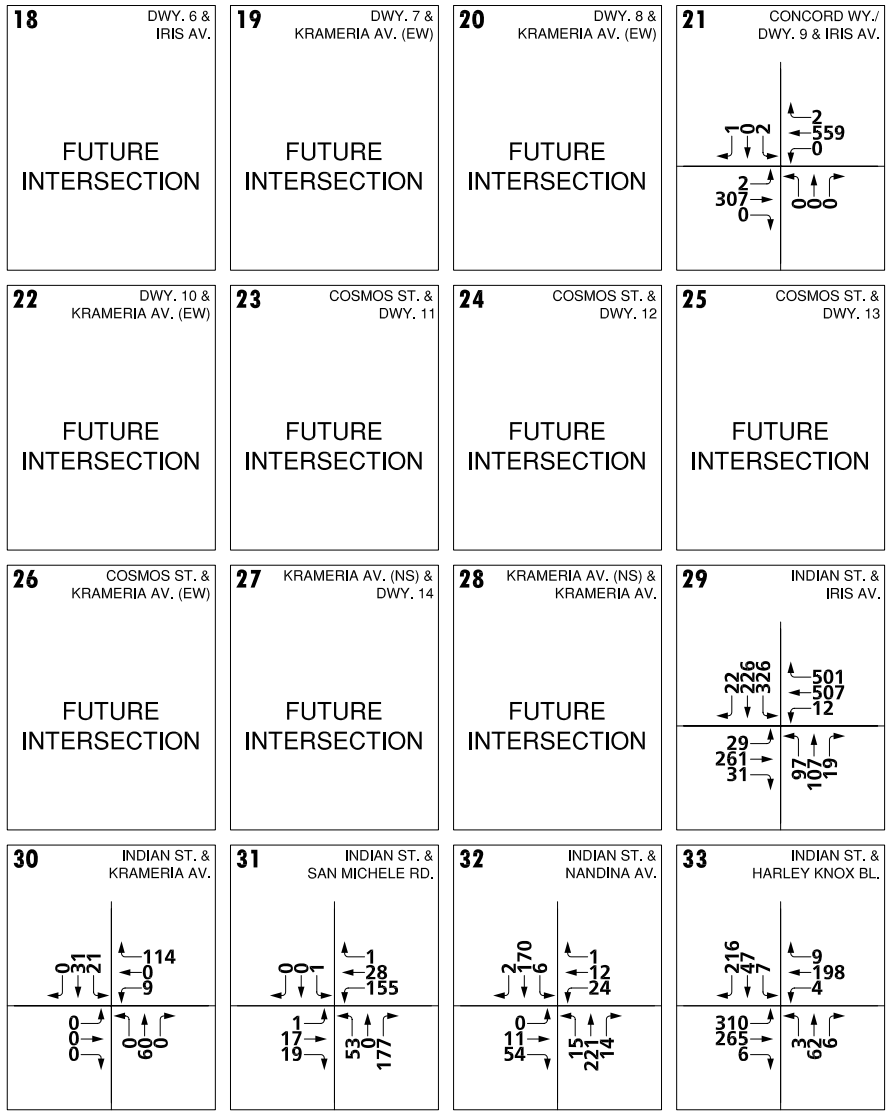
FIGURE 4.11-15
Cumulative Development Projects Average Daily Traffic ((ADT)



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-16A
Cumulative Development Projects AM Peak Hour Intersection Volumes (1 of 2)





Source: Urban Crossroads (11-03-11)

FIGURE 4.11-16B
Cumulative Development Projects AM Peak Hour Intersection Volumes (2 of 2)

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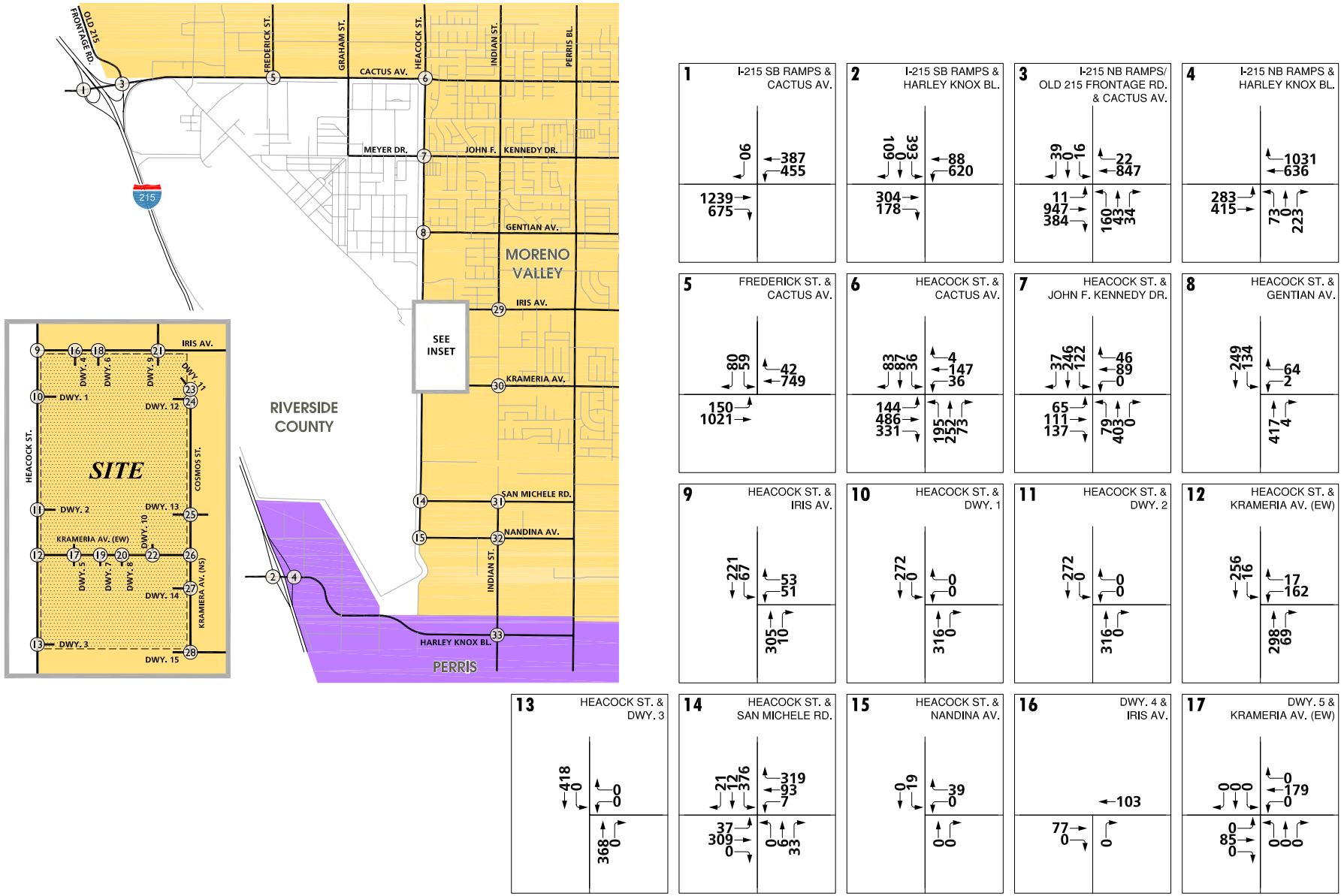
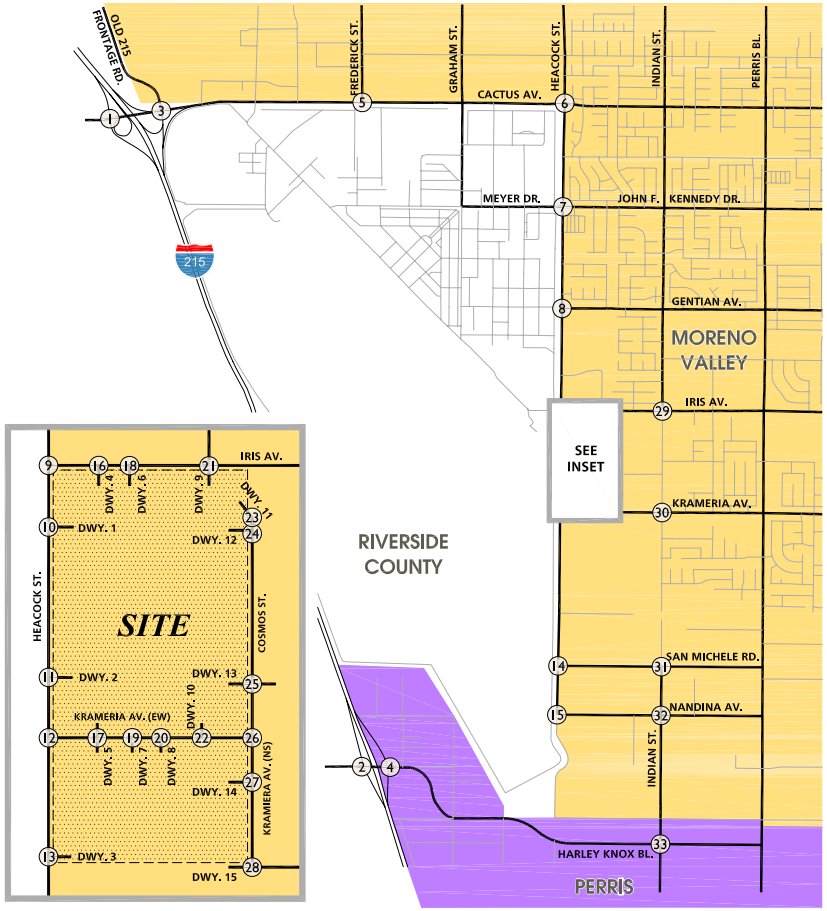
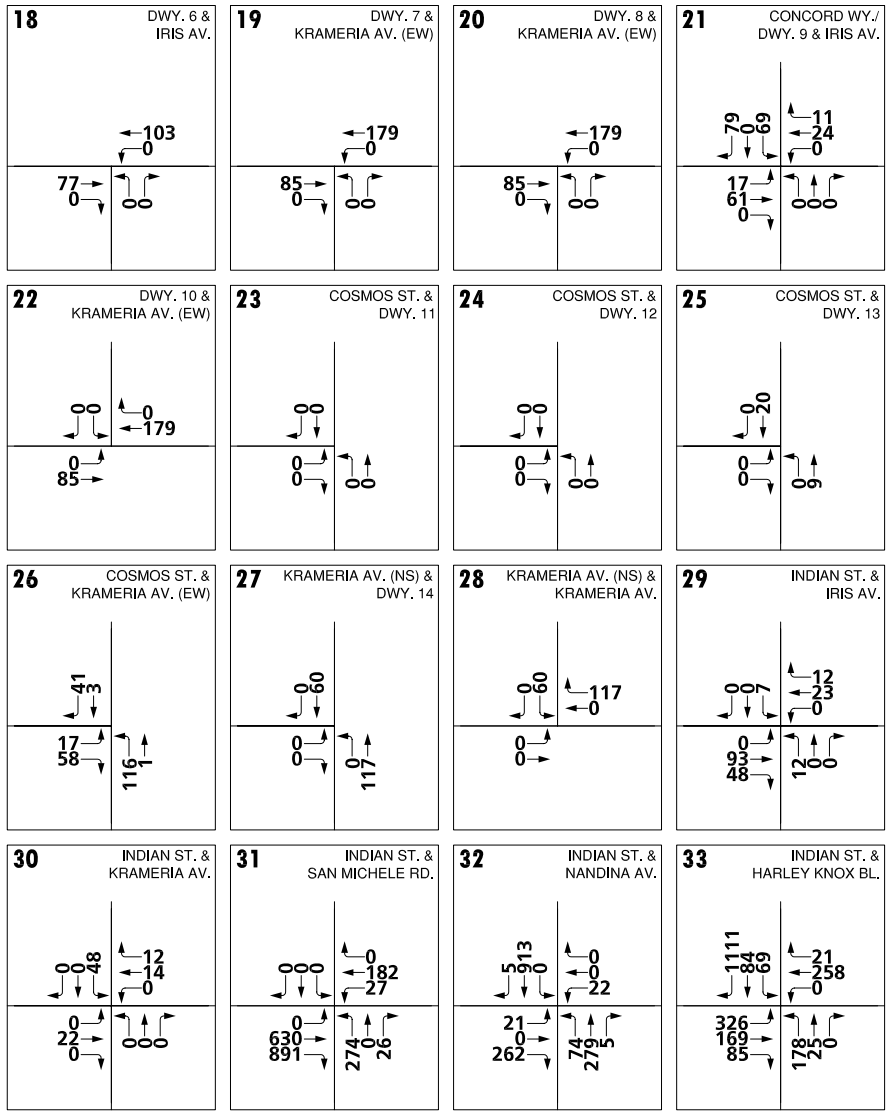


Source: Urban Crossroads (11-03-11)

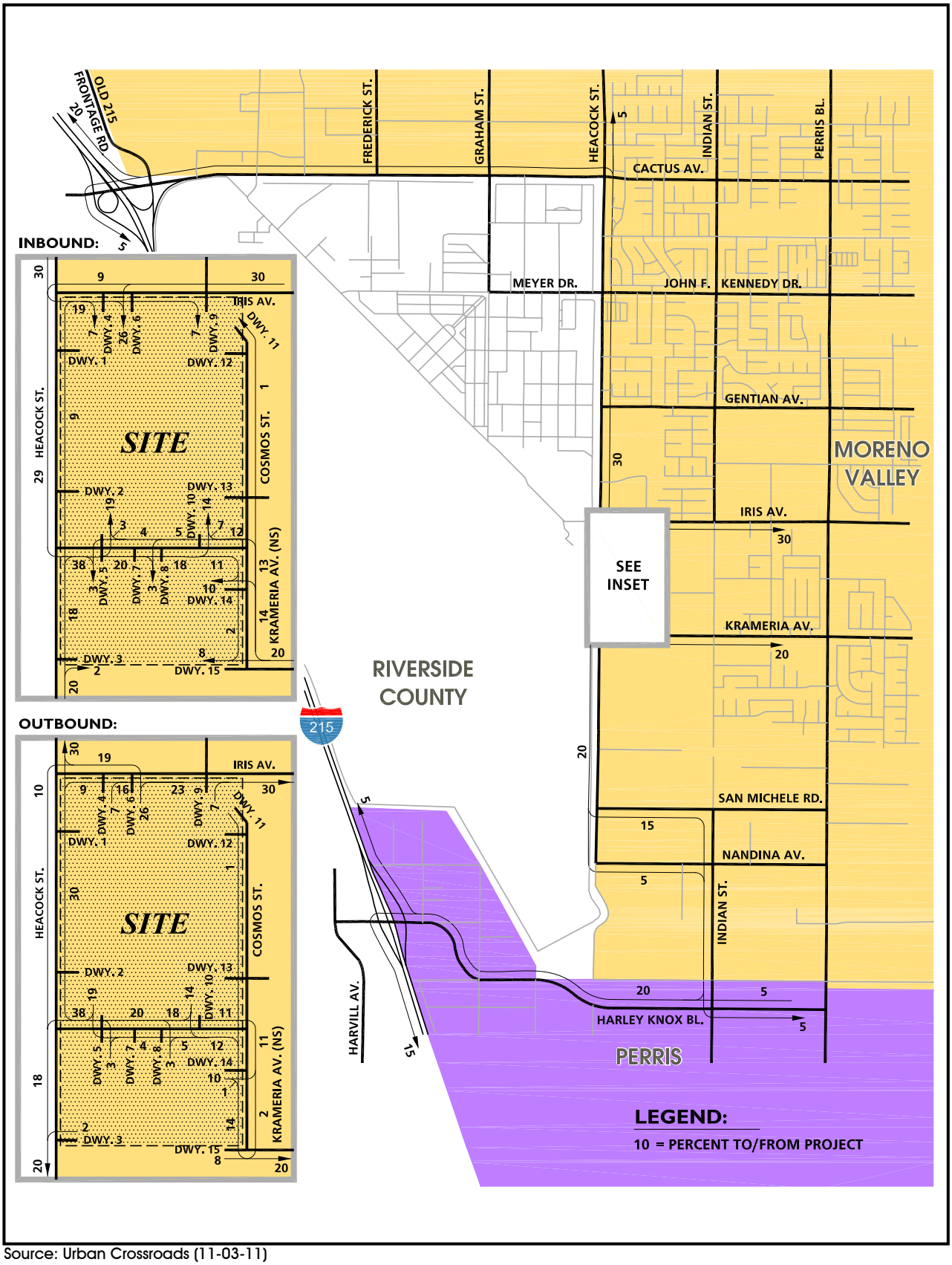
FIGURE 4.11-17A
Cumulative Development Projects PM Peak Hour Intersection Volumes (1 of 2)





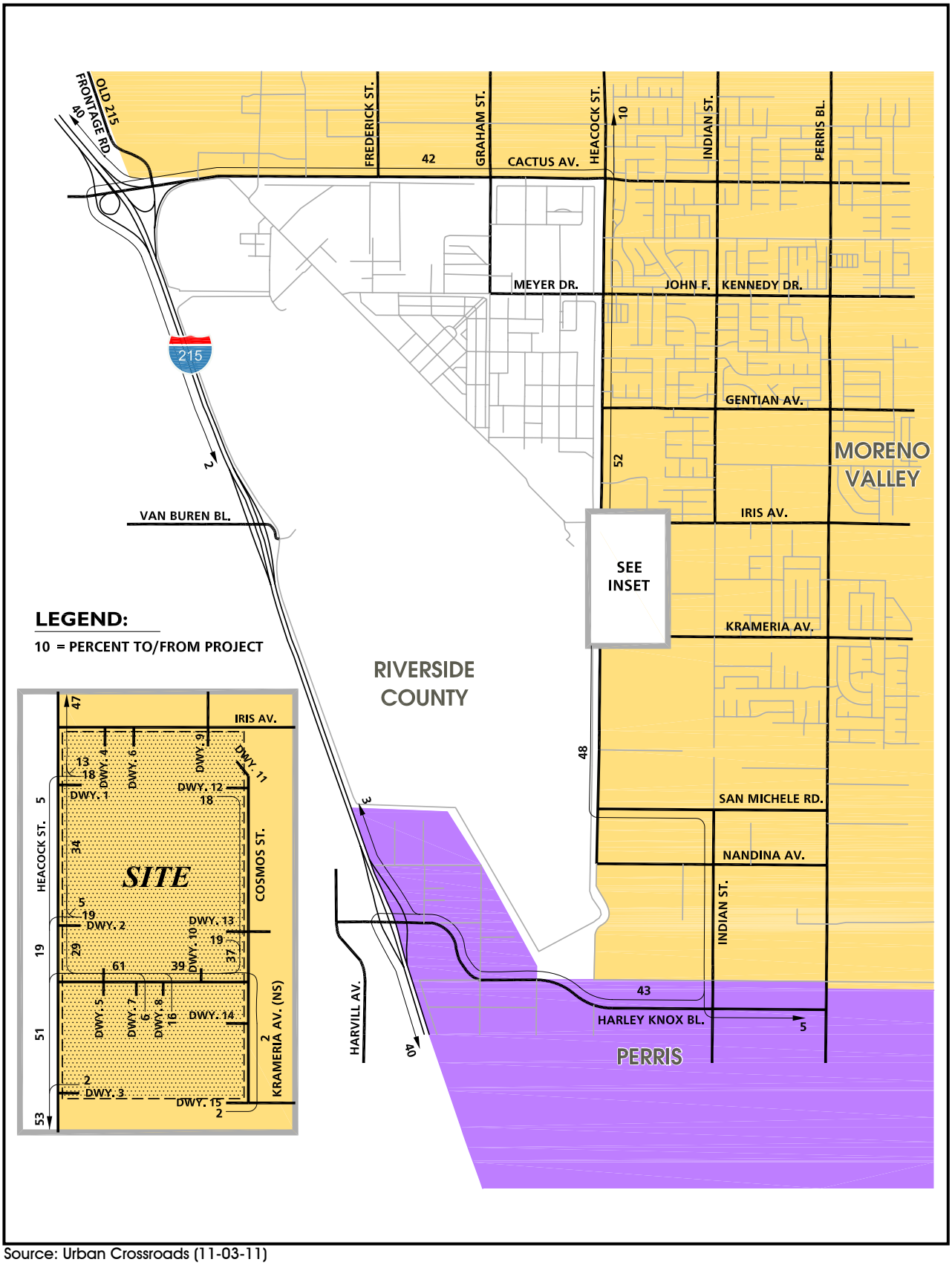
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-17B
Cumulative Development Projects PM Peak Hour Intersection Volumes (2 of 2)



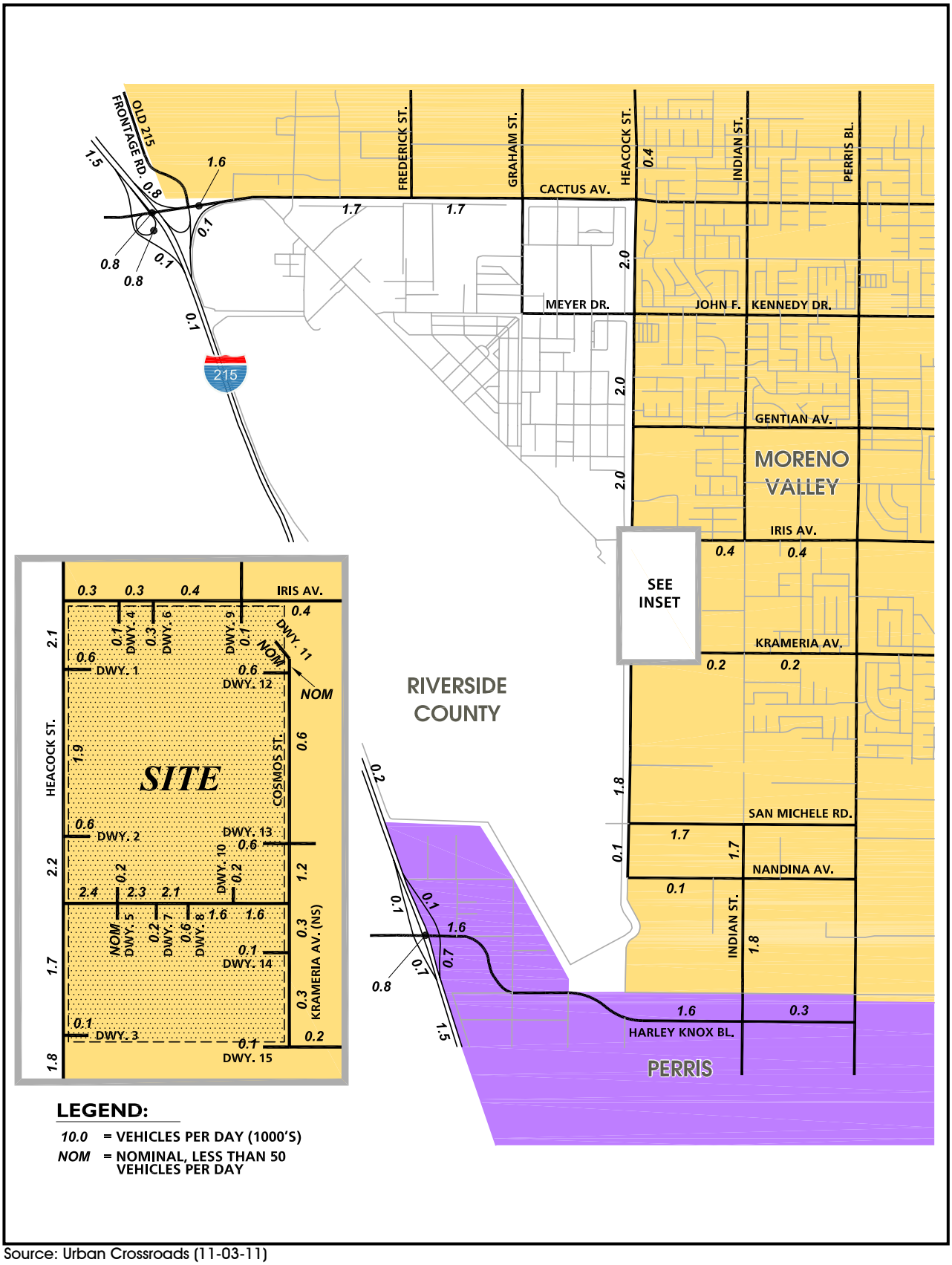
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-18
Project Passenger Car Trip Distribution



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-19
Project Truck Trip Distribution

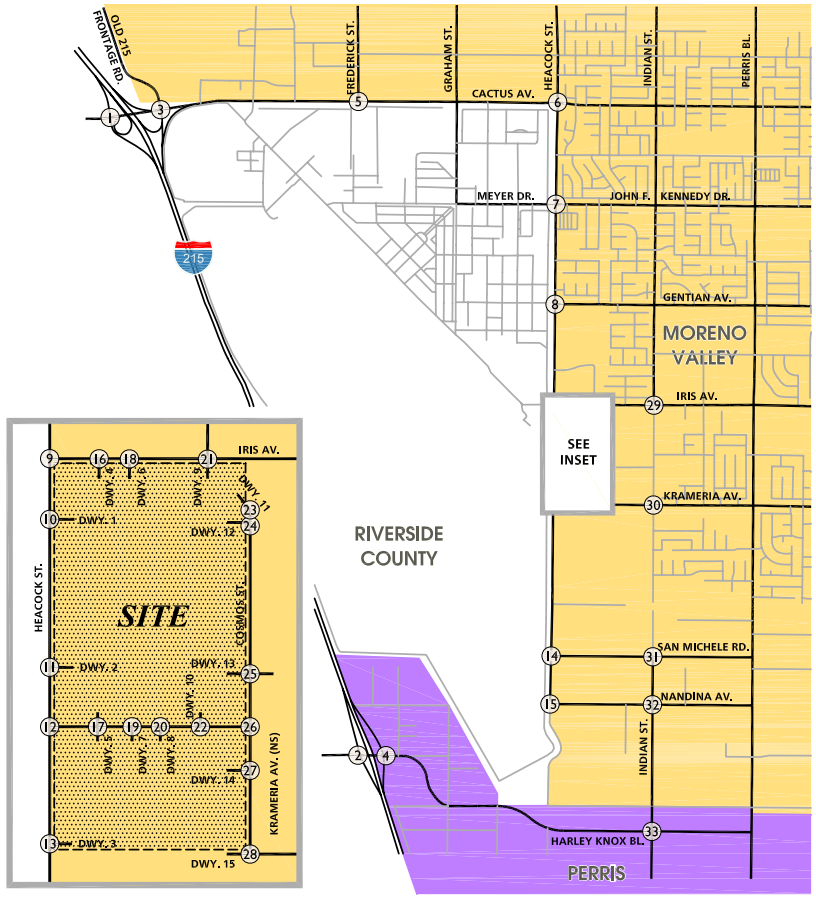


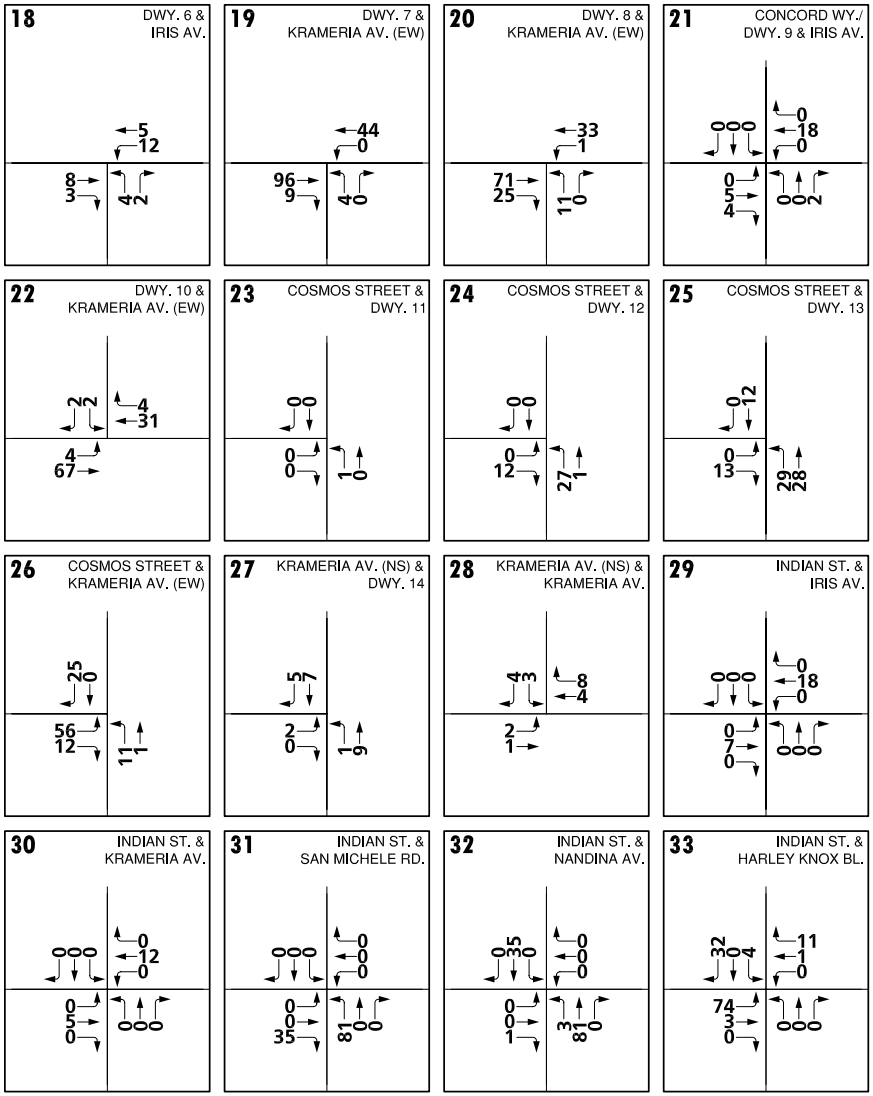
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-20
Project (2016) Average Daily Traffic (ADT)

Source: Urban Crossroads (11-03-11)

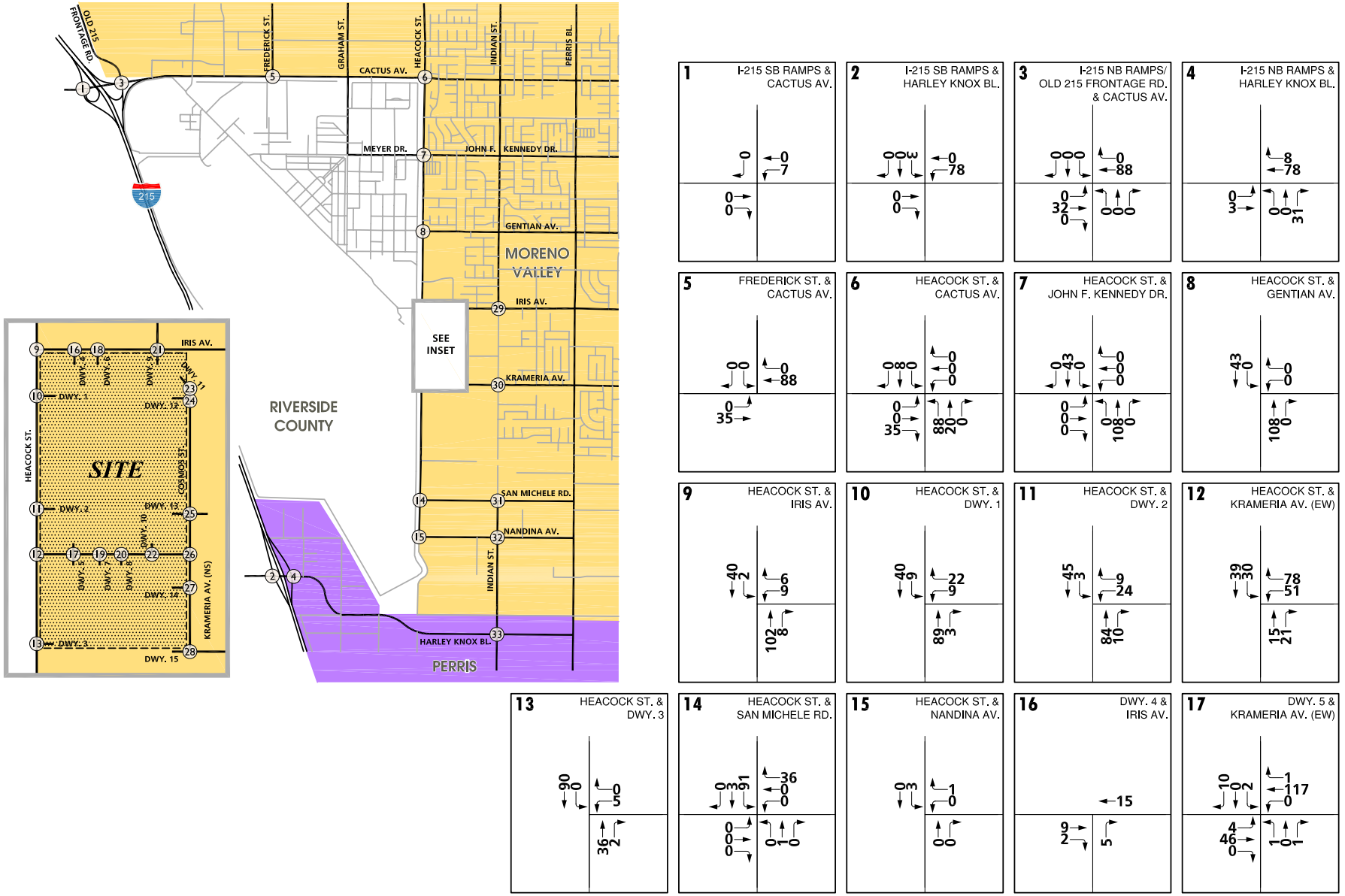
FIGURE 4.11-21A
Project (2016) AM Peak Hour Intersection Volumes (1 of 2)





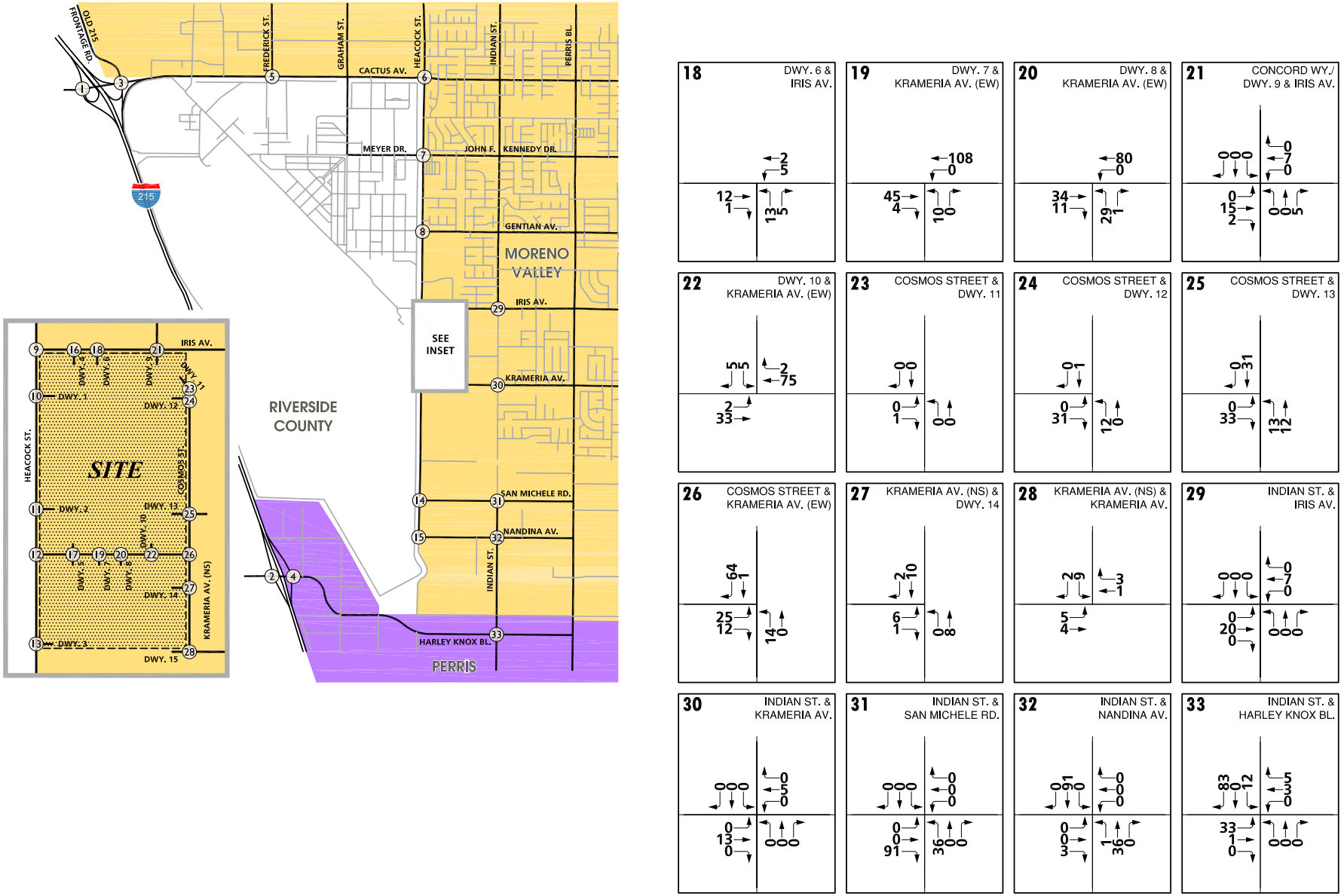
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-21B
Project (2016) AM Peak Hour Intersection Volumes (2 of 2)



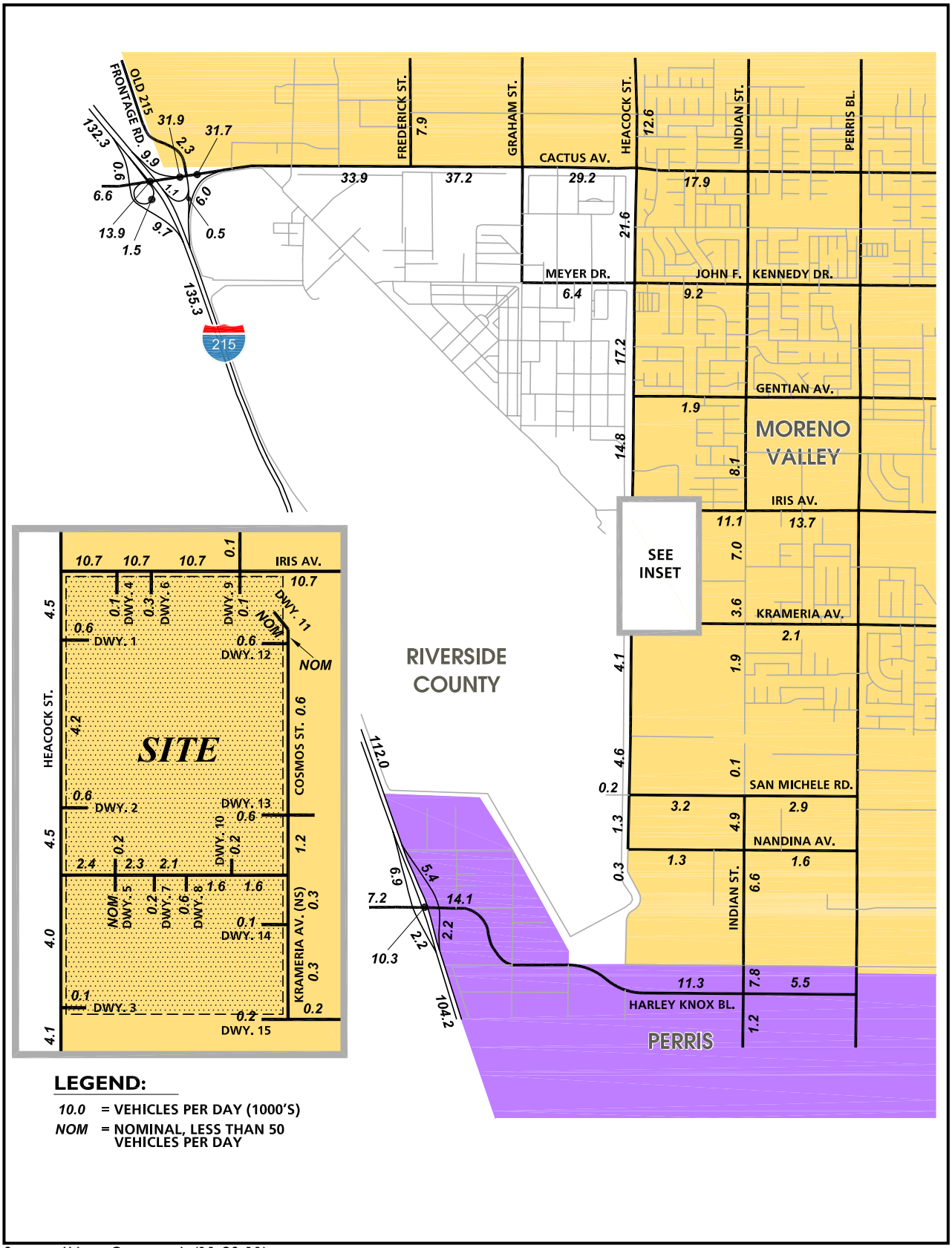
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-22A
Project (2016) PM Peak Hour Intersection Volumes (1 of 2)



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-22B
Project (2016) PM Peak Hour Intersection Volumes (2 of 2)

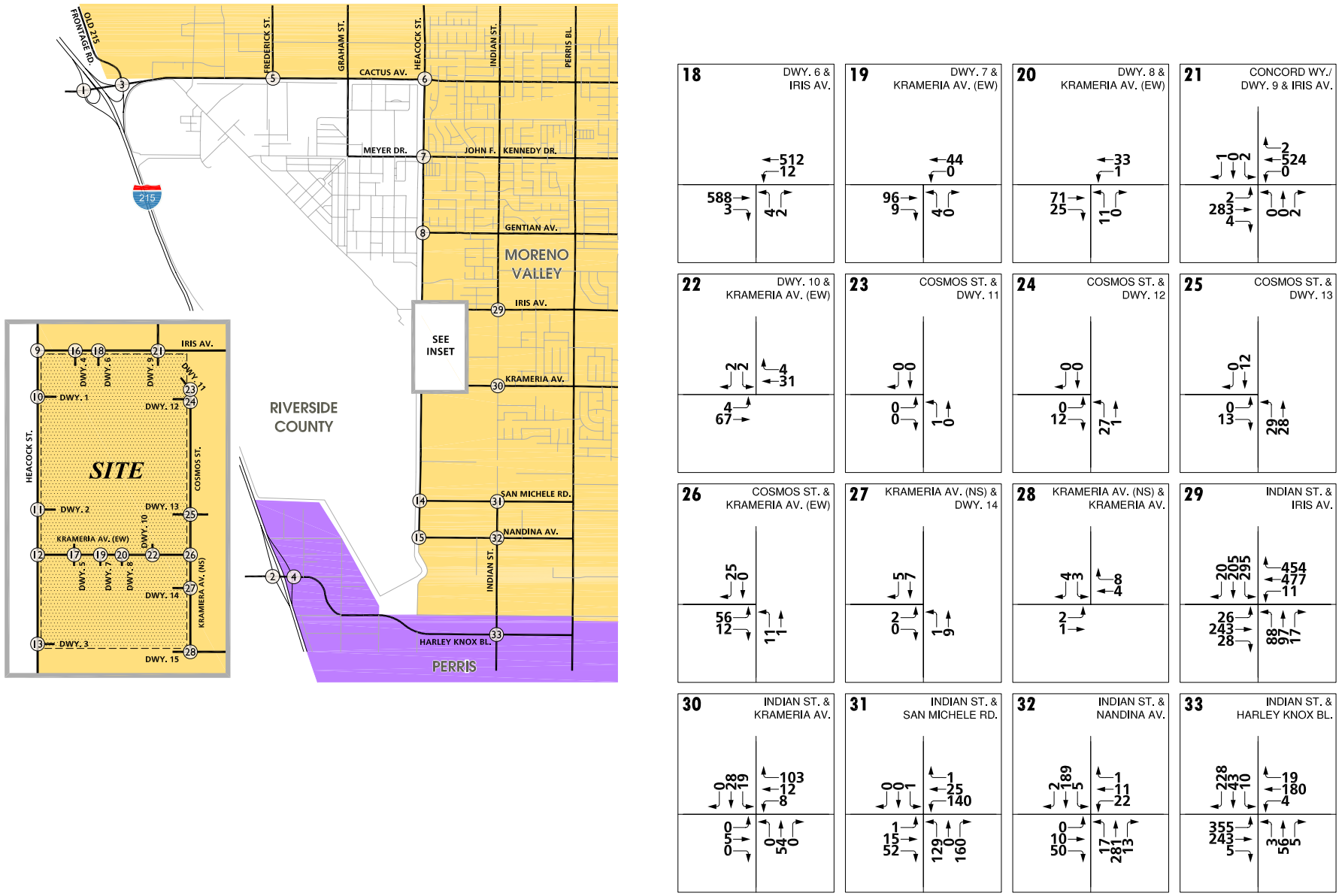


Source: Urban Crossroads (11-03-11)

FIGURE 4.11-23
Existing Plus Project (E+P) Average Daily Traffic (ADT)

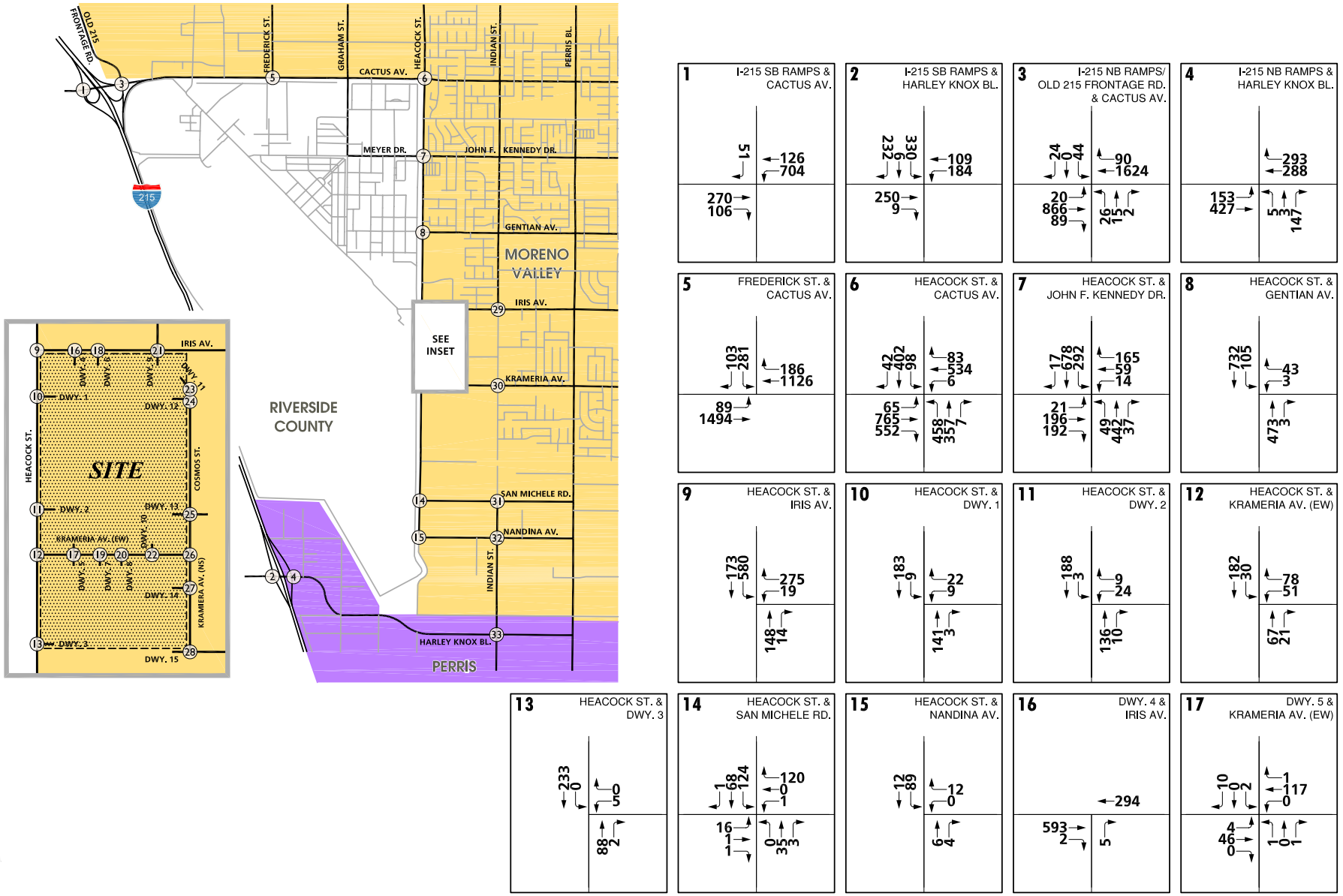
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-24A
Existing Plus Project (E+P) AM Peak Hour Intersection Volumes (1 of 2)



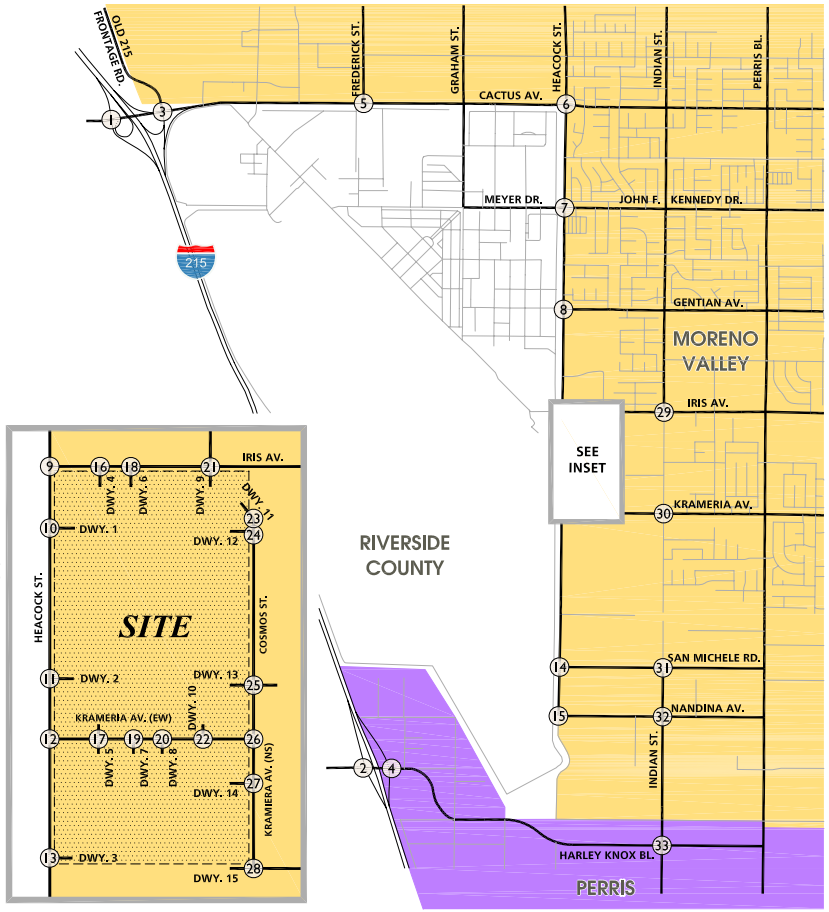
Source: Urban Crossroads (11-03-11)

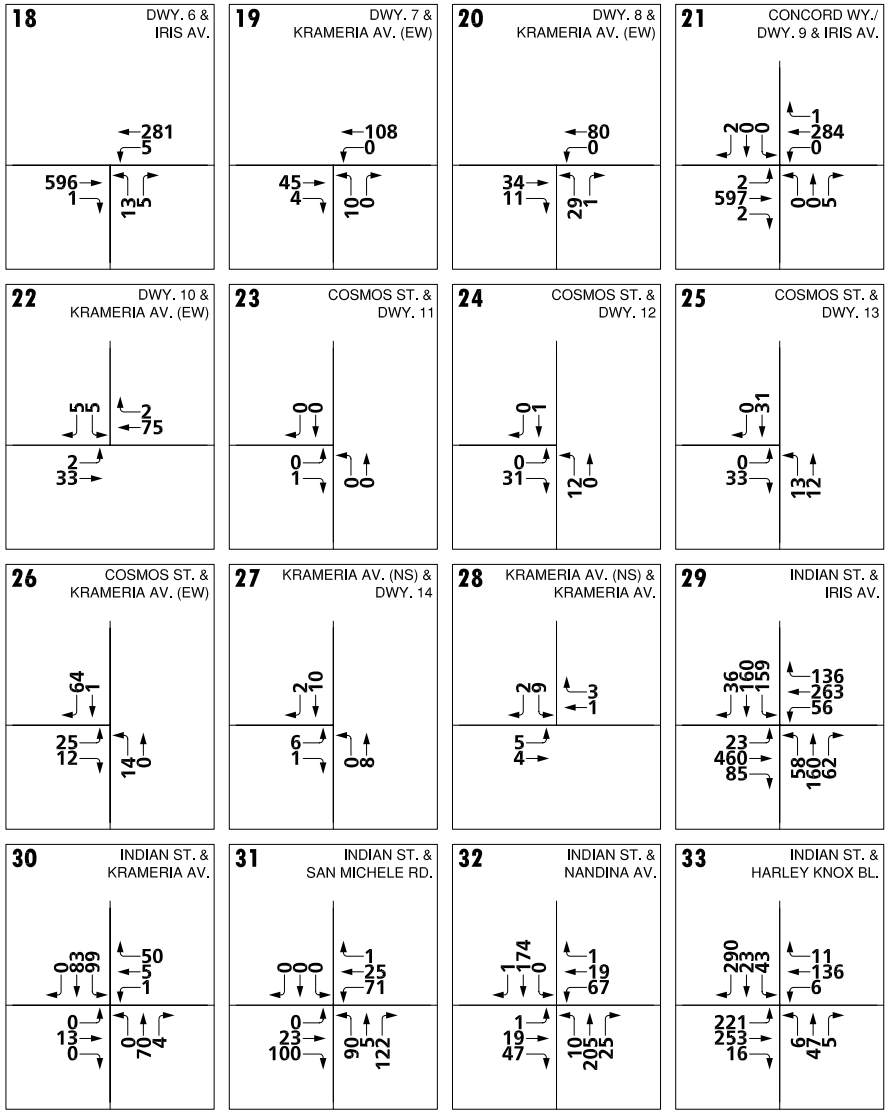
FIGURE 4.11-24B
Existing Plus Project (E+P) AM Peak Hour Intersection Volumes (2 of 2)



Source: Urban Crossroads (11-03-11)

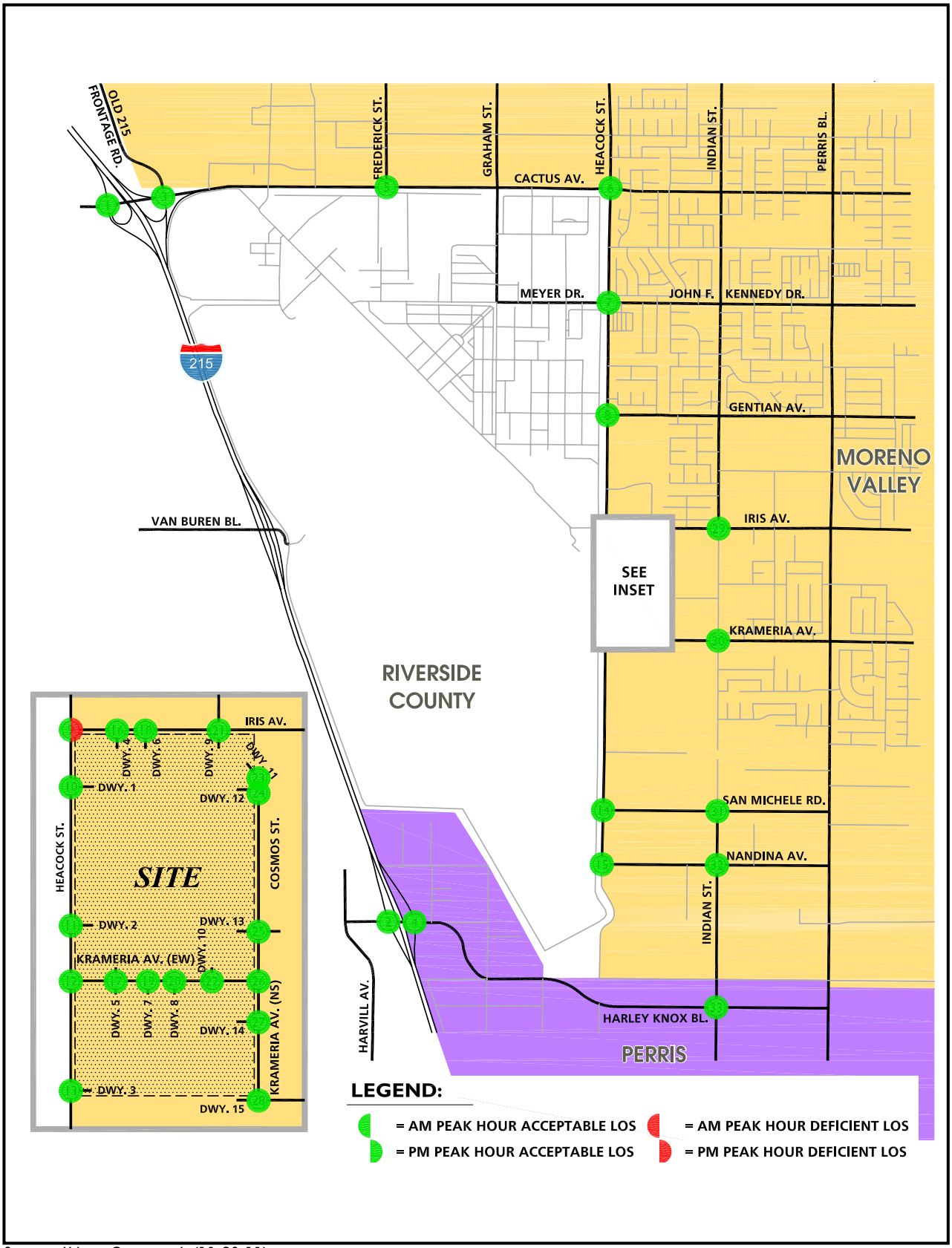
FIGURE 4.11-25A
Existing Plus Project (E+P) PM Peak Hour Intersection Volumes (1 of 2)





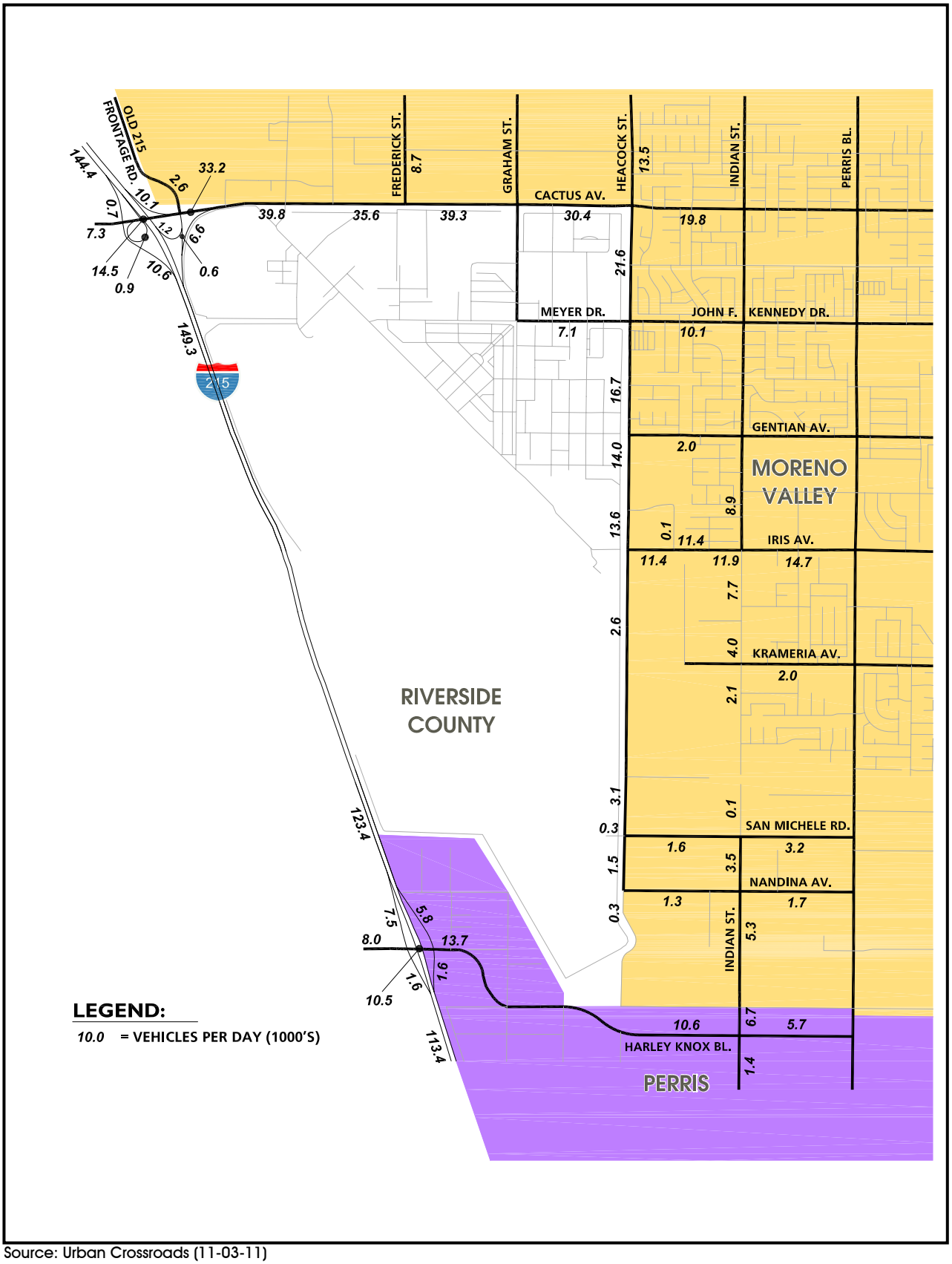
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-25B
Existing Plus Project (E+P) PM Peak Hour Intersection Volumes (2 of 2)



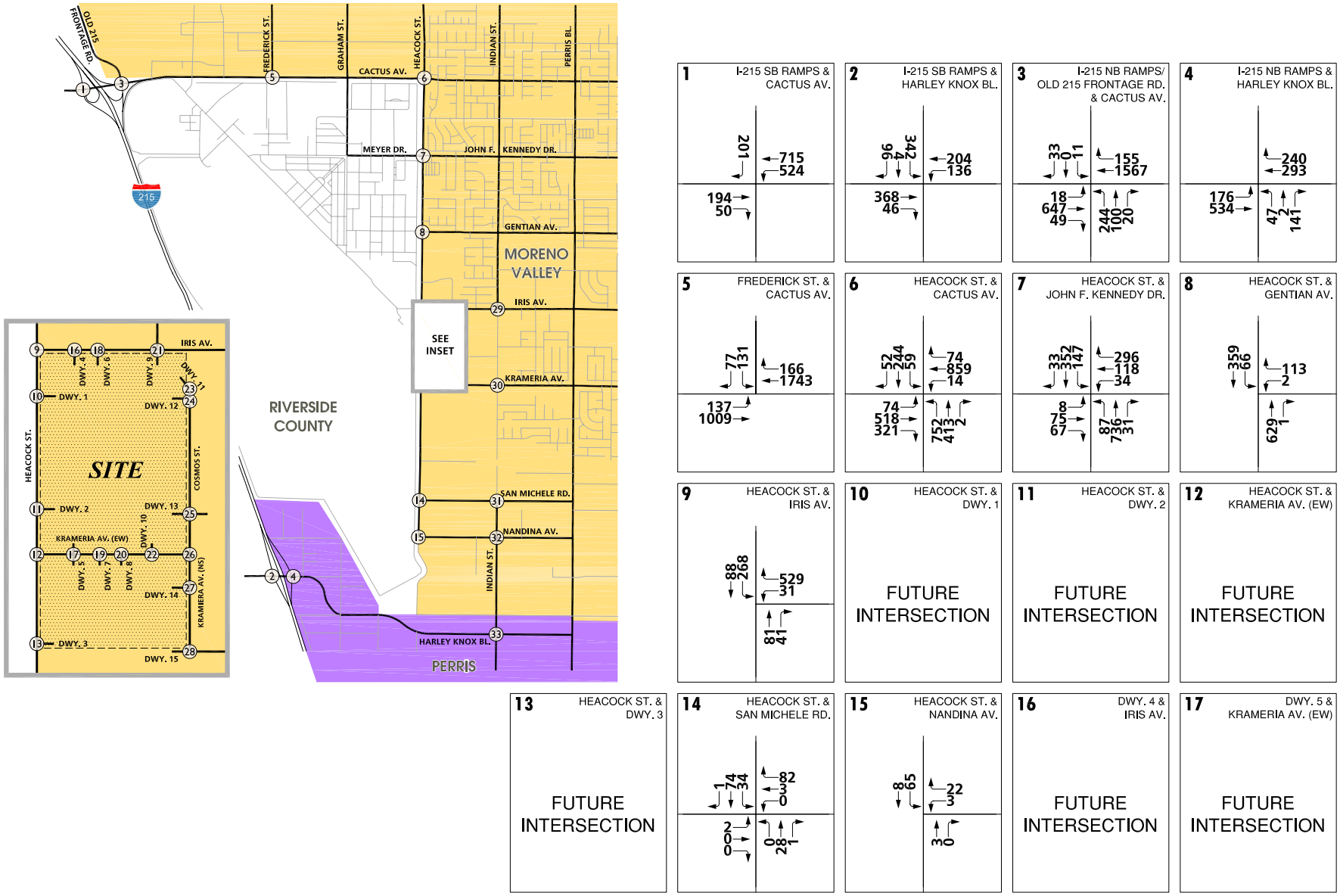
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-26
Existing Plus Project (E+P) Peak Hour Intersection Level of Service (LOS)



Source: Urban Crossroads (11-03-11)

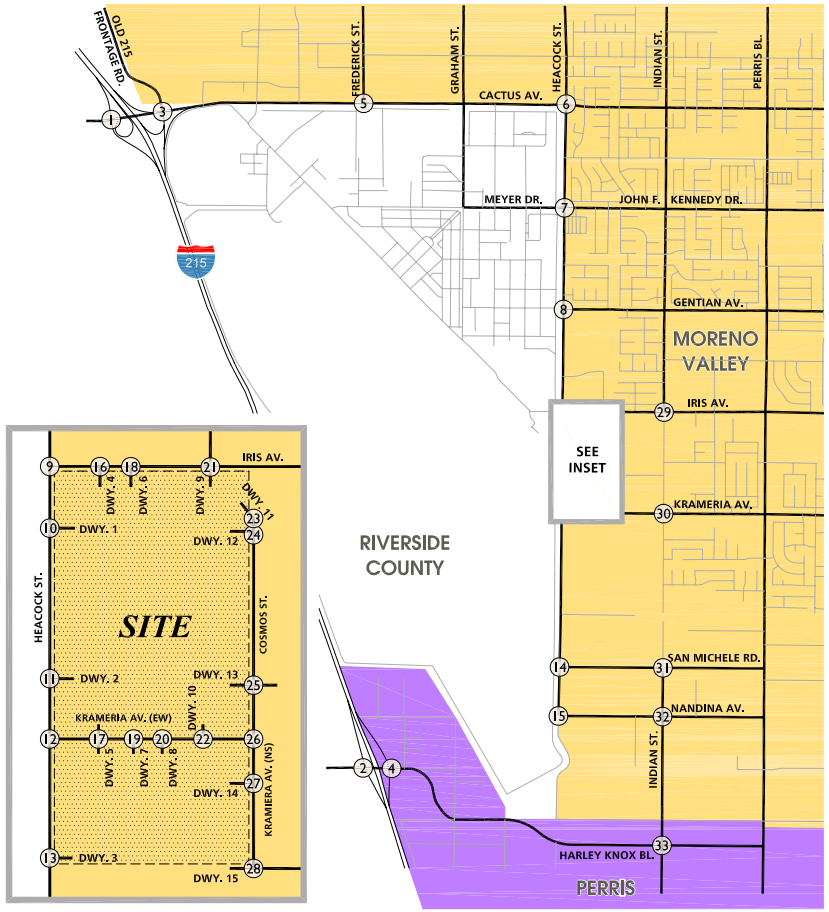
FIGURE 4.11-27
Opening Year (2016) Without Project (E+A) Average Daily Traffic (ADT)

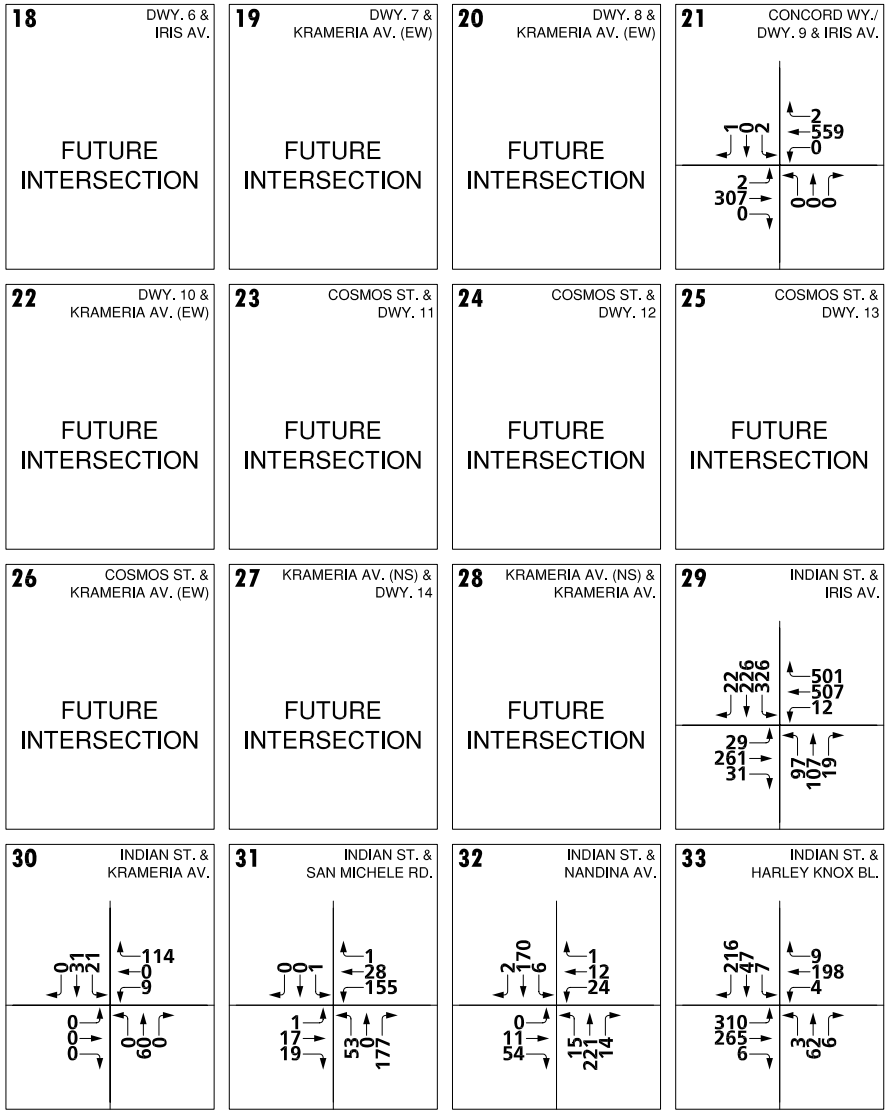


Source: Urban Crossroads (11-03-11)

FIGURE 4.11-28A

Opening Year (2016) Without Project (E+A) AM Peak Hour Intersection Volumes (1 of 2)

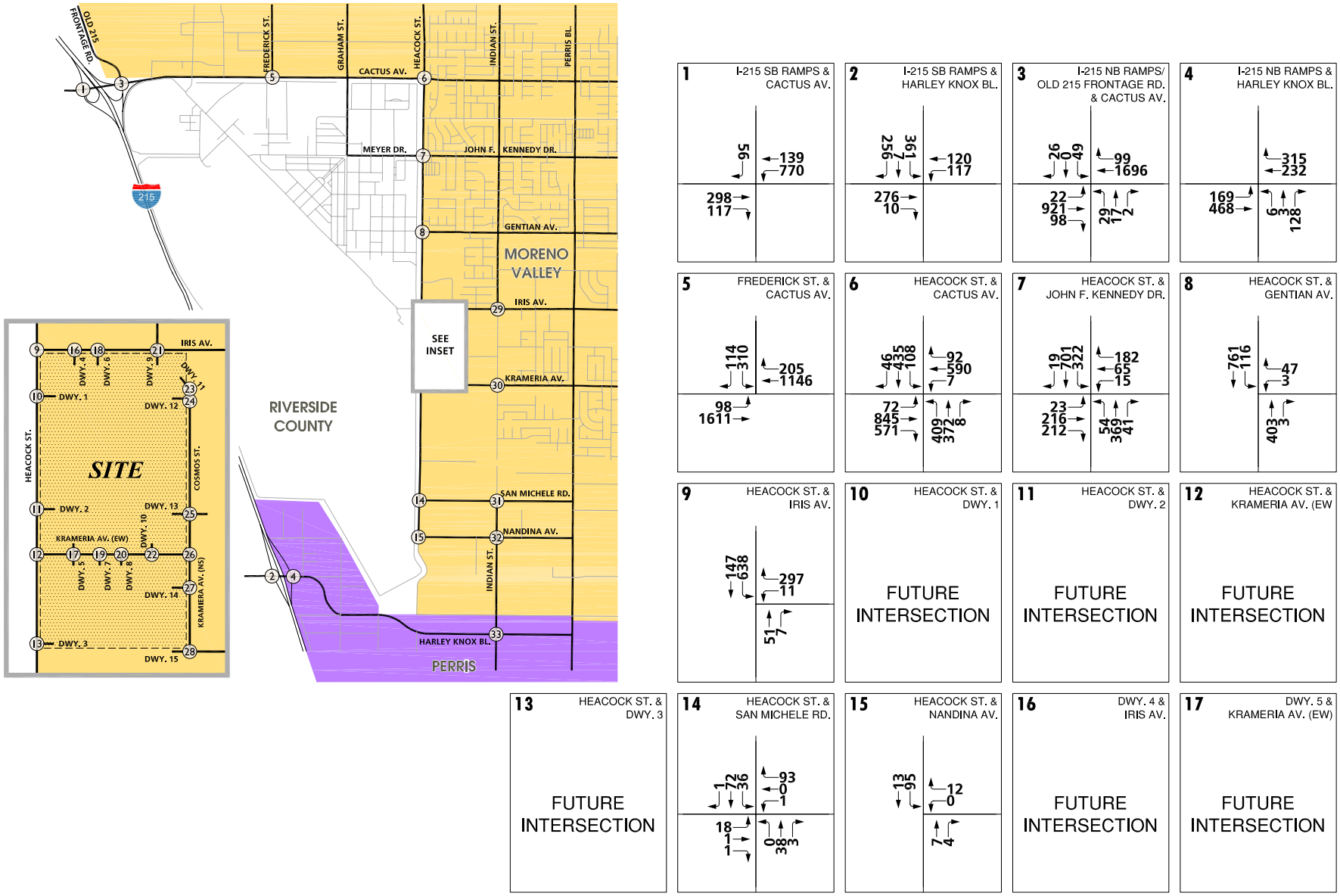




Source: Urban Crossroads (11-03-11)

FIGURE 4.11-28B

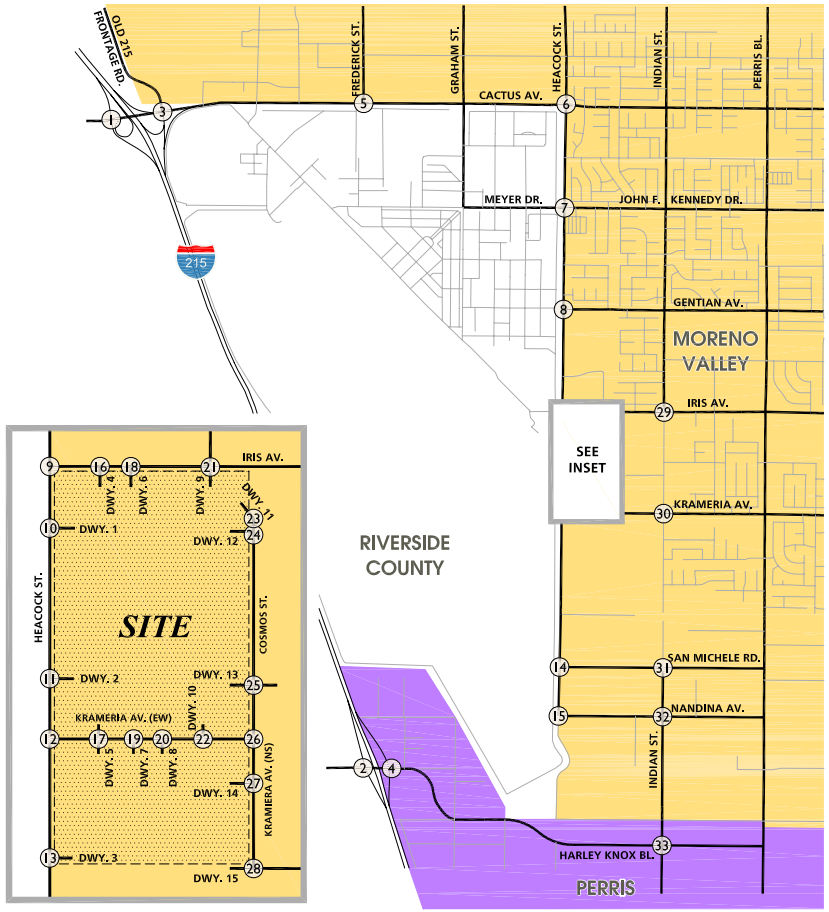
Opening Year (2016) Without Project (E+A) AM Peak Hour Intersection Volumes (2 of 2)

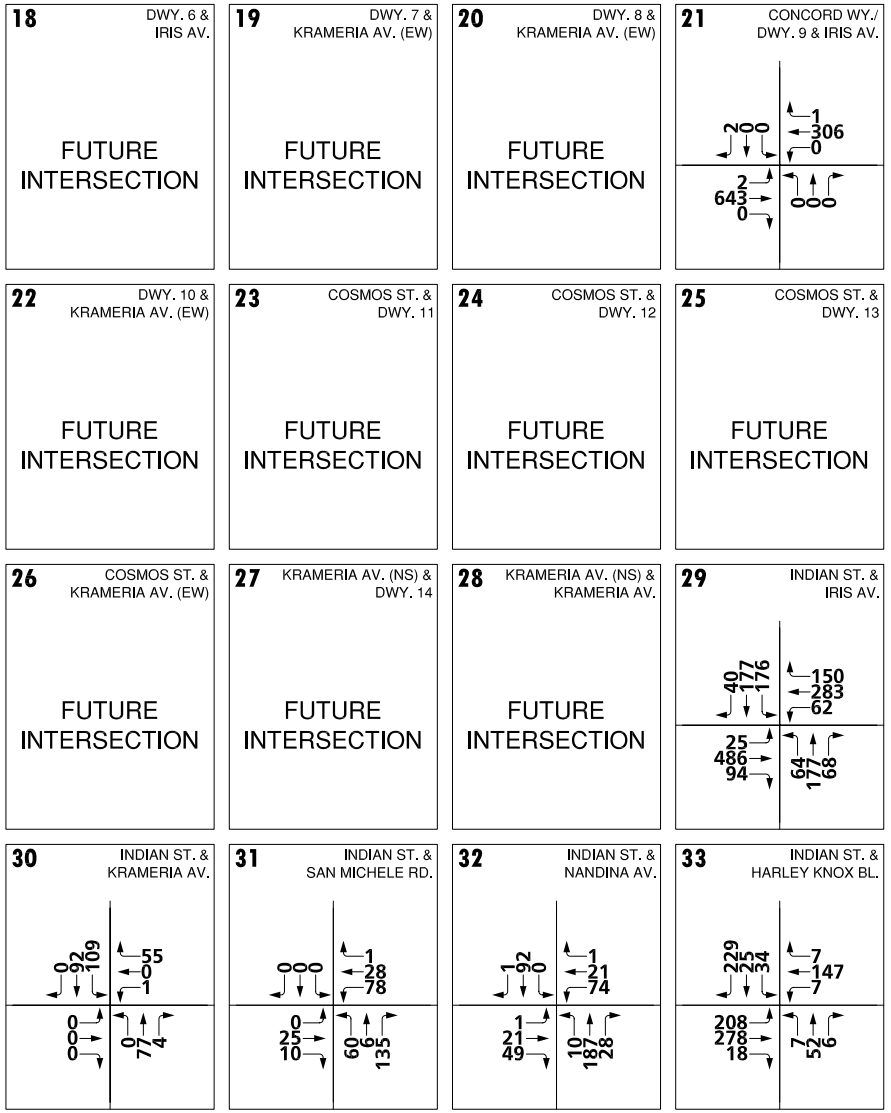


Source: Urban Crossroads (11-03-11)

FIGURE 4.11-29A

Opening Year (2016) Without Project (E+A) PM Peak Hour Intersection Volumes (1 of 2)



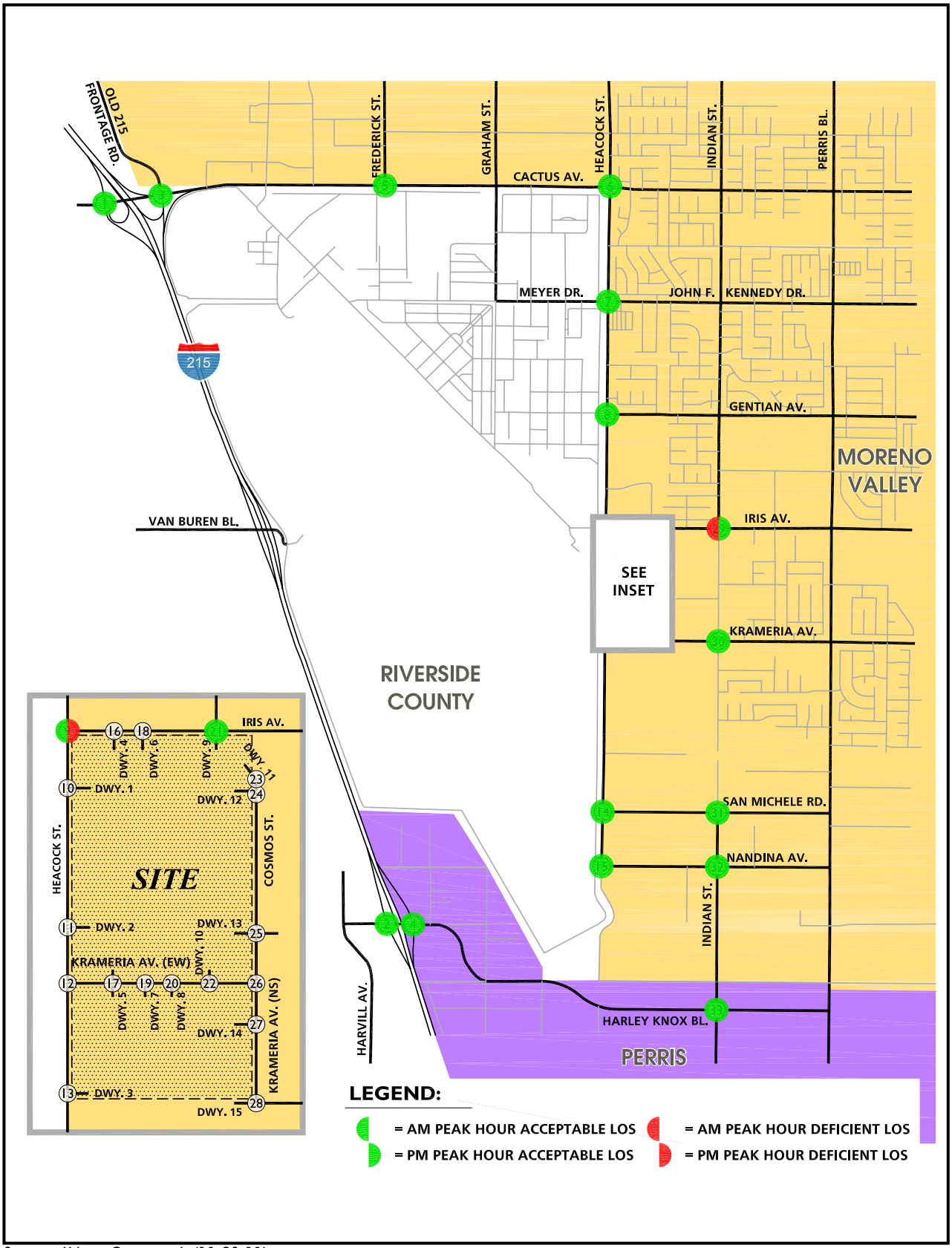


-700-

Source: Urban Crossroads (11-03-11)

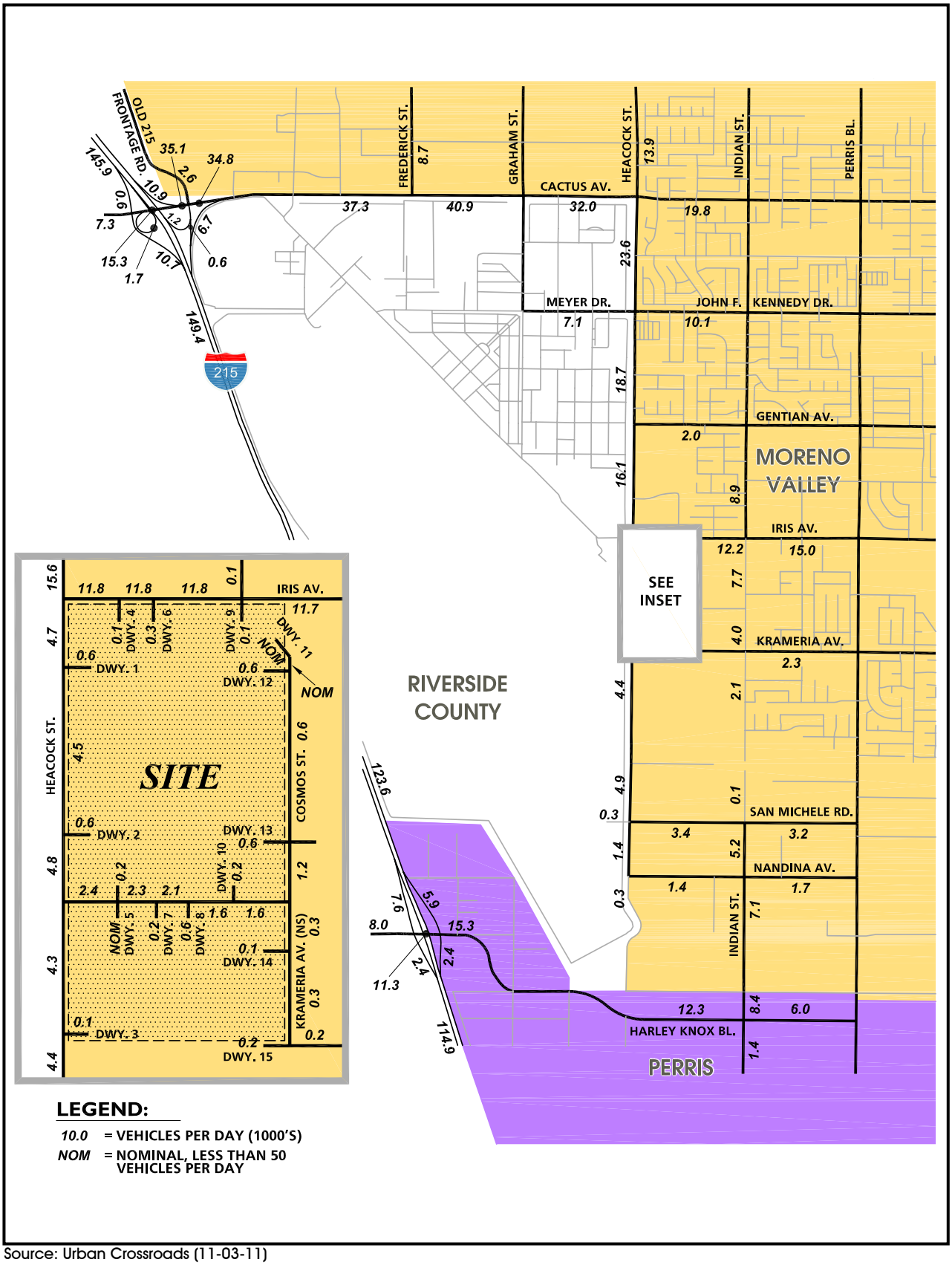
FIGURE 4.11-29B

Opening Year (2016) Without Project (E+A) PM Peak Hour Intersection Volumes (2 of 2)



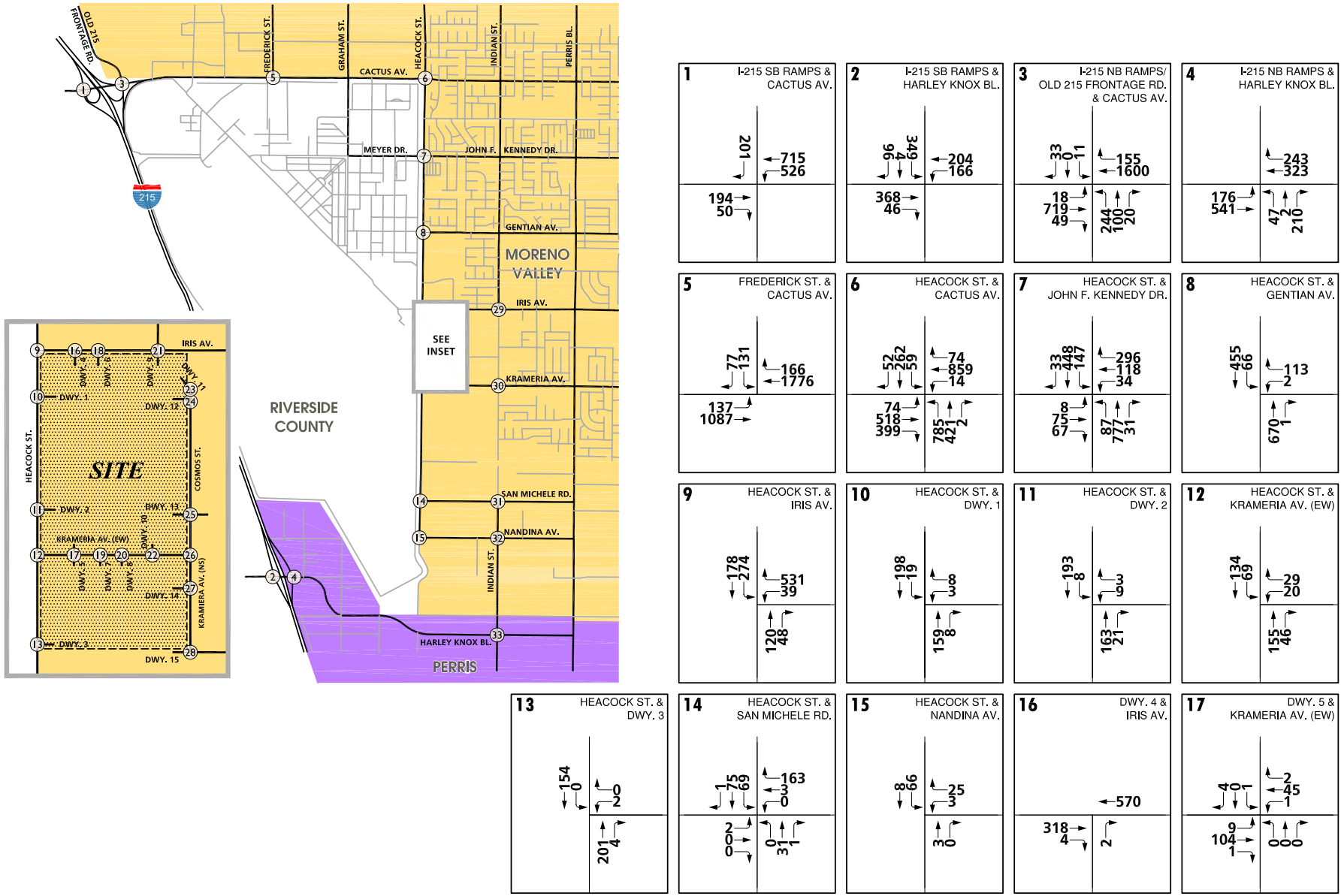
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-30
Opening Year (2016) Without Project (E+A)
Peak Hour Intersection Level of Service (LOS)



Source: Urban Crossroads (11-03-11)

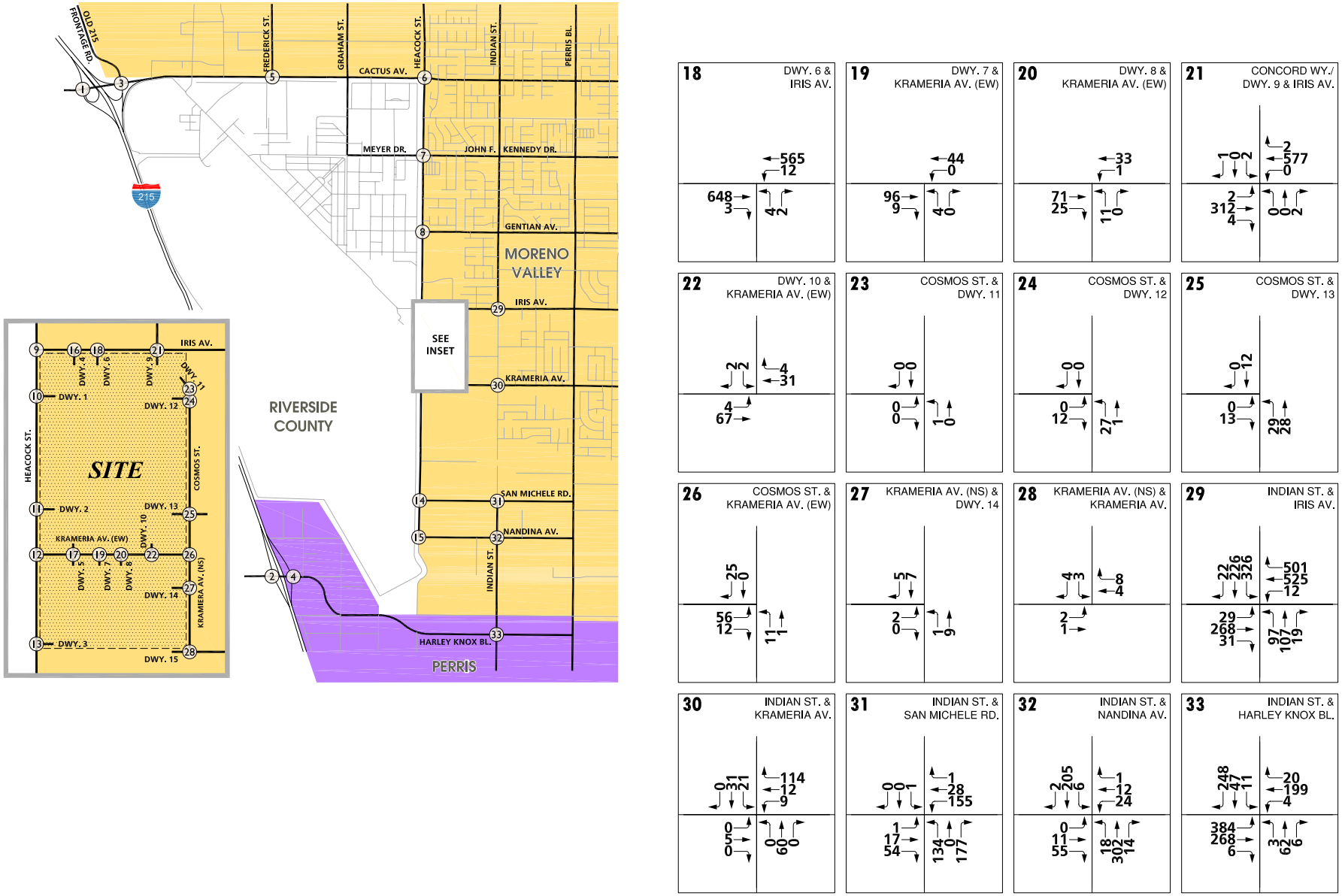
FIGURE 4.11-31
Opening Year (2016) With Project (E+A+P) Average Daily Traffic ((ADT)



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-32A

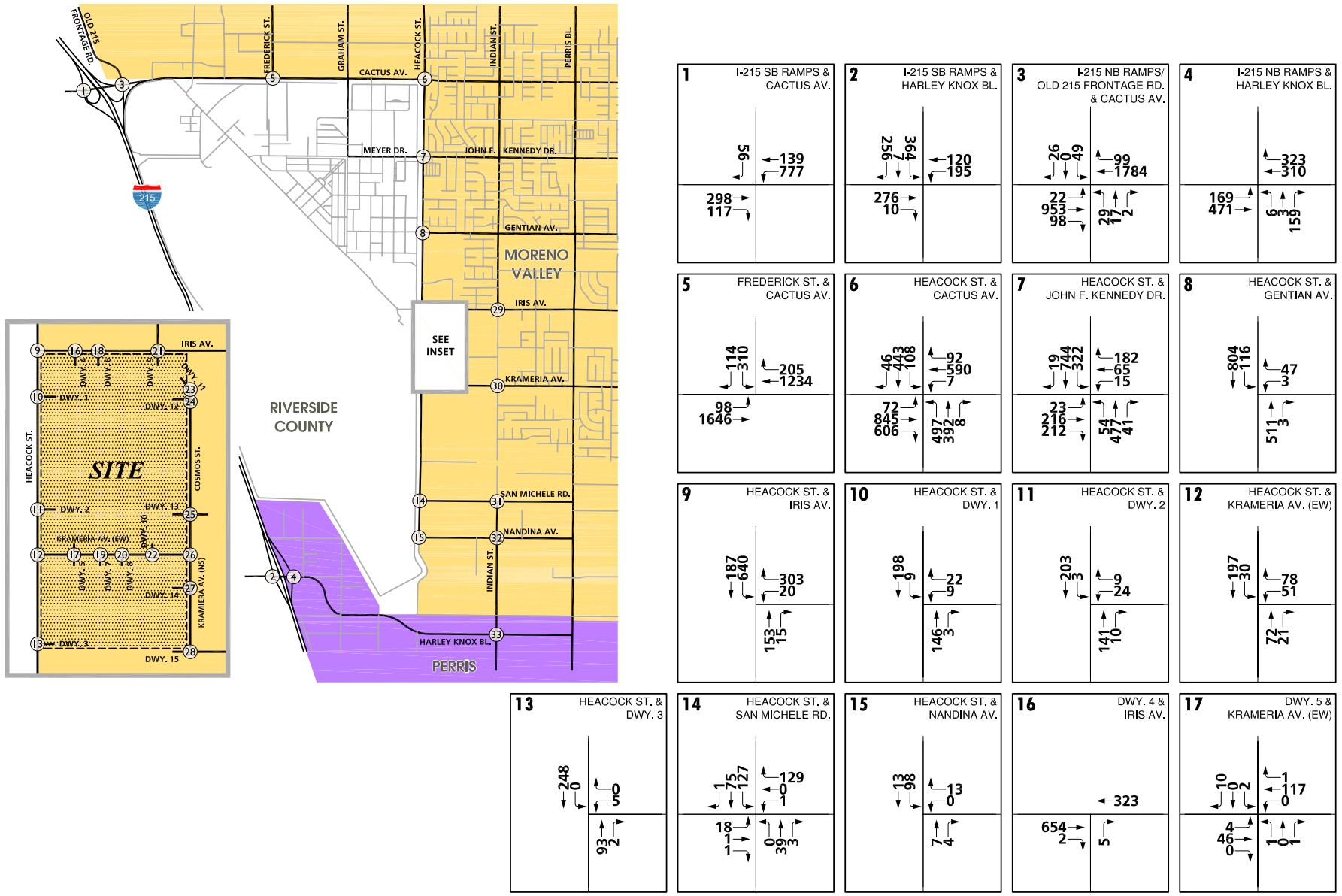
Opening Year (2016) With Project (E+A+P) AM Peak Hour Intersection Volumes (1 of 2)



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-32B

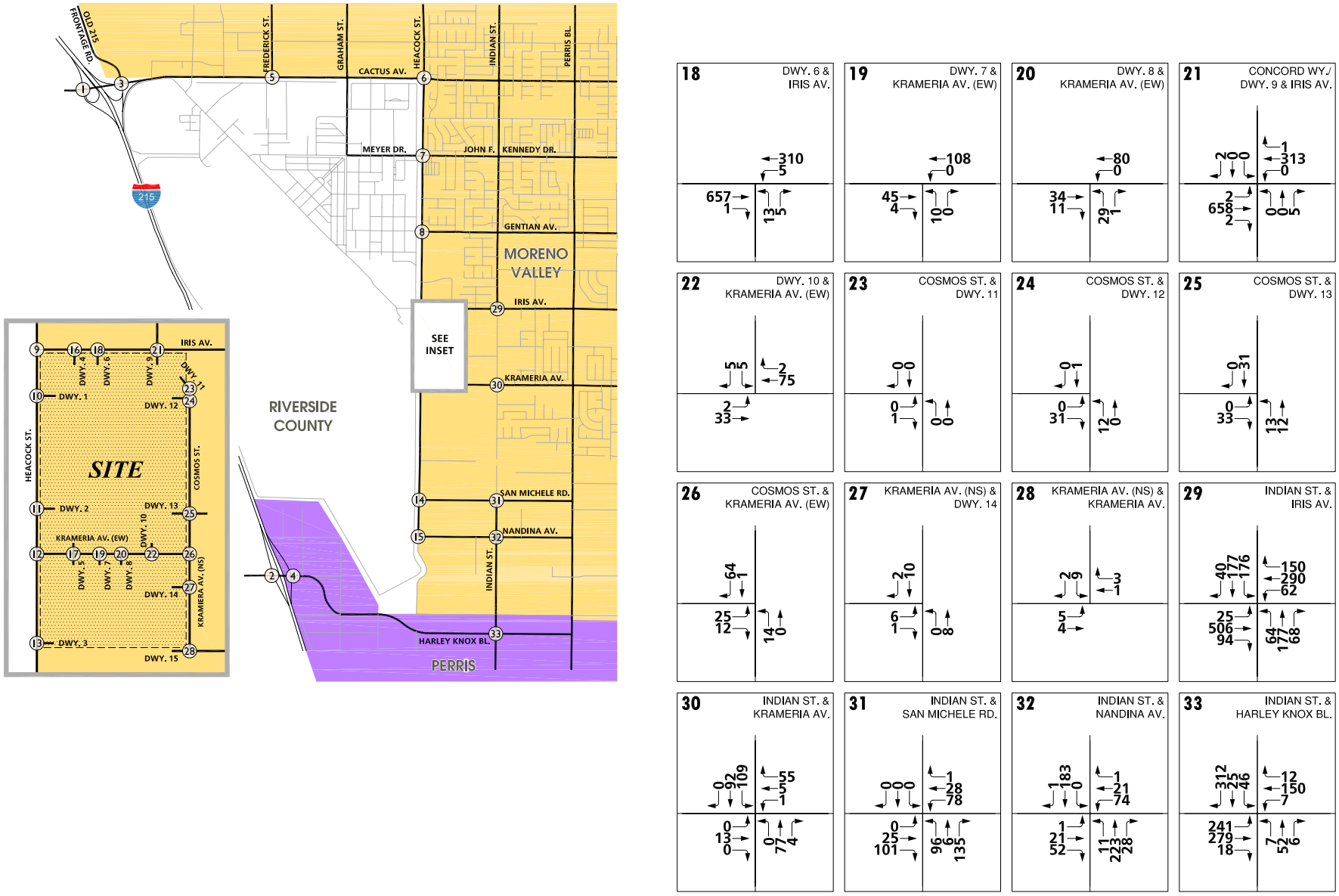
Opening Year (2016) With Project (E+A+P) AM Peak Hour Intersection Volumes (2 of 2)



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-33A

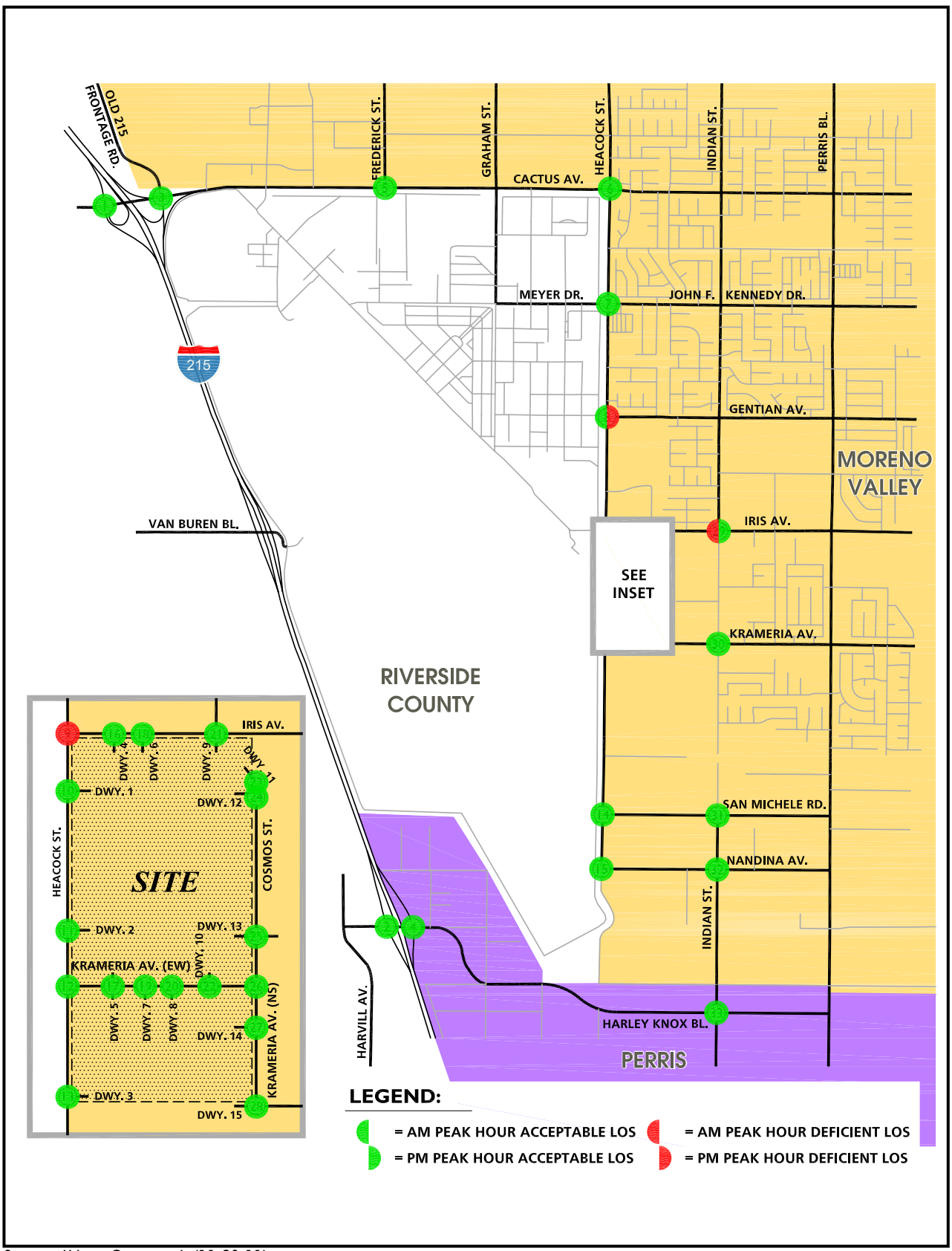
Opening Year (2016) With Project (E+A+P) PM Peak Hour Intersection Volumes (1 of 2)



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-33B

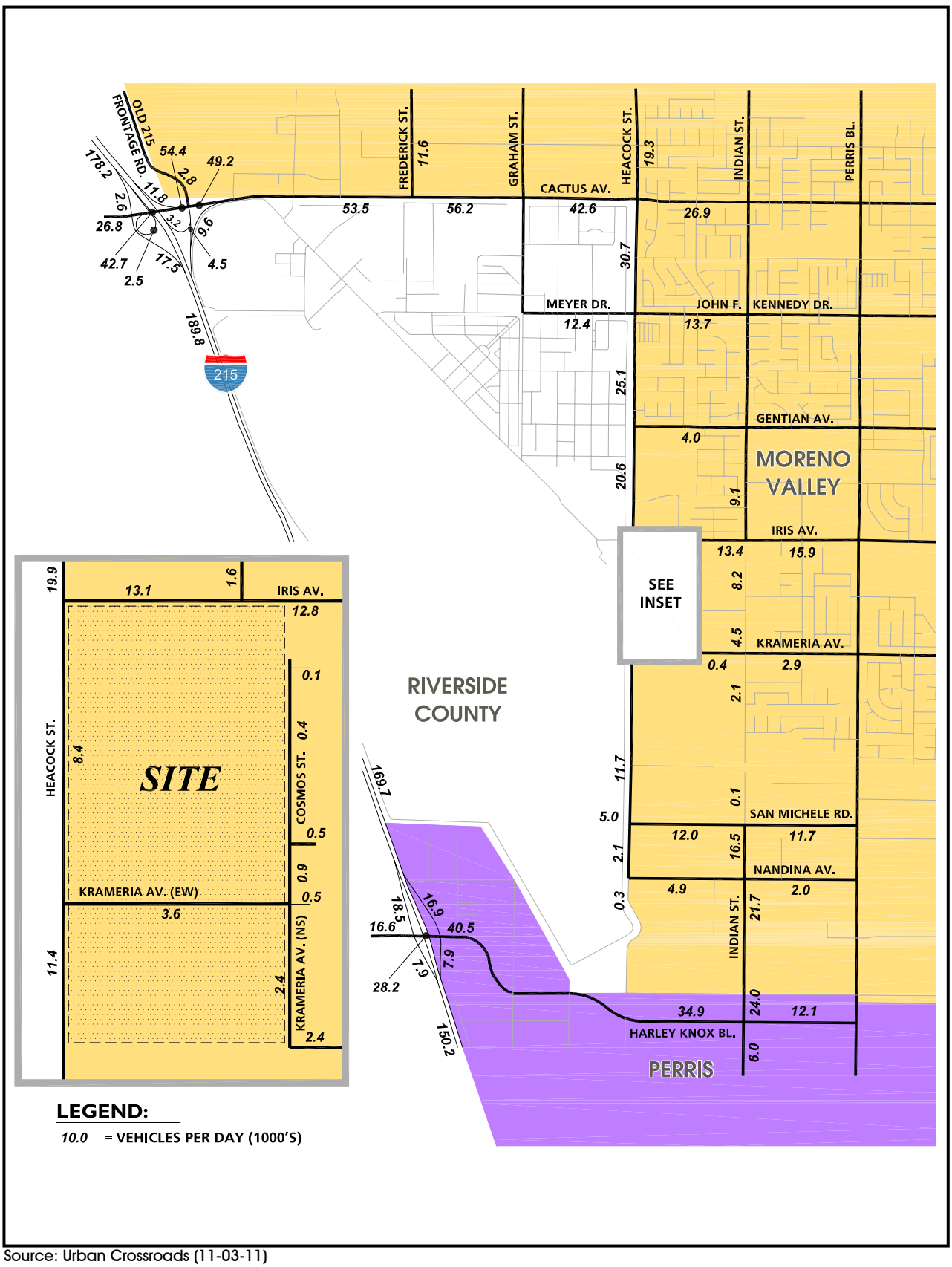
Opening Year (2016) With Project (E+A+P) PM Peak Hour Intersection Volumes (2 of 2)



Source: Urban Crossroads (11-03-11)

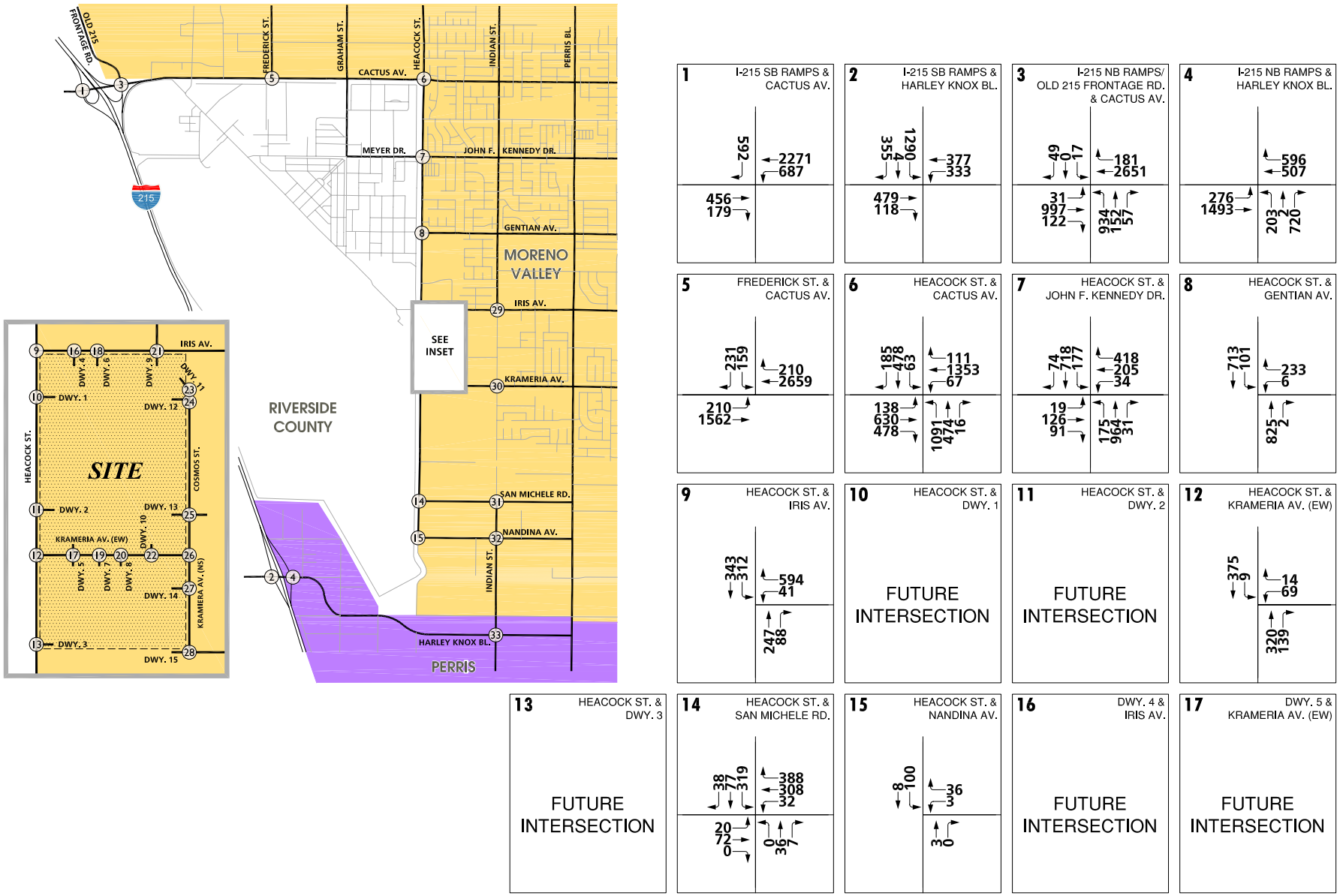
FIGURE 4.11-34

Opening Year (2016) With Project (E+A+P)
Peak Hour Intersection Level of Service (LOS)



Source: Urban Crossroads (11-03-11)

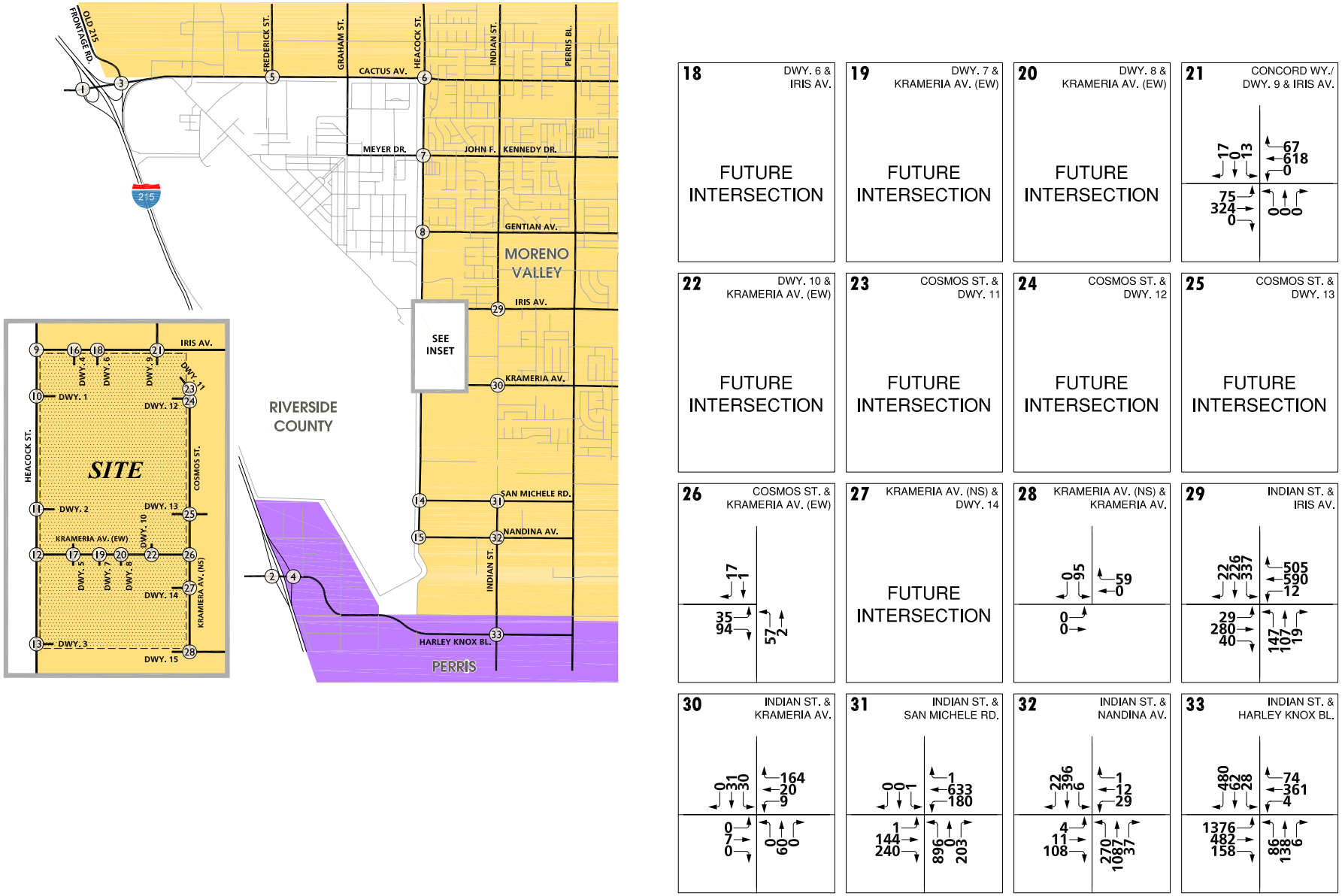
FIGURE 4.11-35
Horizon Year (2016) Without Project (E+A+C) Average Daily Traffic (ADT)



Source: Urban Crossroads (11-03-11)

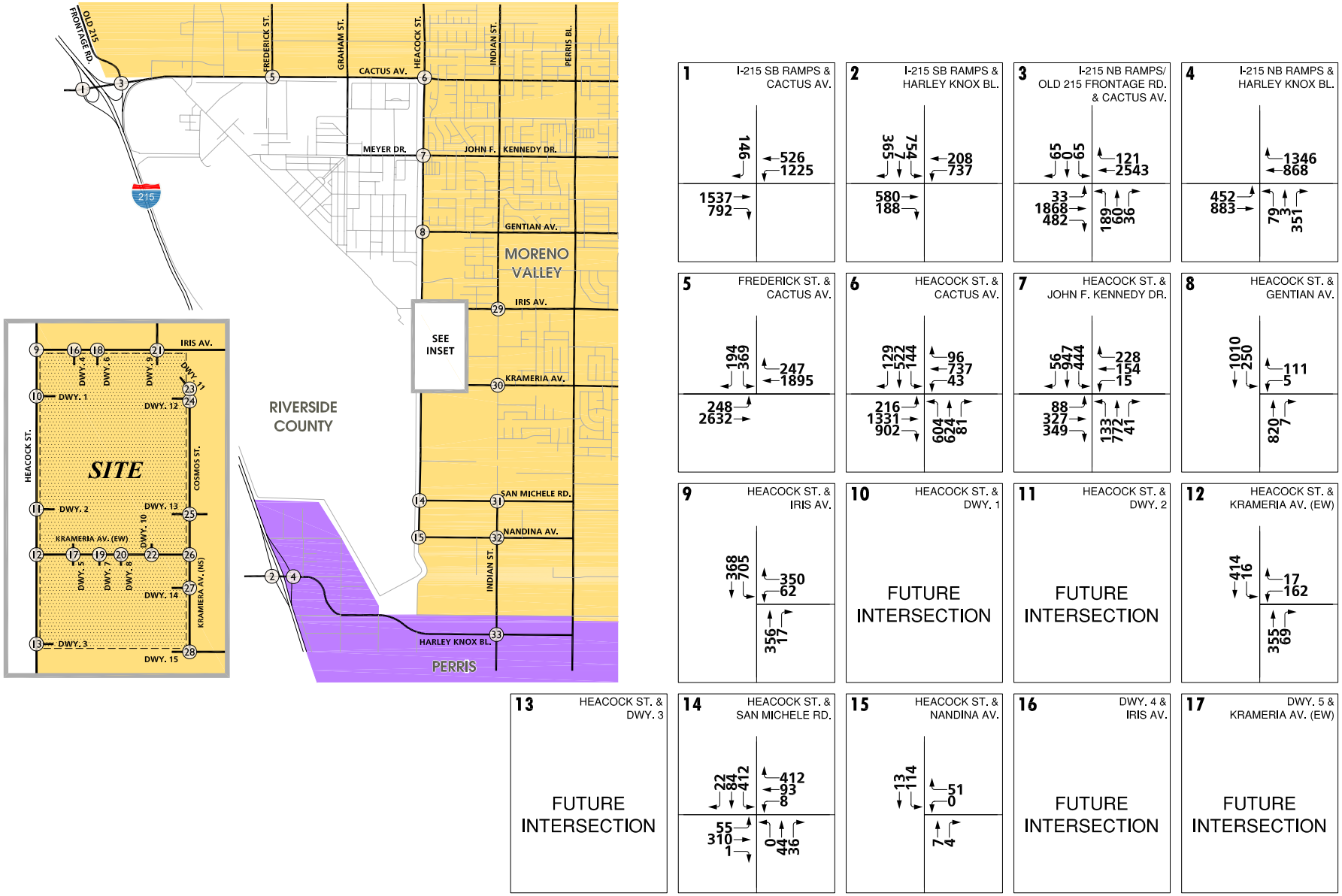
FIGURE 4.11-36A

Horizon Year (2016) Without Project (E+A+C) AM Peak Hour Intersection Volume (1 of 2)



Source: Urban Crossroads (11-03-11)

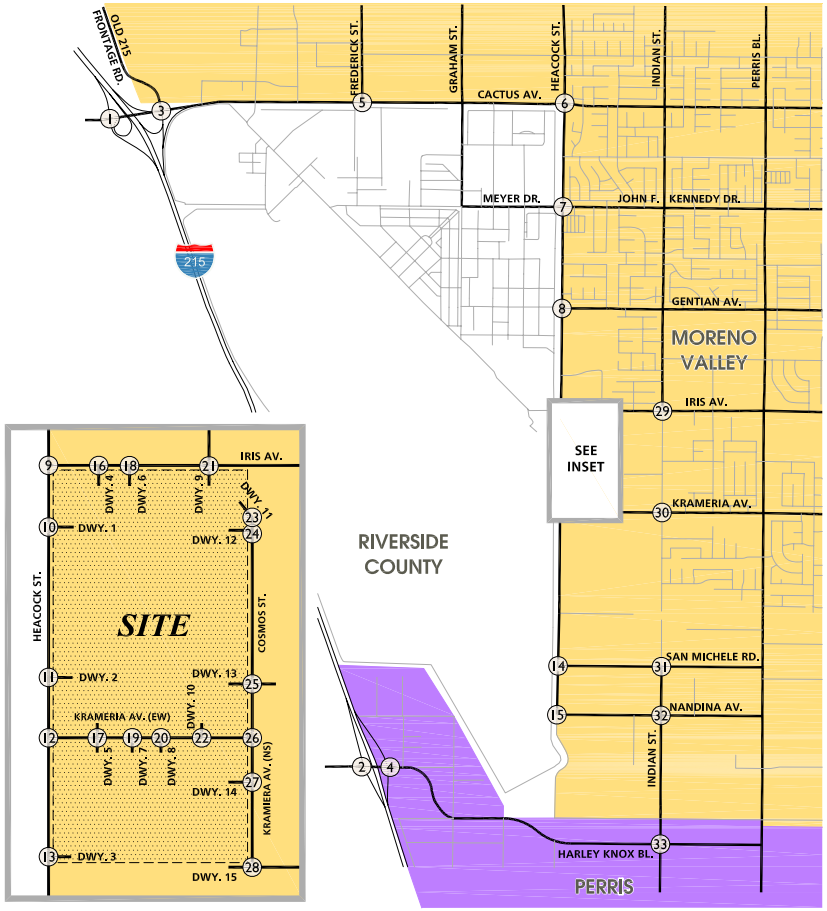
FIGURE 4.11-36B
Horizon Year (2016) Without Project (E+A+C) AM Peak Hour Intersection Volumes (2 of 2)

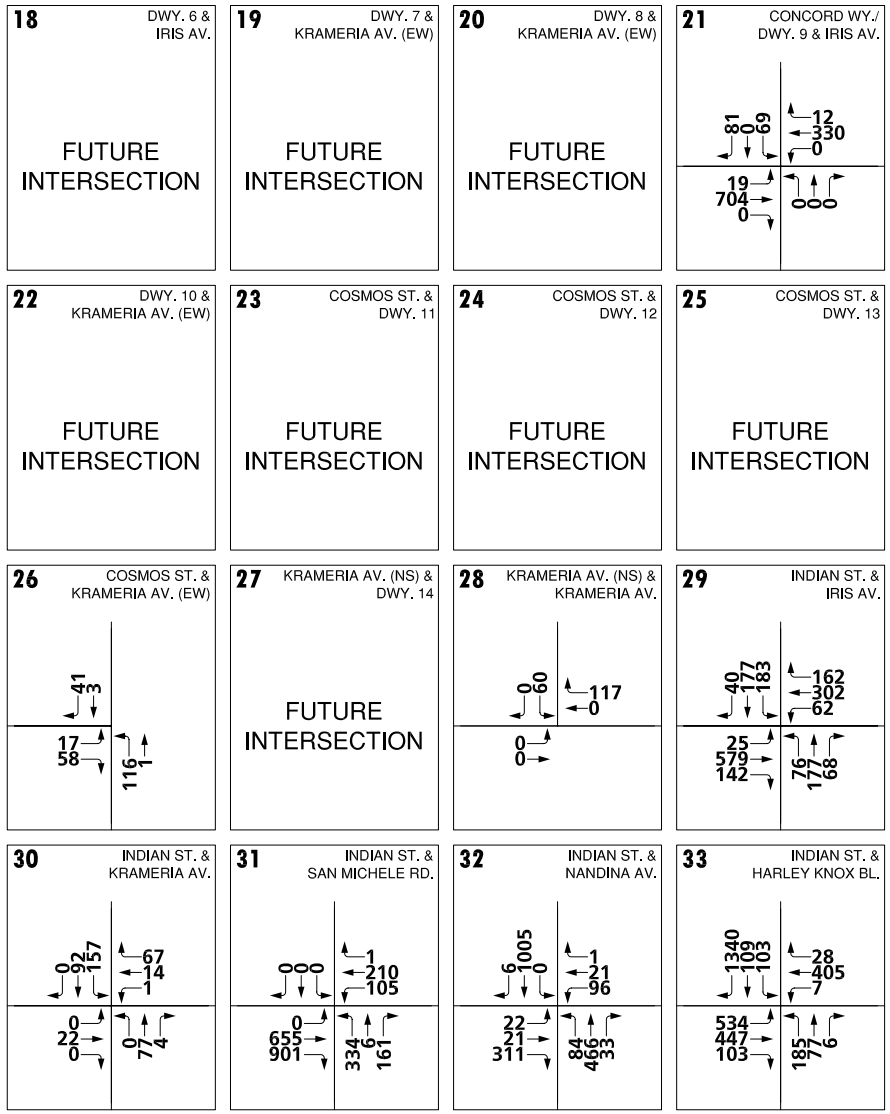


Source: Urban Crossroads (11-03-11)

FIGURE 4.11-37A

Horizon Year (2016) Without Project (E+A+C) PM Peak Hour Intersection Volumes (1 of 2)

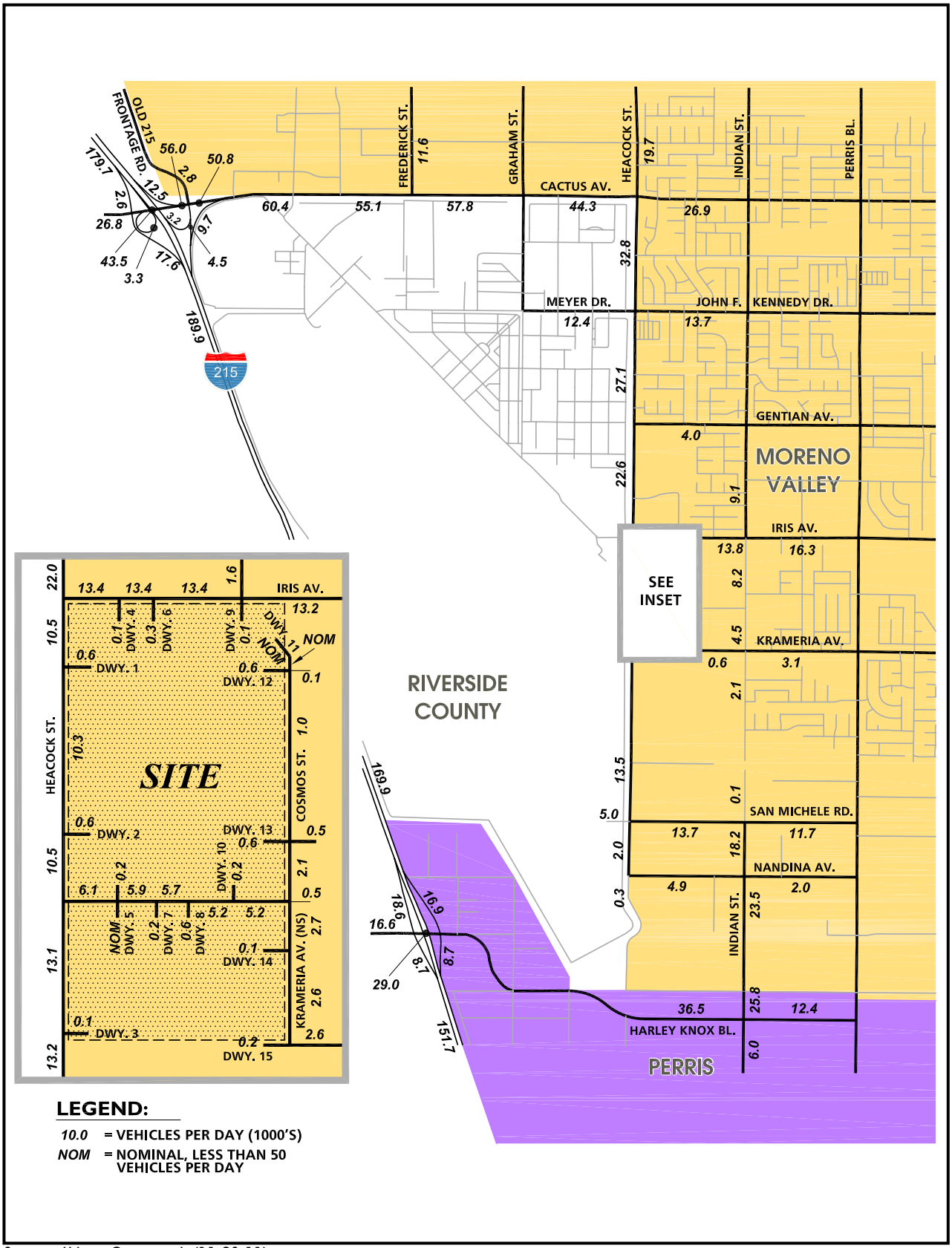




Source: Urban Crossroads (11-03-11)

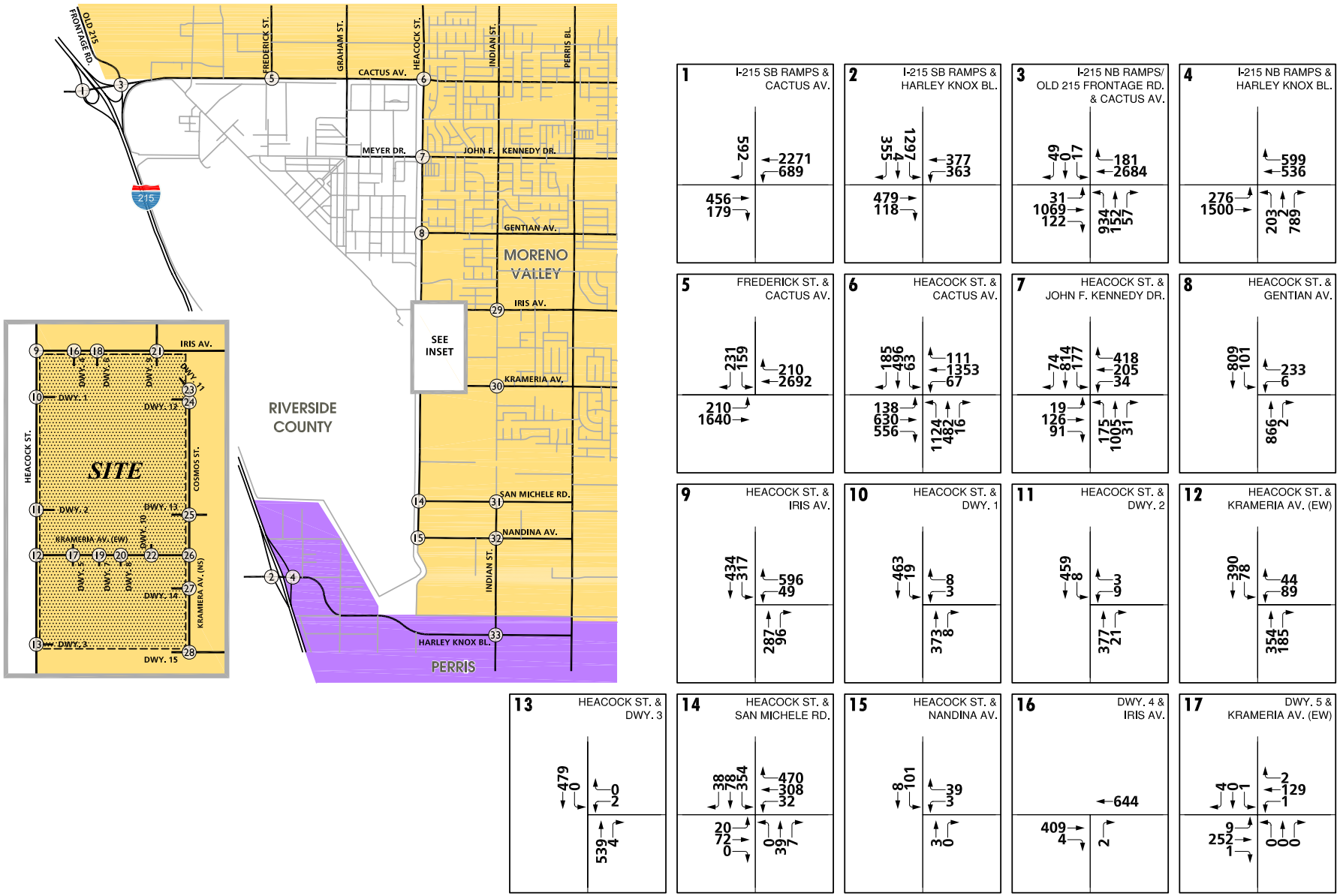
FIGURE 4.11-37B

Horizon Year (2016) Without Project (E+A+C) PM Peak Hour Intersection Volumes (2 of 2)



Source: Urban Crossroads (11-03-11)

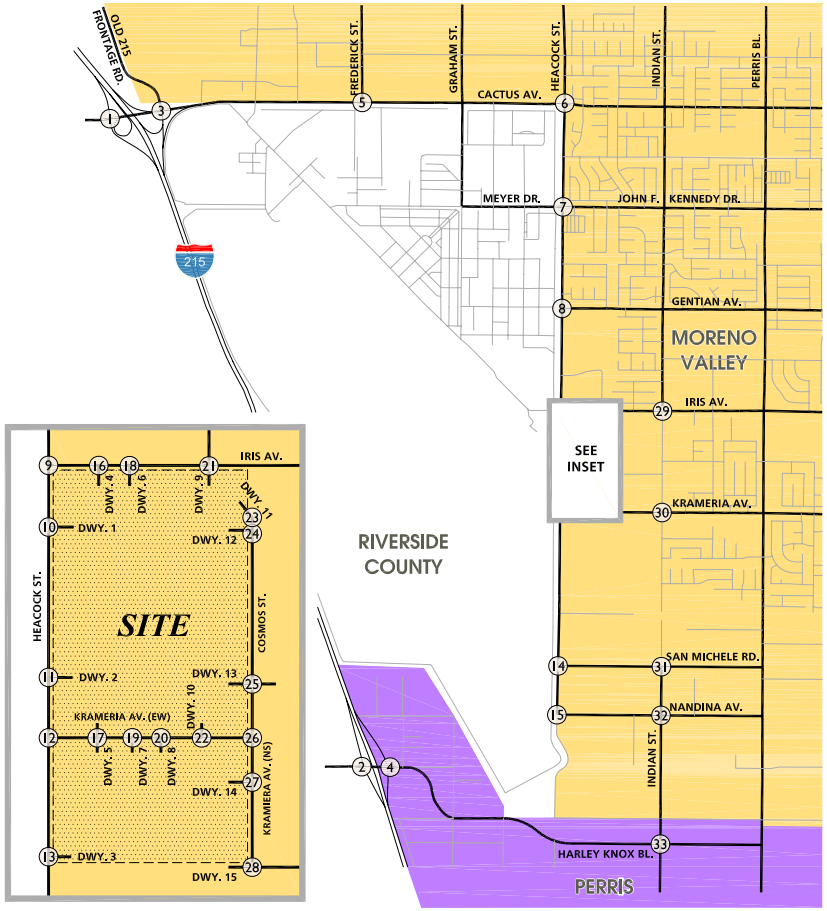
FIGURE 4.11-38
Horizon Year (2016) With Project (E+A+C+P) Average Daily Traffic (ADT)

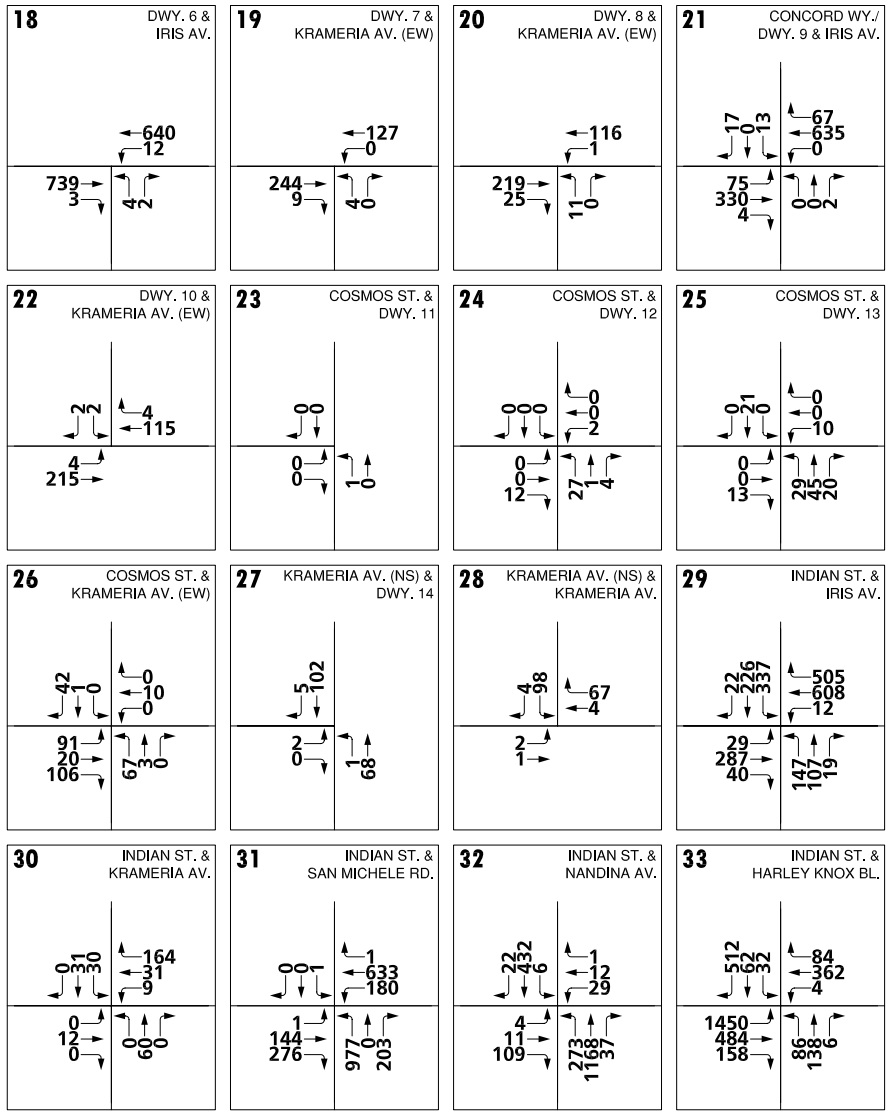


Source: Urban Crossroads (11-03-11)

FIGURE 4.11-39A

Horizon Year (2016) Without Project (E+A+C+P) AM Peak Hour Intersection Volumes (1 of 2)

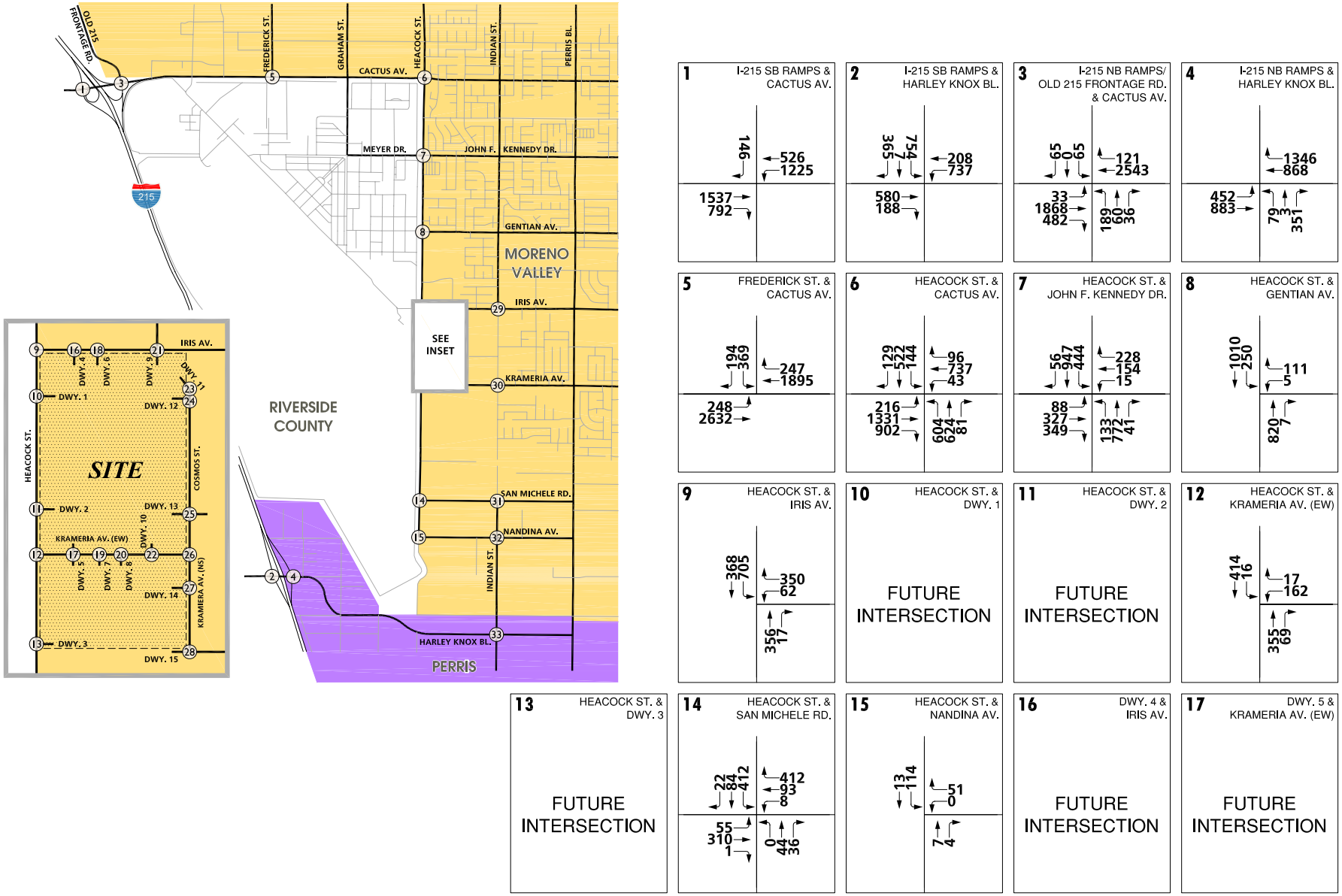




Source: Urban Crossroads (11-03-11)

FIGURE 4.11-39B

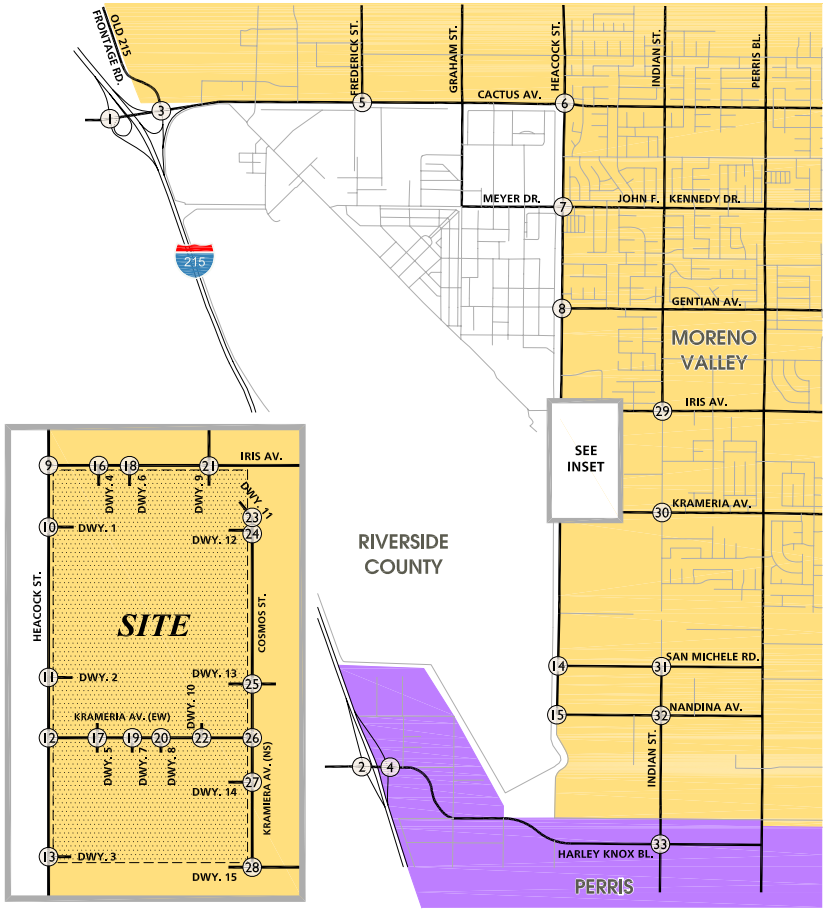
Horizon Year (2016) Without Project (E+A+C+P) AM Peak Hour Intersection Volumes (2 of 2)

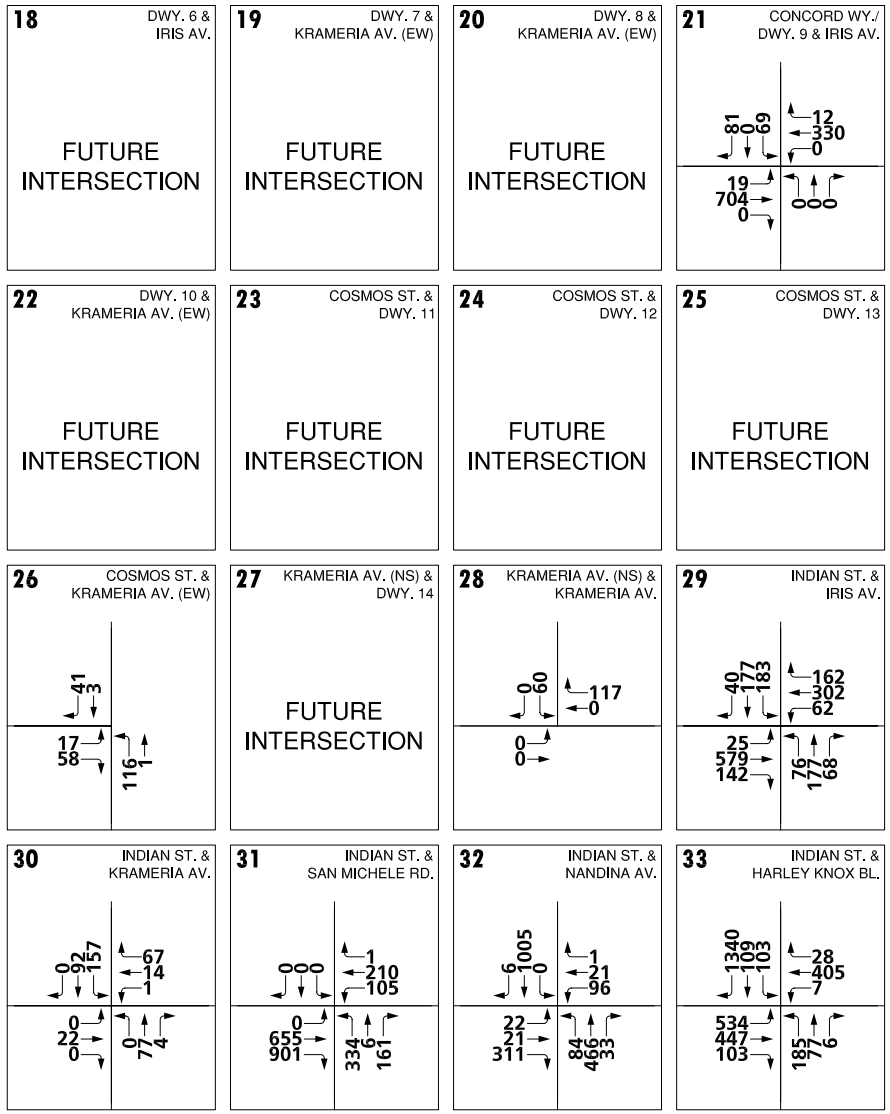


Source: Urban Crossroads (11-03-11)

FIGURE 4.11-40A

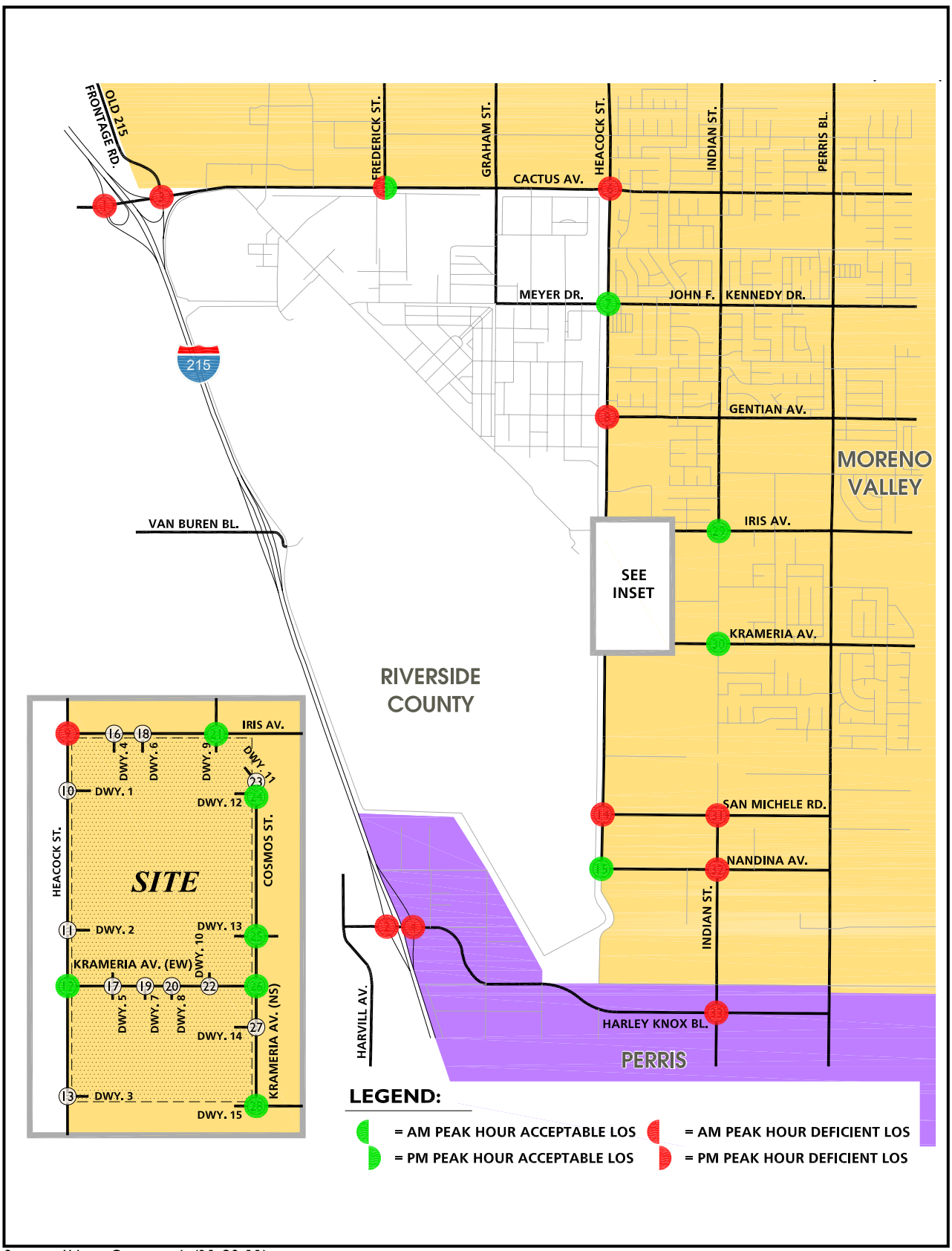
Horizon Year (2016) Without Project (E+A+C+P) PM Peak Hour Intersection Volumes (1 of 2)





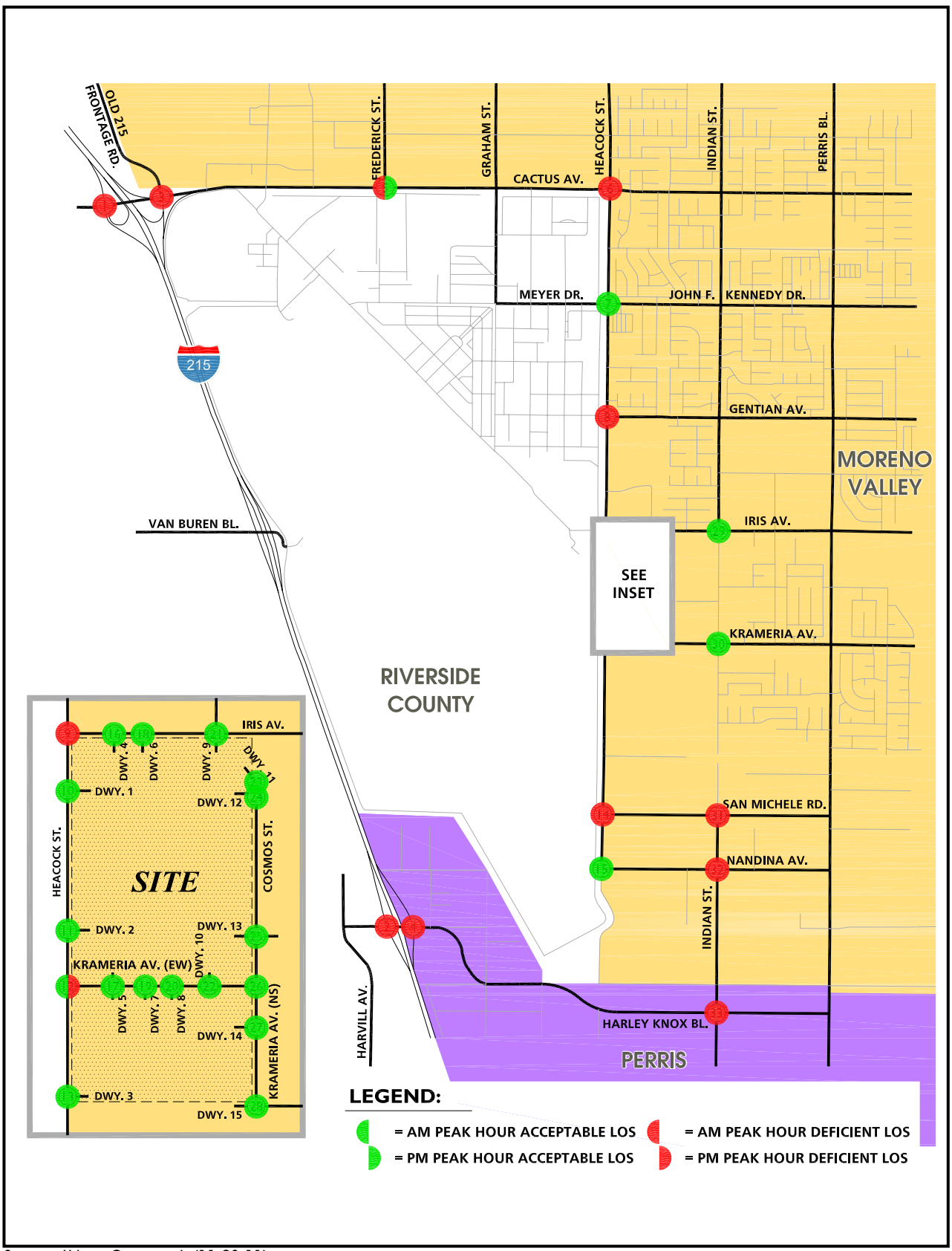
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-40B
Horizon Year (2016) Without Project (E+A+C+P) PM Peak Hour Intersection Volumes (2 of 2)



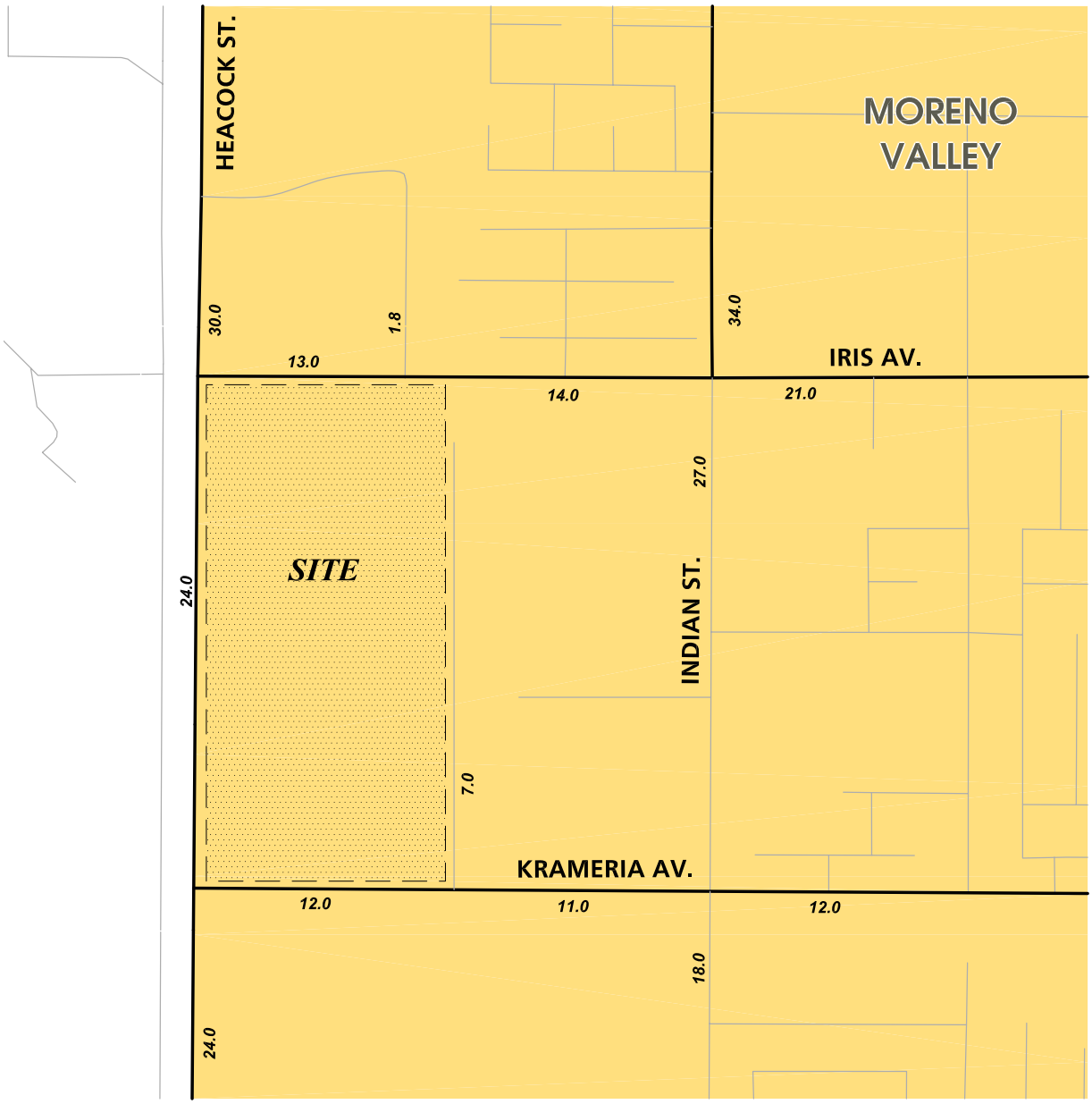
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-41
Horizon Year (2016) Without Project (E+A+C)
Peak Hour Intersection Level of Service (LOS)



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-42
Horizon Year (2016) With Project (E+A+C+P)
Peak Hour Intersection Level of Service (LOS)

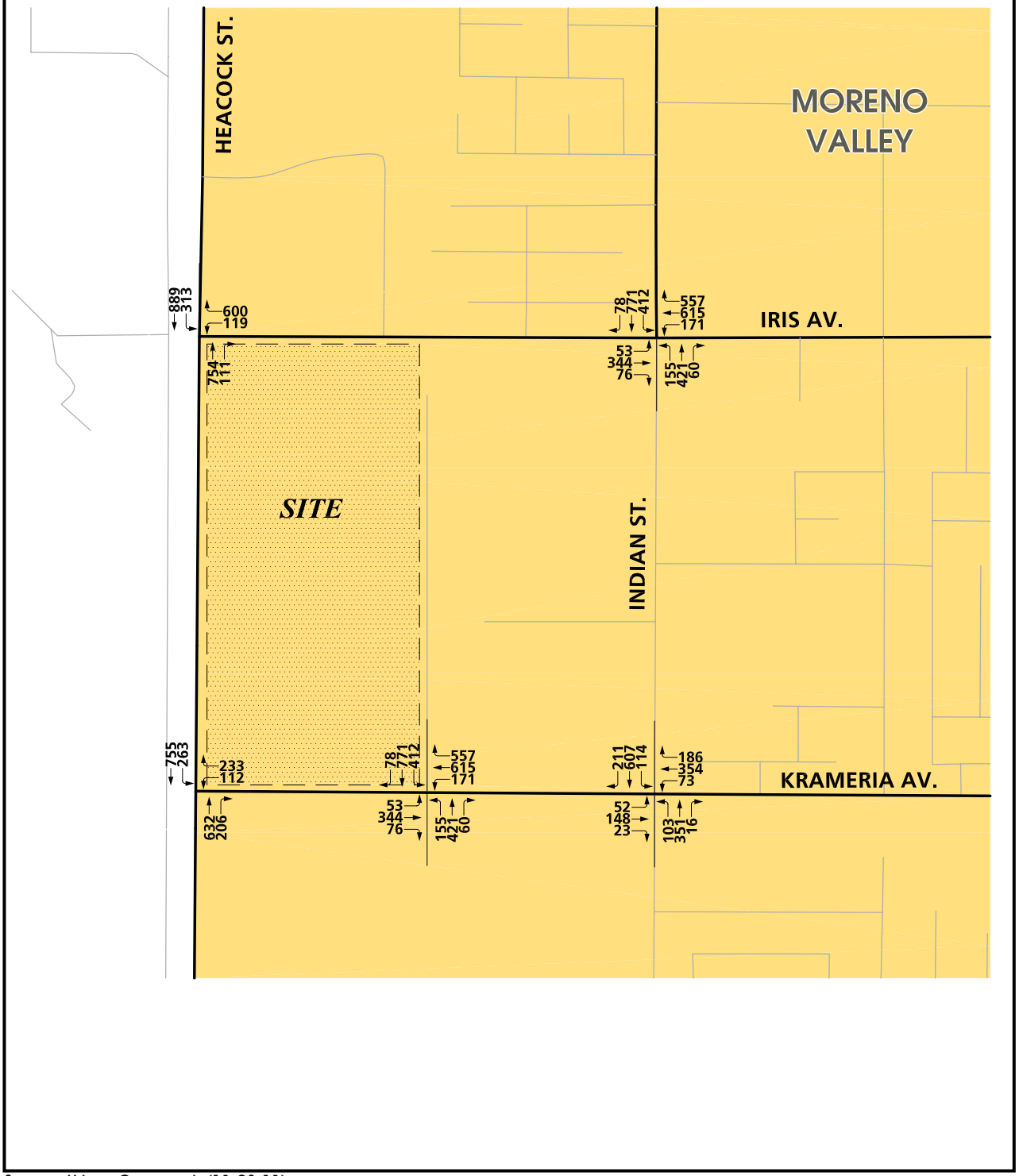


LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

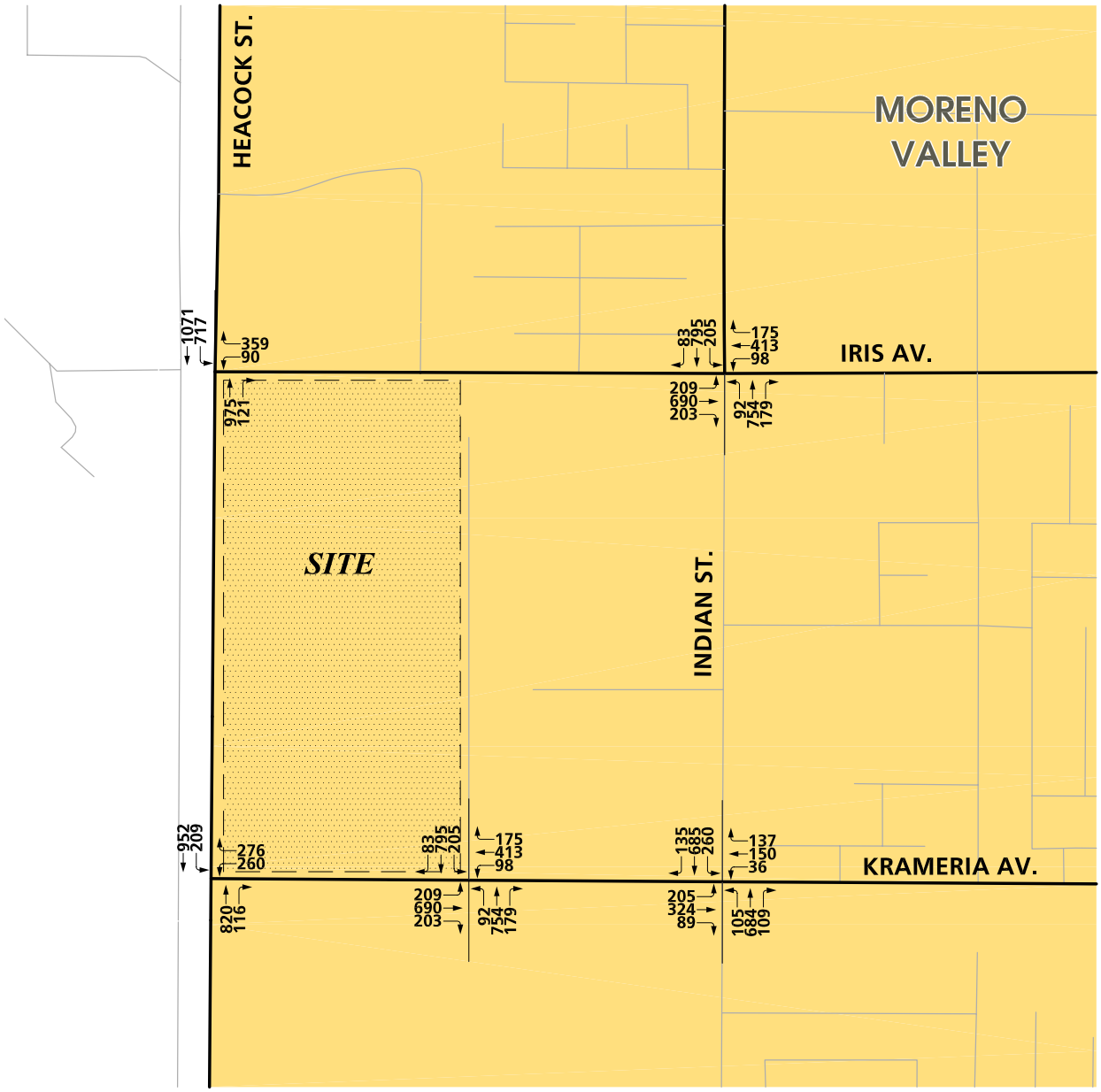
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-43
General Plan Buildout Without Project Average Daily Traffic (ADT)



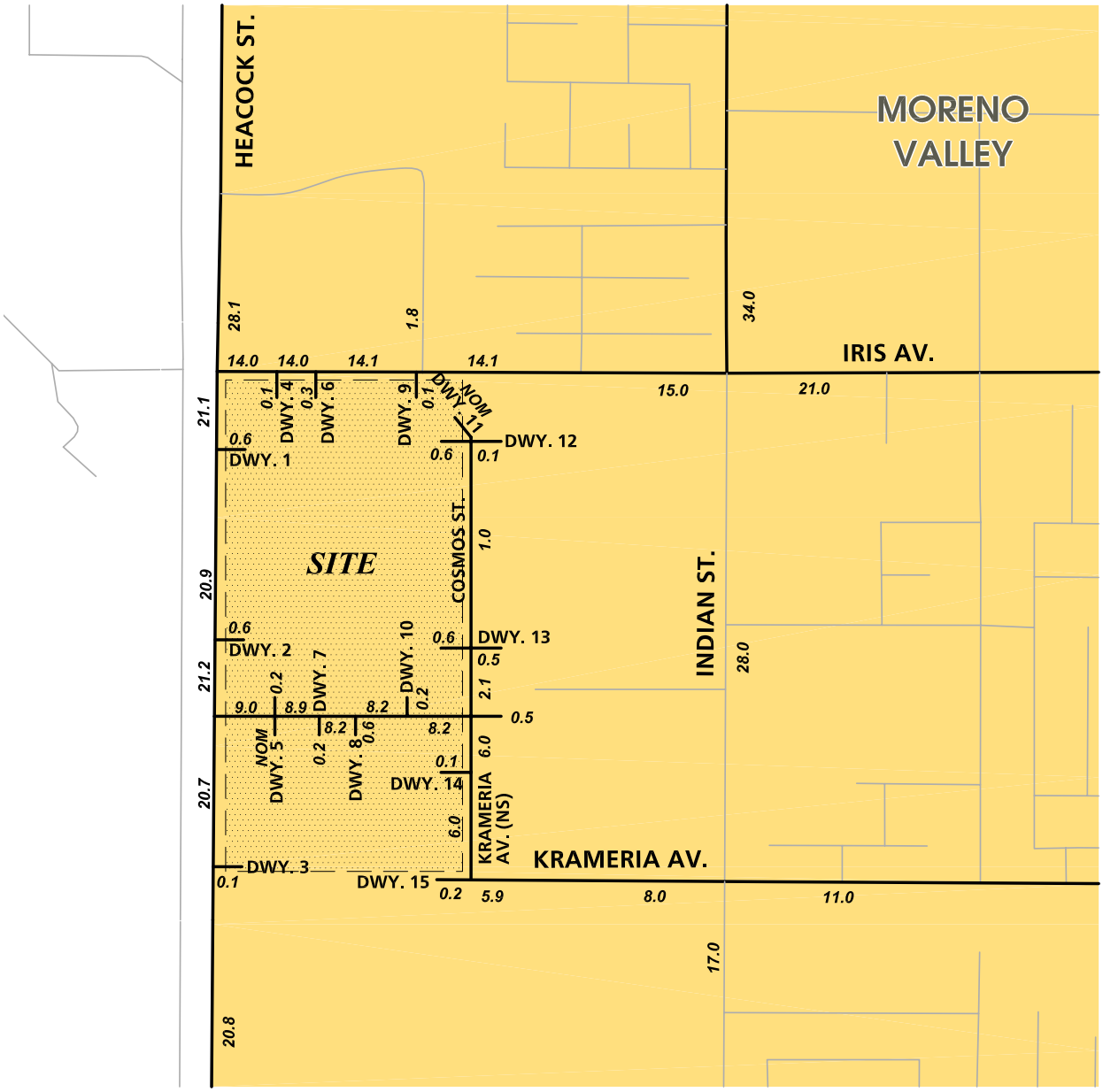
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-44
General Plan Buildout Without Project AM Peak Hour Intersection Volumes



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-45
General Plan Buildout Withour Project PM Peak Hour Intersection Volumes

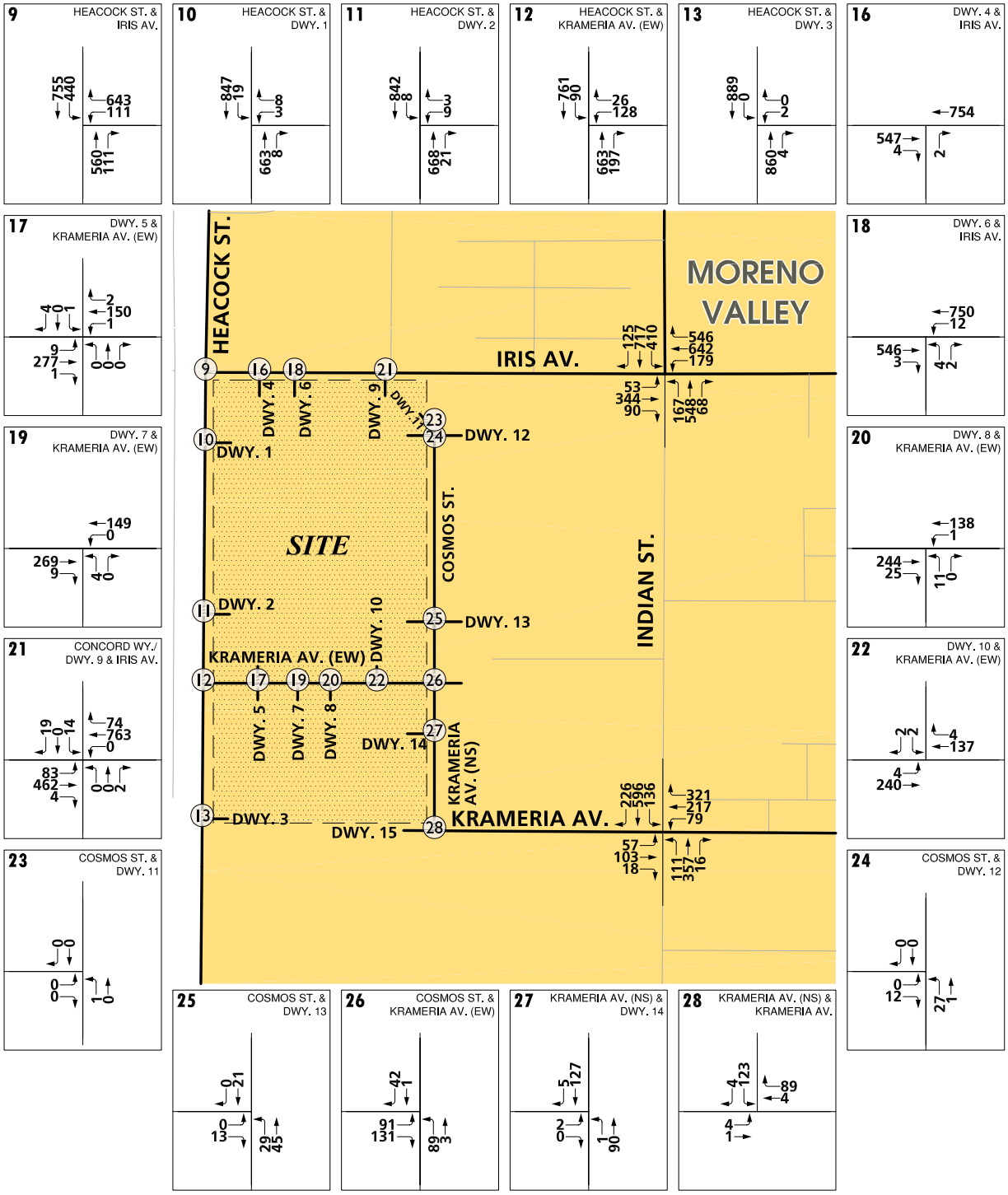


LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

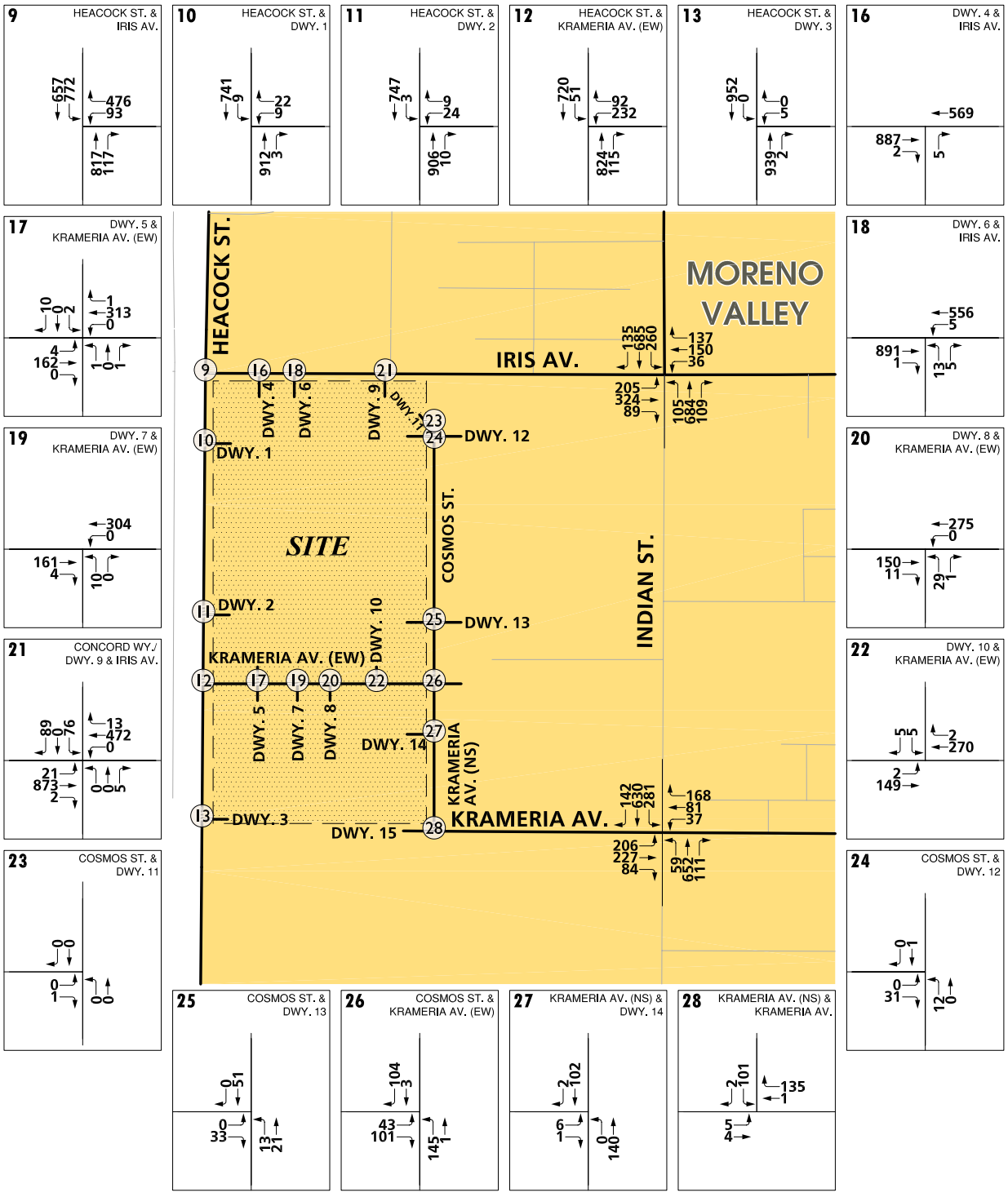
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-46
General Plan Buildout With Project Average Daily Traffic (ADT)



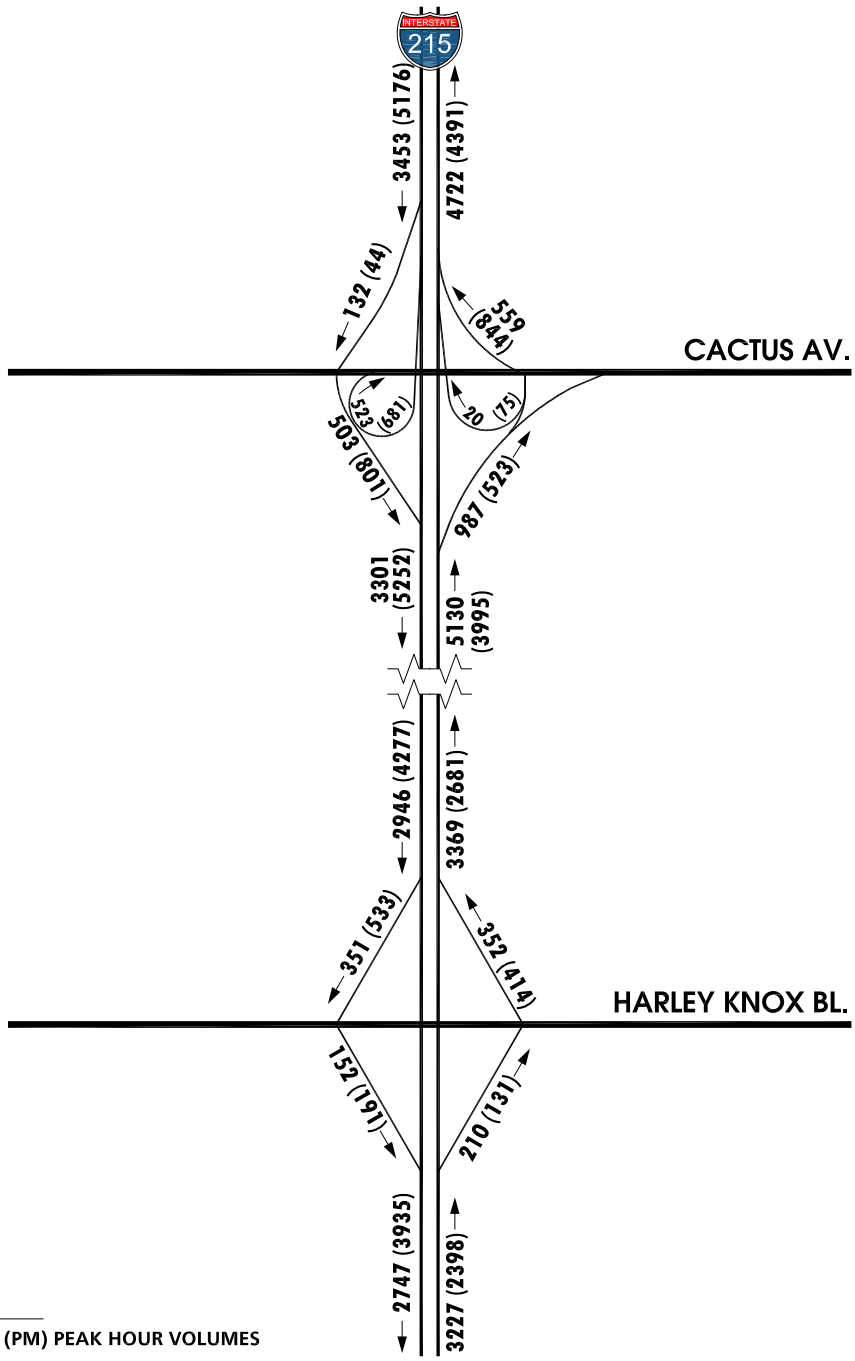
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-47
General Plan Buildout With Project AM Peak Hour Intersection Volumes



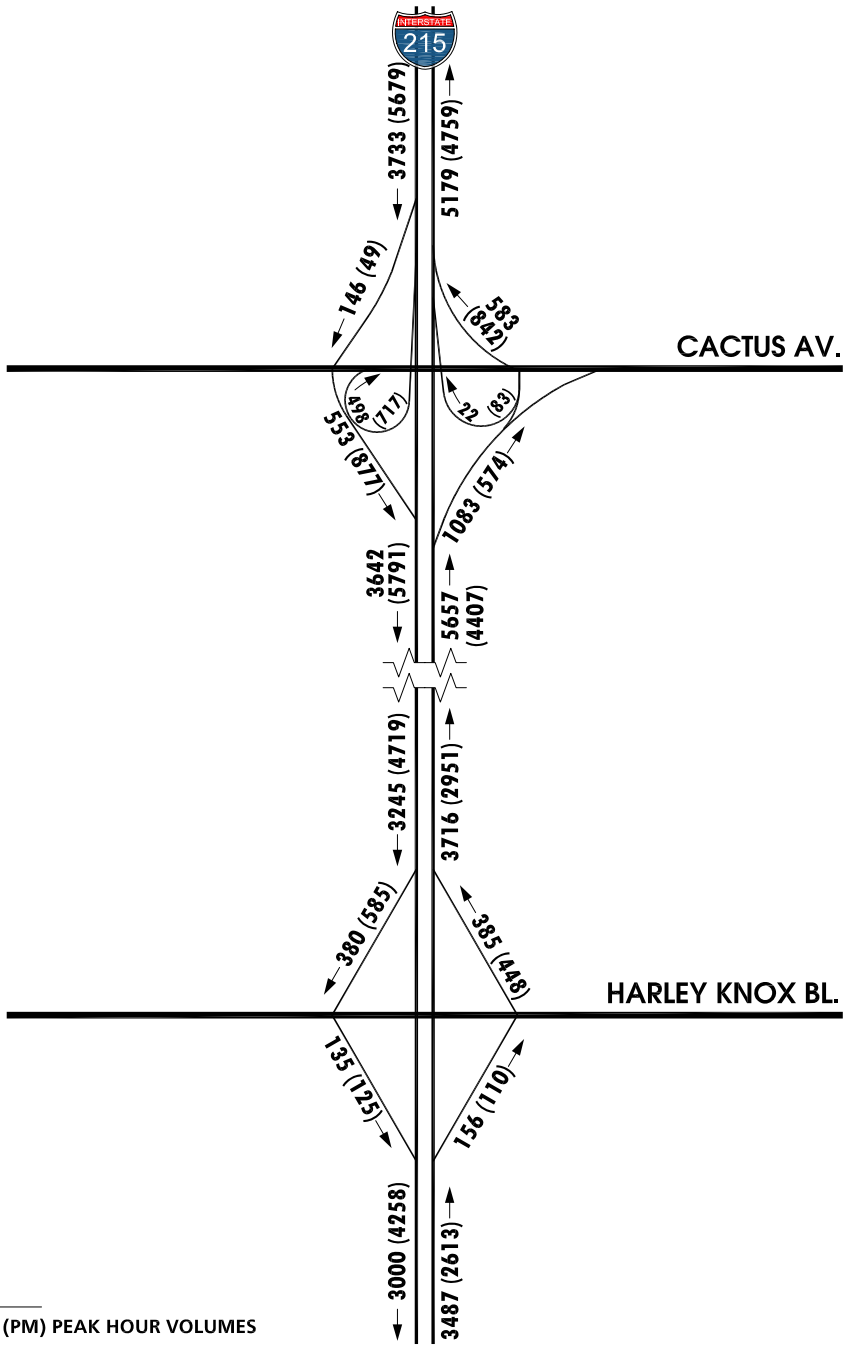
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-48
General Plan Buildout With Project PM Peak Hour Intersection Volumes



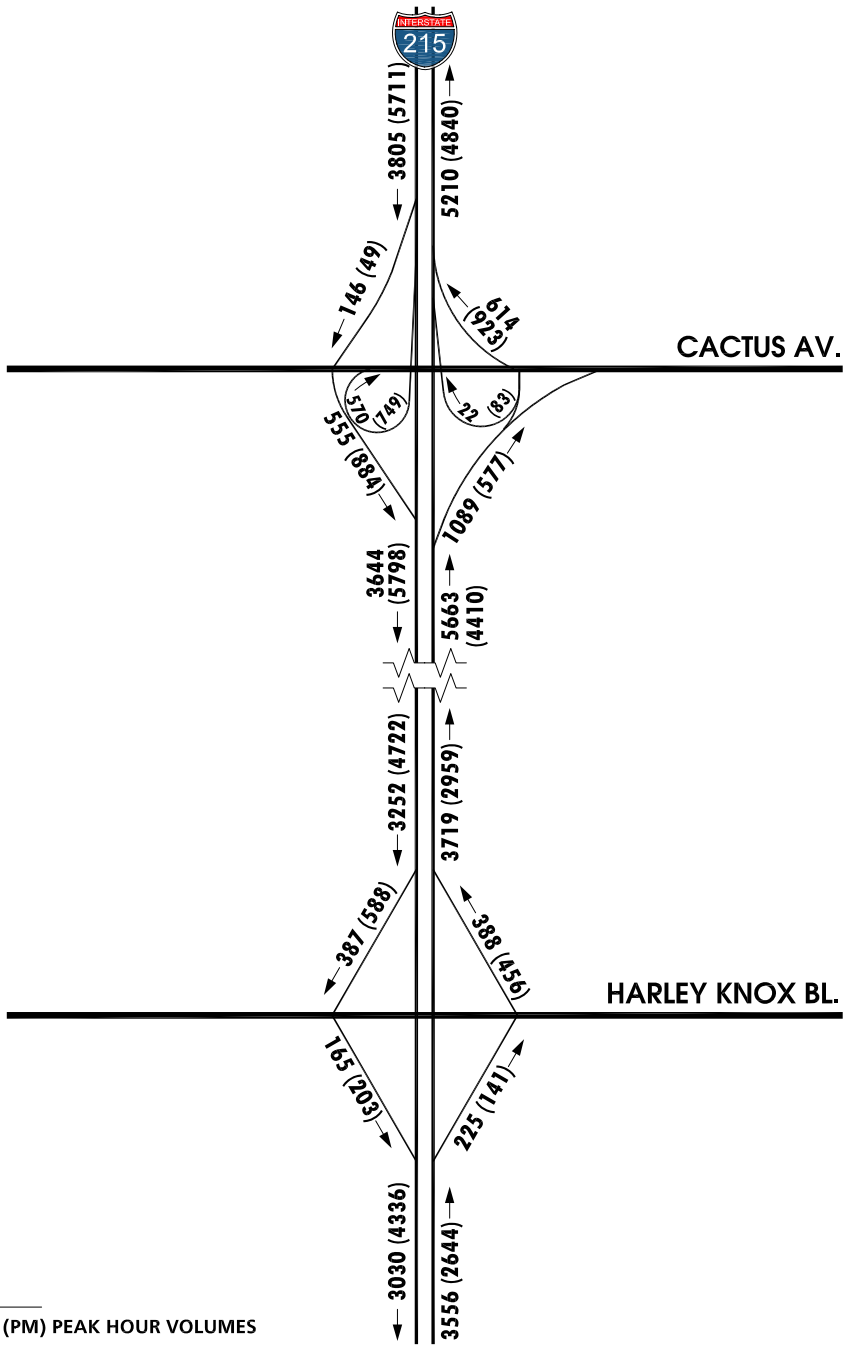
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-49
Existing Plus Project (E+P) I-215 Freeway Mainline Volumes



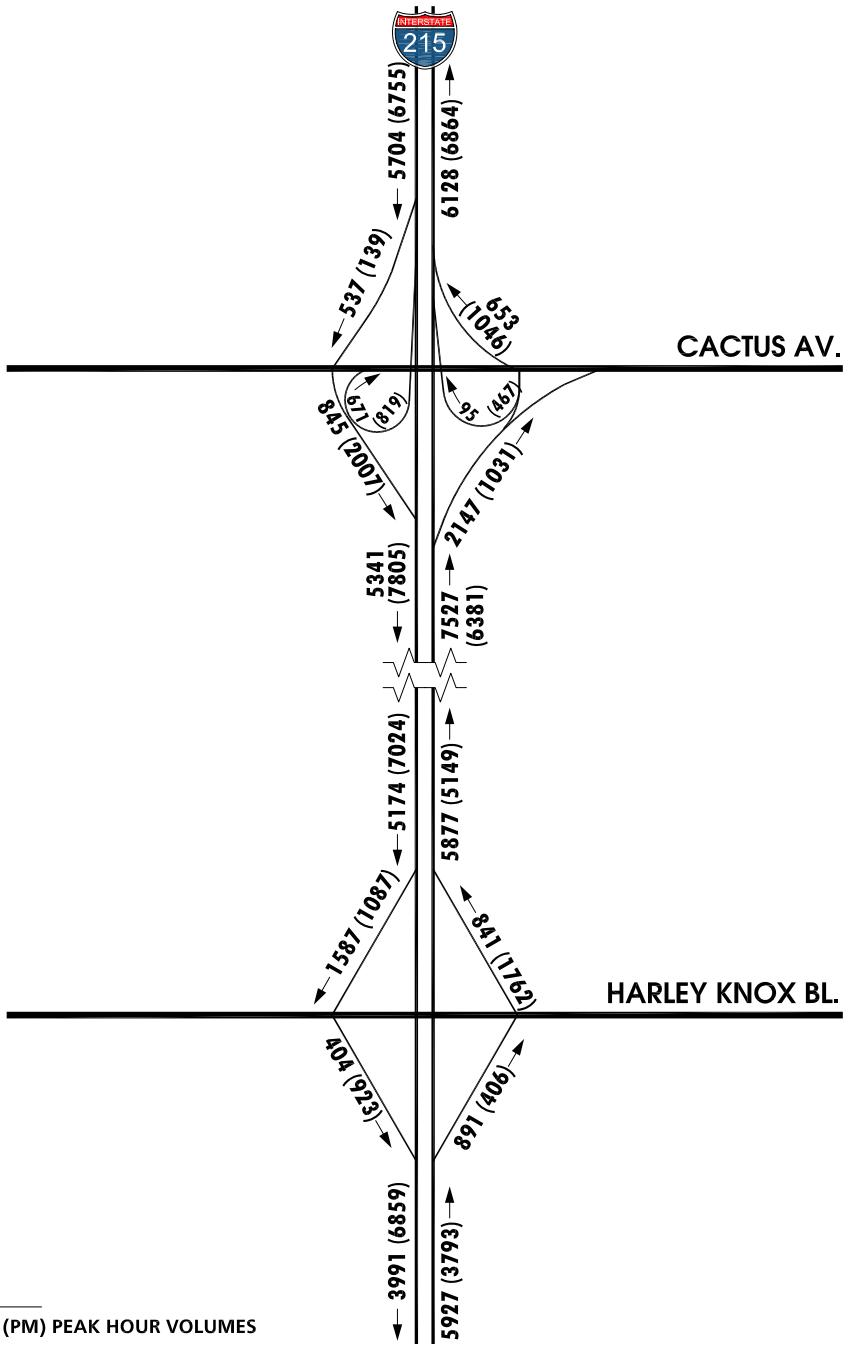
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-50
Opening Year (2016) Without Project (E+A) I-215 Freeway Mainline Volumes



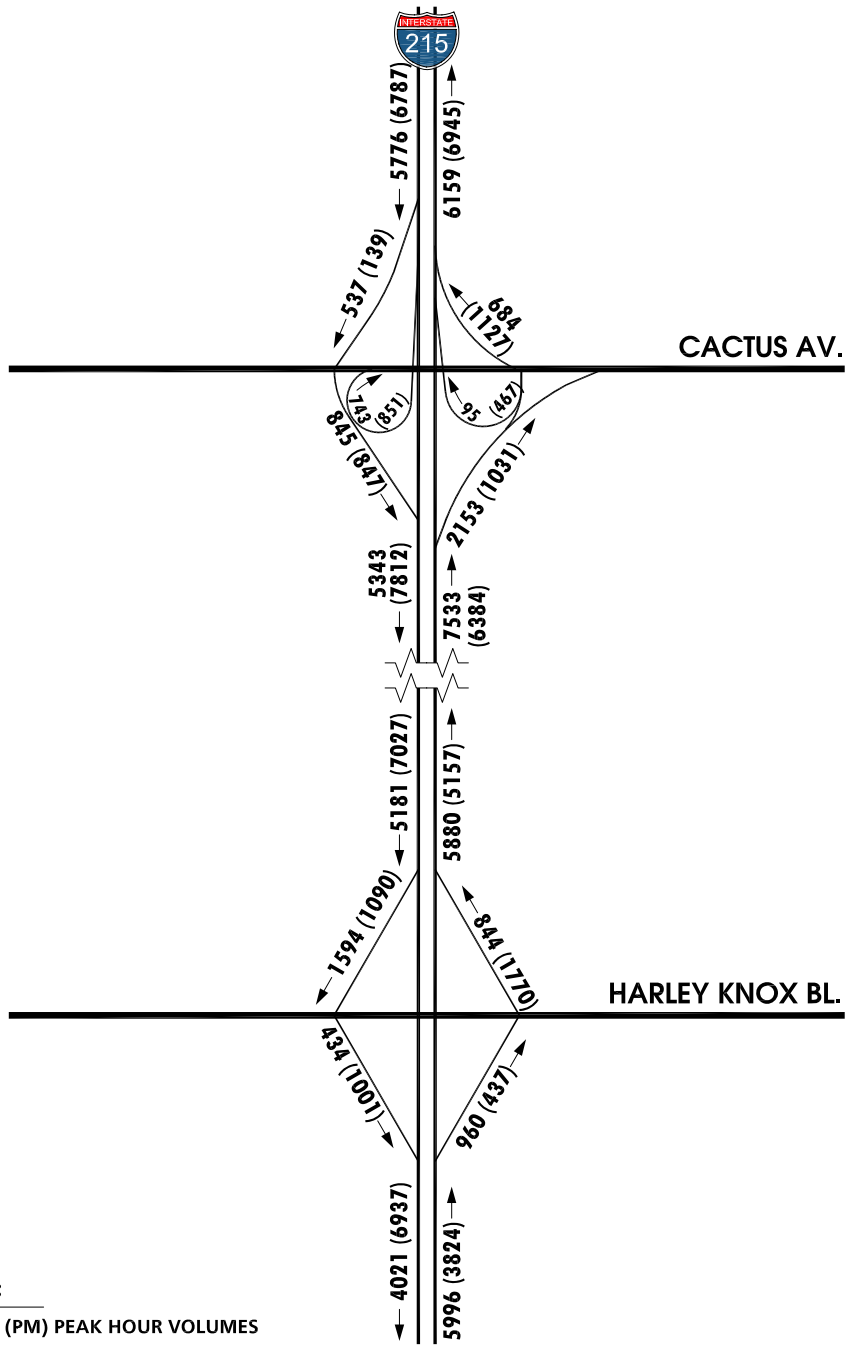
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-51
Opening Year (2016) With Project (E+A+P) I-215 Freeway Mainline Volumes



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-52
Horizon Year (2016) Without Project (E+A+C) I-215 Freeway Mainline Volume



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-53
Horizon Year (2016) With Project (E+A+C+P) I-215 Freeway Mainline Volume

4.12 UTILITIES AND SERVICE SYSTEMS

This subsection addresses the topics of water service and supply, wastewater collection and treatment, stormwater drainage management, and solid waste collection and disposal. The information contain herein is based in part on information contained in the "Water Supply Assessment for Tentative Parcel Map 35879," prepared by EMWD (May 14, 2008). A copy of this report is provided as *Technical Appendix K1* to this EIR. In addition, the analysis in this subsection is based on information contained within written correspondence received from EMWD staff (July 28, 2011), which is provided as *Technical Appendix K2* to this EIR. The analysis in this subsection also is based on information obtained from EMWD's 2005 Urban Water Management Plan (EMWD 2005b), EMWD's 2010 Urban Water Management Plan (EMWD 2011a), EMWD's Sewer System Management Plan (EMWD 2009b), RCFCWCD's Master Drainage Plans (RCFCWCD n.d.) and readily available information from the Riverside County Department of Waste Management and California Department of Resources Recycling and Recovery (CalRecycle). A complete list of references can be found in EIR Section 7.0, References.

4.12.1 EXISTING CONDITIONS

A. Water Service and Supply

The Project site is located in the service area of EMWD for water service and supply. EMWD's water service area is approximately 555 square miles, which encompasses a majority of the eastern portion of the Santa Ana River Basin. As disclosed in EMWD's 2010 Urban Water Management Plan, the principal water supplies of EMWD include imported water from the Metropolitan Water District of Southern California (MWD), recycled water, local groundwater production, and desalted groundwater. In 2010, Approximately 10% of EMWD's water supply came from local groundwater resources, with an additional 4.5% from desalination of brackish groundwater and 26.5% from EMWD's four (4) regional water reclamation facilities (EMWD 2011a 28). The remaining portion of EMWD's water supply (approximately 60%) came through purchases from MWD.

Water Code Section 10620 (a) of the California Urban Water Management Planning Act states, "Every urban water supplier shall prepare and adopt an urban water management plan…" These plans are to be updated every five years and submitted to the State Department of Water Resources (DWR). In addition to meeting the requirements of this Act, the plans are be used to support water supply assessment and verification required by Senate Bills 610 and 221 of 2001. These bills require that water supply information be provided to counties and cities for projects of a certain size prior to project approval.

EMWD's 2005 and 2010 Urban Water Management Plans (UWMP), approved by the EMWD Board of Directors in December 2005 and June 2011, respectively, are herein incorporated by reference and are available for public review at EMWD, 2270 Trumble Rd., Perris CA. The UWMPs also are available on-line at http://www.emwd.org/news/publications.html. The Project's Water Supply Assessment (*Technical Appendix K1)* is based on the 2005 UWMP. The 2010 UWMP was approved by EMWD during the public review period for this EIR's NOP. Both Plans include a water system analysis, identify improvements to correct existing deficiencies and serve projected future growth, and present the estimated costs and phasing of the recommended improvements. As concluded in the 2010 UWMP, EMWD anticipates that it will be able to meet projected demand for water within its service boundaries until at least the year 2035 in all types of climate situations, including normal, dry, and multiple consecutive dry weather years.

A Water Shortage Contingency Plan is included in the 2010 UWMP, which would be implemented by EMWD in cases of future water deficiencies caused by limitations on supply or EMWD's delivery system (EMWD 2011a Sec. 5). Previously, on June 20, 2007, EMWD adopted a Water Shortage Contingency Plan (Ordinance No. 117.1), which required actions to be taken by EMWD to maximize supply reliability during dry years. This ordinance was amended on March 5, 2009 (Ordinance No. 117.2). At the time of long- or short-term drought conditions, or other emergencies, EMWD would inform their customers of the need to conserve water and impose penalties for non-compliance with mandatory water use reductions. Compliance with mandatory water use reductions would ensure that EMWD has the ability to meet present and projected demand within its service area during dry years.

Under existing conditions, no water is consumed by the Project site, as the property is vacant and undeveloped. As previously shown on Figure 3-7, *Conceptual Water Plan*, there are existing potable water lines beneath the Heacock Street and Iris Avenue rights-of-way, which form the western and northern bounds of the Project site, respectively. There are no existing recycled water facilities in the immediate vicinity of the Project site.

B. Wastewater Service and Treatment

Wastewater collection and treatment service to the Project area is provided by EMWD. EMWD owns and operates four regional wastewater treatment plants, including the Moreno Valley Regional Water Reclamation Facility and the Perris Valley Regional Water Reclamation Facility. Both of these facilities would ultimately receive wastewater from the proposed Project: wastewater flows from areas north of the Perris Valley Channel (*i.e.*, including the Project's proposed Parcels 1-3) are conveyed to the Moreno Valley Regional Water Reclamation Facility and wastewater flows from areas south of the Perris Valley Channel (*i.e.*, including the Project's proposed Parcel 4) are conveyed to the Perris Valley Regional Water Reclamation Facility.

On June 20, 2007, the EMWD Board of Directors approved an expansion of the Moreno Valley Regional Water Reclamation Facility to provide more efficient and effective treatment capabilities. The approved expansion project would expand the treatment capacity at this facility to 18.0 million gallons per day (EMWD 2007). The first phase of improvements is complete, and the current treatment capacity at the Moreno Valley Regional Water Reclamation Facility is 16 million gallons per day. Upon completion of construction in 2012, the facility will have a treatment capacity of 18.5 million gallons per day (Eiselein 2009). The design of this facility can accommodate the ultimate future expansion to 41 million gallons per day of treatment capacity (EMWD n.d.).

On January 19, 2005, the EMWD Board of Directors approved an expansion of the Perris Valley Regional Water Reclamation Facility (EMWD 2005). The current treatment capacity of the Perris Valley Regional Water Reclamation Facility is 15 million gallons per day. Upon completion of construction in the summer of 2011, the facility will have a treatment capacity of 22 million gallons per day. The design of the Perris Valley Regional Water Reclamation Facility can accommodate the ultimate future expansion to 100 million gallons per day of treatment capacity (EMWD n.d).

Under existing conditions, no wastewater is produced by the Project site, as the property is vacant and undeveloped. Wastewater service is available under existing conditions to portions of the site north of the Perris Valley Channel (*i.e.*, proposed Parcels 1-3) via facilities installed beneath Iris Avenue and Heacock Street (as previously shown on Figure 3-9, *Conceptual Sewer Plan*). No

wastewater service is available to areas of the Project site located south of the Perris Valley Channel (*i.e.*, proposed Parcel 4) under existing conditions.

C. Stormwater Conveyance Facilities

As described in Subsection 4.8, Hydrology and Water Quality, the portion of the Project site located north of the Perris Valley Channel (*i.e.*, proposed Parcels 1-3) is located within the Sunnymead MDP, while the portion of the Project site south of the Perris Valley Channel (*i.e.*, proposed Parcel 4) is located within the Perris Valley MDP. The RCFCWCD manages flood hazards in the area, regulates drainage systems and their development, and provides maintenance and operation of the public storm drain system. The Perris Valley and Sunnymead MDPs were prepared by the RCFCWCD and address the current and future drainage needs of the area and specify facilities capable of economically relieving flooding problems within the MDP areas (RCFCWCD n.d.).

Under existing conditions, the Perris Valley Channel bisects the Project site, splitting it into two separate drainage areas. The majority of the Project site (*i.e.*, proposed Parcels 1, 2, and 3) occurs north of the Perris Valley Channel and generally conveys flows through the site in a north-south orientation, with flows discharging at a point approximately 260 feet westerly of the southwestern corner of the Project site. The southwestern portion of the Project site (*i.e.*, proposed Parcel 4) generally drains from northwest to southeast, and discharges at the southeast corner of the Project site Flows from both portions of the site are conveyed to the Perris Valley Channel. Flows are conveyed by the Perris Valley Channel to the San Jacinto River, Reach 3. Refer to EIR Subsection 4.8, Hydrology and Water Quality, for additional information about the existing storm water system.

D. Solid Waste Collection and Disposal

The Project site is located within the service area boundaries of Waste Management of the Inland Empire, a division of Waste Management, Inc. Under existing conditions, no solid waste is produced by the Project site, as the property is vacant and undeveloped. Solid waste collected in the City of Moreno Valley is primarily deposited at the El Sobrante Landfill and the Badlands Sanitary Landfill, although some waste is also deposited at the Lamb Canyon Sanitary Landfill. Recyclables are collected separately by Waste Management of the Inland Empire and delivered to one if its material recovery facilities. Information about the landfills to which the proposed Project's solid waste would likely be deposited is provided below.

❑ El Sobrante Landfill

The El Sobrante Landfill is located east of I-15 and Temescal Canyon Road to the south of the City of Corona and Cajalco Road at 10919 Dawson Canyon Road. The landfill is owned and operated by USA Waste of California, a subsidiary of Waste Management, Inc. The landfill encompasses 1,322 acres, of which 645 acres are permitted for waste disposal (Ross 2011). The El Sobrante Landfill is permitted to receive 70,000 tons of refuse per week, which corresponds to an average disposal rate of 10,000 tons per day (Ross 2011, Waste Management of the Inland Empire n.d.). As of January 1, 2011, the landfill has a remaining in-County disposal capacity of approximately 38.506 metric tons (Ross 2011). This landfill is estimated to reach capacity in the year 2045 (Ross 2011, CalRecycle n.d.).

During the first quarter of 2011 (January 1st through March 31st), the El Sobrante Landfill accepted approximately 555,666 tons of landfill waste (approximately 6,174.1 tons per day), which

corresponds to approximately 62% of its average permitted daily disposal volume (Riverside County Waste Management Department 2011).

❑ Badlands Sanitary Landfill

The Badlands Sanitary Landfill is located northeast of the City of Moreno Valley at 31125 Ironwood Avenue. This landfill is owned and operated by the Riverside County Waste Management Department. The Badlands Sanitary Landfill encompasses approximately 1,168 acres, of which 150 acres are permitted for waste disposal (Ross 2011). The landfill is permitted to receive 4,000 tons of waste per day. The Badlands Sanitary Landfill has an estimated disposal capacity of 15.237 millions tons, and as of January 1, 2011, the Badlands Sanitary Landfill had a total remaining disposal capacity of approximately 8.987 million tons (Ross 2011). This landfill is estimated to reach capacity, at the earliest time, in the year 2024; however, future landfill expansion opportunities exist at the Badlands Sanitary Landfill site (Ross 2011, CalRecycle n.d.).

During the first quarter of 2011 (January 1st through March 31st), the Badlands Sanitary Landfill accepted approximately 130,091.4 tons of landfilled waste (approximately 1,445.5 tons per day), which corresponds to approximately 36% of its permitted daily disposal volume (Riverside County Waste Management Department 2011).

❑ Lamb Canyon Sanitary Landfill

The Lamb Canyon Sanitary Landfill is located between the City of Beaumont and the City of San Jacinto at 16411 Lamb Canyon Road (SR-79), with Interstate 10 to the north and Highway 74 to the south. This landfill is owned and operated by the Riverside County Waste Management Department. The landfill encompasses 1,189 acres, of which 580.5 acres are permitted for waste disposal. The Lamb Canyon Sanitary Landfill is permitted to receive 5,000 tons of waste per day. The landfill has an estimated disposal capacity of 15.646 million tons, of which 8.987 million tons was remaining as of January 1, 2011 (Ross 2011). The landfill is estimated to reach capacity, at the earliest, in the year 2021; however, future landfill expansion opportunities exist at the Lamb Canyon Sanitary Landfill site (Ross 2011, CalRecycle n.d.).

During the first quarter of 2011 (January 1st through March 31st), the Lamb Canyon Landfill accepted approximately 133,563.8 tons of landfilled waste (approximately 1,484.0 tons per day), which corresponds to approximately 30% of its permitted daily disposal volume (Riverside County Waste Management Department 2011).

E. Applicable Environmental Regulations

❑ California Solid Waste Integrated Waste Management Act (AB 939)

Signed into law in 1989, the California Integrated Waste Management Act (Assembly Bill (AB) 939) established an integrated waste management system that focused on source reduction, recycling, composting, and land disposal of waste. In addition, the bill established a 50% waste reduction requirement for cities and counties by the year 2000, along with a process to ensure environmentally safe disposal of waste that could not be diverted.

❑ California Solid Waste Reuse and Recycling Act (AB 1327)

Signed into law in 1991, the California Solid Waste Reuse and Recycling Access Act (AB 1327) added Chapter 18 to Part 3 of Division 30 of the Public Resources Code. Chapter 18 required the

California Integrated Waste Management Board (CIWMB) to develop a model ordinance for adoption of recyclable materials in development projects (It should be noted that the CIWMB no longer exists and its duties have been assumed by CalRecycle). Local agencies were then required to adopt the model, or an ordinance of their own, in order to govern adequate areas for collection and loading of recyclable materials in development projects. This Act requires all development projects that are commercial, industrial, institutional, or marina in nature and where solid waste is collected and loaded, to provide an adequate area for collecting and loading recyclable materials over the lifetime of the project. The area is required to be provided before building permits are issued.

4.12.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to utilities and service systems if the Project or any Project-related component would:

1. *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;*

2. *Require or result in construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or*

3. *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;*

The proposed Project also would result in a significant impact to utilities and service systems if any of the following resulted in a significant adverse change to the physical environment as a result of the Project or any Project-related component:

4. *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;*

5. *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;*

6. *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or*

7. *Comply with federal, state, and local statues and regulations related to solid waste.*

4.12.3 IMPACT ANALYSIS

Threshold 1: Would the Project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Wastewater treatment and collection services would be provided to the Project site by EMWD. EMWD is required to operate all of its treatment facilities, including the two facilities that would receive wastewater flows from the Project site (Moreno Valley Regional Water Reclamation Facility and the Perris Valley Regional Water Reclamation Facility) in accordance with the waste treatment and discharge standards and requirements set forth by the Regional Water Quality Control Board

(RWQCB). The proposed Project would not install or utilize septic systems or alternative wastewater treatment systems; therefore, the Project would have no potential to result in exceedances of the applicable wastewater treatment requirements established by the RWQCB. Accordingly, impacts would be less than significant.

Threshold 2:	***Would the Project require or result in construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?***
Threshold 4:	***Would the Project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?***
Threshold 5:	***Would the Project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?***

❑ Water Facilities

Potable water service would be provided to the Project site via connections to existing potable water lines within the rights-of-ways for Heacock Street and Iris Avenue (as depicted on Figure 3-7, *Conceptual Water Plan*). Multiple connections to these existing potable water lines, as well as the installation of new potable water lines interior to the Project site would ensure that water service to the site would meet the water supply demands of the proposed development. The existing water conveyance infrastructure would be adequate to service the Project, and the Project would not require or result in the construction of new or expanded water conveyance facilities off site, including storage tanks, pump stations, or water lines. Construction-related activities associated with trenching for and installing water lines on site would result in physical impacts to the environment; these impacts are inherent in the Project's construction phase and are evaluated throughout this EIR accordingly. There would be no significant environmental effects specifically related to the installation of water facilities during the Project's construction. In instances where significant impacts have been identified for the Project's construction phase, mitigation measures are recommended in each applicable subsection of this EIR, as feasible.

EMWD is responsible for supplying potable water to the Project site and the region. As discussed in EMWD's 2005 and 2010 UWMPs, adequate water supplies are projected to be available to meet estimated water demand until at least the year 2035 in all types of climate conditions, including normal, dry, and multiple dry-weather years (EMWD 2005b, EMWD 2011a). EMWD forecasts for projected water demand are based on the adopted land use designations contained within the general plans for the respective cities and unincorporated areas of Riverside County contained within the EMWD's service area. As discussed in Subsection 4.9, Land Use and Planning, the proposed Project is consistent with the land use designations applied to the property by the City of Moreno Valley General Plan. As such, development of the site as proposed has been previously assumed by the EMWD in its projections of future water supply and demand.

Furthermore, EMWD has prepared a water supply assessment for the proposed Project (included as *Technical Appendix K1* to this EIR) to assess the ultimate effect of the Project's water demands and service needs. The water supply assessment was prepared in accordance with Senate Bill 610 (SB 610) and Senate Bill 221 (SB 221). SB 610 requires the preparation of a water supply assessment

report for projects that propose to construct the equivalent of 500 or more residential dwelling units. SB 221 requires affirmative written verifications of sufficient water supply. As documented in *Technical Appendix K1*, EMWD projects water demand associated with the Project would be 46,851 gallons per day, which corresponds to 52.5 acre-feet per year. Based on a review of existing and anticipated future water supplies and demands, EMWD has determined that adequate water supplies are available to service proposed development (see *Technical Appendix K1*). No new or expanded entitlements are needed.

It should be noted that the water supply assessment prepared for the Project was drafted prior to the adoption of the 2010 UWMP by EMWD in June 2011. However, the updated information contained within the 2010 UWMP supports the findings of the Project's water supply assessment. The total future population anticipated in 2030 within EMWD's service area, excluding the Rancho California Water District portion of the EMWD, was identified as 943,567 persons in the Project's water supply assessment; the 2010 UWMP identifies the future population for this portion of the Water District as being 921,559, or 22,008 people less than the estimate stated in the Project's water supply assessment. Similarly, future water use within the EMWD service area is projected to decrease by 12% in 2030 as compared to what was assumed in the Project's water supply assessment. With regard to supply, the 2010 UWMP indicates that total water supply available in 2030 from all available sources would be 285,600 acre-feet per year (AFY) under "Average Year Hydrology" conditions, while the Project's water supply assessment references a total water supply of only 285,600 AFY; thus, the EMWD projects that total water supplies in 2030 will increase by 11% as compared to what was evaluated in the Project's water supply assessment. Because the future (Year 2030) demand for water resources within the EMWD service area is projected to decline compared to what was evaluated in the Project's water supply assessment, and because the total 2030 water supply available to the EMWD is projected to increase as compared what was evaluated in the Project's water supply assessment, EMWD's 2010 UWMP confirms the findings of the Project's water supply assessment and demonstrates that the EMWD would have sufficient supplies to serve the Project in light of past, present, and future commitments.

Furthermore, pursuant to EMWD policy, water supply assessments prepared for development projects must be reviewed every three (3) years to ensure the information remains accurate and that sufficient water supply is available to serve the project. On July 28, 2011, EMWD reviewed the original water supply assessment that was prepared for the Project and determined that the findings of the report remained accurate and that EMWD would continue to consider the water demand of the proposed Project in future district-wide assessments (see *Technical Appendix K2*).

With the exception of new on-site water service lines, the Project would not create the need for any new or expanded water facility (such as treatment facilities, storage tanks, or pump stations). The construction of on-site water facilities would result in physical impacts to the surface and subsurface of the Project site; however, these impacts are considered to be inherent to the Project's construction phase and are evaluated throughout this EIR accordingly. In instances where significant impacts have been identified for the Project's construction phase, mitigation measures are recommended in each applicable subsection of this EIR, as feasible. There would be no significant environmental effects created particular to on-site water line installation. There is adequate water supply to service the Project and no new or expanded entitlements are needed.

❑ Wastewater Facilities

The proposed Project would result in the demand for wastewater collection and treatment. As depicted on Figure 3-8, *Conceptual Sewer Plan*, wastewater flows from the northern portion of the Project site (*i.e.*, proposed Parcels 1-3) would be conveyed by gravity via an on-site network of sewer lines and would connect to an existing 30-inch sewer line adjacent to and north of the Perris Valley Channel. No sewer service is available to the southwestern portion of the Project site (*i.e.*, proposed Parcel 4) under existing conditions. The Project proposes to construct an off-site sewer line within Heacock Street to connect proposed Parcel 4 to existing sewer conveyance facilities near the intersection of Cardinal Avenue and Heacock Street (a distance of approximately 0.5-mile). Installation of the Project's proposed on- and off-site sewer conveyance facilities would result in physical impacts to the environment; however, these impacts are considered to be an inherent part of the Project's construction phase and are evaluated throughout this EIR accordingly. There would be no significant environmental effects specifically related to the installation of sewer facilities during the Project's construction. In instances where significant impacts have been identified for the Project's construction phase, mitigation measures are recommended in each applicable subsection of this EIR, as feasible.

As previously discussed in EIR Section 3.3.6, *Project Construction and Operational Characteristics*, the proposed Project is estimated to generate approximately 113,849 gallons of wastewater per day (using EMWD's wastewater generation rate of 1,700 gallons per day per acre for light industrial land uses). Proposed Parcels 1-3 would generate 111,231 gallons of wastewater per day, and proposed Parcel 4 would generate approximately 2,618 gallons of wastewater per day.

Wastewater from proposed Parcels 1-3 would be conveyed via the EMWD sewer line network to the Moreno Valley Regional Water Reclamation Facility. Under existing conditions, the Moreno Valley Regional Water Reclamation Facility has a daily treatment capacity of 16 million gallons per day, but only processes an average of 11.6 million gallons of wastewater per day (4.4 million gallons per day excess capacity). Following the completion of an approved expansion project in 2012, this facility will have an additional 2.0 million gallons per day of treatment capacity. Environmental impacts associated with the Moreno Valley Regional Water Reclamation Facility expansion project were previously evaluated in an MND prepared by EMWD and approved by its Board of Directors (SCH 2007031155). The MND is hereby incorporated by reference and is available for public review at EMWD, 2270 Trumble Rd., Perris CA. Parcels 1-3 would generate approximately 111,231 gallons of wastewater per day, which would correspond to approximately 2.5% of the current available treatment capacity at the Moreno Valley Regional Water Reclamation Facility (or approximately 1.7% of the available treatment capacity following completion of the current expansion project). Accordingly, this facility would have sufficient capacity to treat wastewater generated by the Project.

Wastewater from proposed Parcel 4 would be conveyed via the EMWD sewer line network to the Perris Valley Regional Water Reclamation Facility. Under existing conditions, this facility has a daily treatment capacity of 15 million gallons per day. Following completion of an expansion project in 2011, the treatment capacity of this plant will increase to 22 million gallons per day. Environmental impacts associated with the Perris Valley Regional Water Reclamation Facility expansion project were previously evaluated in an MND prepared by EMWD and approved by its Board of Directors (SCH 2004101086). The MND is hereby incorporated by reference and is available for public review at EMWD, 2270 Trumble Rd., Perris CA. The Perris Valley Regional Water Reclamation Facility is currently operating below capacity, and will operate further below capacity once the current expansion project is complete. Due to the relatively small amount of

wastewater that would be generated by proposed Parcel 4 (approximately 2,618 gallons of wastewater per day), and the amount of available capacity at this facility, it is determined that the Perris Valley Regional Water Reclamation Facility would have sufficient capacity to treat wastewater generated by the Project.

With the exception of new on-site and off-site sewer conveyance lines, the Project would not create the need for any new or expanded wastewater facility (such as treatment facilities, storage tanks, or pump stations). Construction of the Project's proposed sewer conveyance lines facilities would result in physical impacts to the surface and subsurface of the Project site and the surface and subsurface of a 0.5-mile segment of Heacock Street and its intersection with Cardinal Avenue; however, these impacts are considered to be inherent to the Project's construction phase and are evaluated throughout this EIR accordingly. In instances where significant impacts have been identified for the Project's construction phase, mitigation measures are recommended in each applicable subsection of this EIR, as feasible.

❑ Conclusion

New water and wastewater lines would be installed beneath the Project site and a new wastewater line would be installed beneath the paved right-of-way of Heacock Street as part of the Project's construction. The installation of these lines would cause surface disturbances and construction-related impacts that are evaluated throughout this EIR. There are no adverse environmental effects identified that are solely and particularly related to the installation of water and wastewater lines. Sufficient water supplies and wastewater treatment capacities are available from EMWD to service the Project and no new or expanded entitlements are needed.

Threshold 3:	***Would the Project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?***

As previously depicted on Figure 3-9, *Conceptual Drainage Plan*, the proposed Project would construct an on-site network of storm drains and detention/water quality basins to convey storm drain flows. The Project also would construct a new storm drain beneath the existing paved right-of-way of Heacock Street and would connect to an existing storm drain beneath the paved right-of-way of Iris Avenue. Off-site improvements would include the construction of two storm drain outfalls within the Perris Valley Channel. As previously discussed in EIR Section 4.8, *Hydrology and Water Quality*, implementation of the Project would not increase peak runoff flows on the property above existing levels; therefore, the proposed Project would not require the expansion of any existing storm water drainage facilities.

The construction of storm drain lines and detention/water quality basins as proposed by the Project would result in physical impacts to the surface and subsurface of the Project site, the existing paved right-of-way of Heacock Street, and two outlet locations within the Perris Valley Channel. These impacts are considered to be part of the Project's construction phase and are evaluated throughout this EIR accordingly (see EIR Subsection 4.3, Biological Resources, for a detailed discussion of physical impacts associated with construction of the proposed storm drain outfalls within the Perris Valley Channel). In instances where significant impacts have been identified for the Project's construction phase, mitigation measures are recommended in each applicable subsection of this EIR, as feasible.

In conclusion, the Project would result in the construction of new storm water drainage facilities on and beneath the Project site, beneath the paved right-of-way of Heacock Street, and as two new outlet locations within the Perris Valley Channel. The installation of these facilities would cause surface disturbances and construction-related impacts that are evaluated throughout this EIR. There would be one adverse environmental effect solely and particularly related to the installation of new storm water drainage facilities: impact to 0.06-acre of unvegetated streambed in the Perris Valley Channel from the construction of two new outlet structures. This impact is evaluated in Subsection 4.3, Biological Resources. As concluded in Subsection 4.3, there would be no loss of functions and values of riparian habitat or substantial effect on a sensitive natural community as the result of this impact. In accordance with the California Fish and Game Code, the Project is required to obtain a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Game (CDFG) for impact to 0.06-acre of CDFG jurisdictional area in the Perris Valley Storm Drain Channel. Additionally, in accordance with the Clean Water Act, a Section 404 Permit is required from the U.S. Army Corps of Engineers (Corps) and a Section 401 Permit is required from the Regional Water Quality Control Board (RWQCB) for impact to 0.05-acre of Corps and RWQCB jurisdictional area in the Perris Valley Storm Drain Channel. With mandatory adherence to Permit conditions, impacts would be less than significant.

Threshold 6: Would the Project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Construction and operation of the proposed Project would result in the generation of solid waste, requiring disposal at a landfill.

❑ Construction Impacts

Table 4.12-1, *Estimated Construction Solid Waste Generation*, provides an estimate of the amount of construction debris that would be generated by the Project during each phase of construction, based on non-residential construction waste generation factors provided by the U.S. Environmental Protection Agency. As presented in Table 4.12-1, the Project would generate approximately 9.4 tons of waste per day during Phase 1 of construction and approximately 4.0 tons of construction waste per day during Phase 2 of construction. Solid waste generated by the Project would be disposed at the El Sobrante Landfill (average daily permitted disposal capacity of 10,000 tons per day), the Badlands Sanitary Landfill (permitted disposal capacity of 4,000 tons per day) and/or the Lamb Canyon Sanitary Landfill (permitted disposal capacity of 5,000 tons per day).

Table 4.12-1 Estimated Construction Solid Waste Generation

PHASE	BUILDING AREA[1]	SOLID WASTE GENERATION RATE[2]	DURATION[1]	TOTAL[3]	
				LBS/DAY	TONS/DAY
1	1,103,003 s.f.	4.34 lb/square-foot	255 working days	18,773	9.4
2	381,404 s.f.	4.34 lb/square-foot	205 working days	8,075	4.0

1: Based on information presented in EIR Section 3.3.5.A, *Construction Details*. Estimated duration of construction Phase 1 is 255 working days. Estimated duration of construction Phase 2 is 205 working days.
2: Source: U.S. Environmental Protection Agency (2009), *Estimating 2003 Building-Related Construction and Demolition Materials Amounts*.
3: approximate values

Construction waste from Phase 1 would represent approximately 0.09% of the permitted disposal capacity at the El Sobrante Landfill, approximately 0.24% of the permitted daily disposal capacity at the Badlands Sanitary Landfill, and approximately 0.19% of the permitted daily disposal capacity at the Lamb Canyon Sanitary Landfill. Construction waste from Phase 2 of the Project would represent approximately 0.04% of the permitted disposal capacity at the El Sobrante Landfill, approximately 0.10% of the permitted daily disposal capacity at the Badlands Sanitary Landfill, and approximately 0.08% of the permitted daily disposal capacity at the Lamb Canyon Sanitary Landfill. These landfills receive well below their maximum permitted daily disposal volume, and none of these regional landfill facilities are expected to reach their total maximum permitted disposal capacities during the Project's construction period. The landfills have sufficient capacity to accept solid waste generated by the Project's construction phases; therefore, impacts would be less than significant.

❑ Operational Impacts

Table 4.12-2, *Estimated Operational Solid Waste Generation*, provides an estimate of the amount of solid waste that would be generated at Project buildout, based on waste generation factors obtained from the California Department of Resources Recycling & Recovery (CalRecycle). As summarized in Table 4.12-2, the Project is estimated to generate approximately 10.5 tons of solid waste per day during long-term operation. Solid waste generated by the Project would be disposed at the El Sobrante Landfill (average daily permitted disposal capacity of 10,000 tons per day), the Badlands Sanitary Landfill (permitted disposal capacity of 4,000 tons per day) and/or the Lamb Canyon Sanitary Landfill (permitted disposal capacity of 5,000 tons per day).

Table 4.12-2 Estimated Operational Solid Waste Generation

LAND USE	BUILDING AREA[1]	SOLID WASTE GENERATION RATE[2]	TOTAL[3]	
			LBS/DAY	TONS/DAY
Light Industrial/ Warehouse	1,484,407 s.f.	1.42 lb/100 s.f./day	21,079	10.5

1: Based on information presented in EIR Table 3-2, *March Business Center Statistical Summary*.
2: Source: CalRecycle; http://www.calrecycle.ca.gov/WasteChar/WasteGenRates/default.htm
3: approximate values

During long-term operation, the Project's solid waste would represent approximately 0.11% of the average daily permitted disposal capacity at the El Sobrante Landfill, approximately 0.26% of the permitted daily disposal capacity at the Badlands Sanitary Landfill, and approximately 0.21% of the permitted daily disposal capacity at the Lamb Canyon Sanitary Landfill. These landfills receive well below their maximum permitted daily disposal volume, and none of these regional landfill facilities are expected to reach their maximum permitted disposal capacities. The landfills have sufficient capacity to accept solid waste generated by the Project's operation; therefore, impacts would be less than significant.

Threshold 7: Would the Project comply with federal, state, and local statues and regulations related to solid waste?

The California Integrated Waste Management Act (Assembly Bill (AB) 939), signed into law in 1989, established an integrated waste management system that focused on source reduction, recycling, composting, and land disposal of waste. In addition, the bill established a 50% waste reduction requirement for cities and counties by the year 2000, along with a process to ensure

environmentally safe disposal of waste that could not be diverted. Per the requirements of the Integrated Waste Management Act, the Riverside County Board of Supervisors adopted the Riverside Countywide Integrated Waste Management Plan (CIWMP) (adopted January 14, 1997), which outlines the goals, policies, and programs the County and its cities will implement to create an integrated and cost effective waste management system that complies with the provisions of AB 939 and its diversion mandates.

In order to assist the City of Moreno Valley and the County of Riverside in achieving the mandated goals of the Integrated Waste Management Act, the Project applicant or master developer would be required to work with future refuse haulers to develop and implement feasible waste reduction programs, including source reduction, recycling, and composting. Additionally, in accordance with the California Solid Waste Reuse and Recycling Act of 1991 (Cal Pub Res. Code § 42911), the Project would provide adequate areas for collecting and loading recyclable materials where solid waste is collected. The collection areas are required to be shown on construction drawings and be in place before occupancy permits are issued. The implementation of these programs would reduce the amount of solid waste generated by the Project and diverted to landfills, which in turn will aid in the extension of the life of affected disposal sites. The Project will comply with all applicable solid waste statutes and regulations; as such, impacts would be less than significant.

4.12.4 CUMULATIVE IMPACT ANALYSIS

❑ Water Facilities

The cumulative study area for water supply and water service-related issues is the EMWD service area. Existing and future development within EMWD's service area would create a demand for additional water supplies. The 2010 UWMP prepared by EMWD projects population within the EMWD service area to increase to 1,043,818 persons by the Year 2035 (including the Rancho California Water District portion of the EMWD). Increases in population and development intensity would contribute to increases in the overall regional water demand. According to the water supply assessment letter prepared by EMWD for the proposed Project (see *Technical Appendix K*), the demand estimated for the proposed Project is within the limit of growth projected in the UWMP. Additionally, the anticipated conversion of water intensive land uses (*e.g.*, agriculture) to other, less water intensive land uses (*e.g.*, residential), as well as the implementation of existing water conservation measures and recycling programs in the EMWD service area, would reduce the need for increased water supply. The findings of the Project's water supply assessment also are confirmed by EMWD's 2010 UWMP, which shows that future population within the EMWD is expected to decline in comparison to the water supply assessment assumptions, while total supply would increase.

As stated above, EMWD is dependent on MWD (including SWP water) for the majority of its water supply. MWD is prepared for water supply deficiencies and emergencies through storage and facility design; for example, half of the capacity of Diamond Valley Lake, which is located within EMWD's service area, is reserved for emergency supply in case imported water supplies are not available. Additionally, EMWD has established a Water Shortage Contingency Plan to reduce water demand during a water supply shortage, including a reduction in availability of MWD raw water supply. The Water Shortage Contingency Plan provides several prohibitions and consumptive reduction methods that would reduce demand by more than 50% under the most extreme deficiencies.

Because the proposed Project would connect to existing conveyance infrastructure, because the Project is consistent with the property's General Plan land use designations that are incorporated into

EMWD's UWMP, and because EMWD is projected have adequate water supply for projected growth through 2035 in normal, dry, and multiple-dry years, no adverse cumulatively significant effect on water infrastructure or water supply would result from the development of the proposed Project.

❑ Wastewater Facilities

Wastewater produced by the Project would be conveyed through the EMWD sewer line network and would be treated at the Moreno Valley Regional Water Reclamation Facility and the Perris Valley Regional Water Reclamation Facility. Both of these facilities currently operate below operational capacity, which indicates there is sufficient capacity available to treat regional wastewater flows. Furthermore, both the Moreno Valley Regional Water Reclamation Facility and the Perris Valley Regional Water Reclamation Facility are undergoing expansion projects to increase daily treatment capacity, and these facilities are planned for additional future expansions (pursuant to the EMWD capital improvement program). Accordingly, EMWD has sufficient treatment capacity to treat existing and future wastewater flows generated in its service area, including wastewater generated at the proposed Project site. Therefore, cumulative wastewater service impacts are determined to be less than significant.

❑ Stormwater Drainage Facilities

The proposed Project's storm drain system has been designed to accommodate all existing flows that travel through the Project site from off-site properties, while providing for appropriate detention of on-site runoff (see EIR Subsection 4.8, Hydrology and Water Quality, for a detailed discussion). Proposed storm water drainage facilities would be adequately sized to ensure that future peak stormwater flows can be adequately captured and conveyed to regional stormwater drainage facilities. As such, a cumulatively considerable impact associated with stormwater facilities would not occur.

❑ Solid Waste Collection and Disposal

Three landfills could receive waste from the Project, including the El Sobrante Landfill, the Badlands Sanitary Landfill, and the Lamb Canyon Sanitary Landfill. These landfills are projected to have available disposal capacity until at least 2045 (El Sobrante), 2024 (Badlands Sanitary Landfill), and 2021 (Lamb Canyon Sanitary Landfill), respectively. During the Project's construction period, the Project would generate between 4.0 and 9.4 tons of construction waste per day. During long-term operation of the Project, up to 10.5 tons of solid waste would be generated by the Project on a daily basis. The Project's contribution of solid waste would represent less than one-half of one percent of the total waste being disposed at the El Sobrante Landfill, the Badlands Sanitary Landfill, and the Lamb Canyon Sanitary Landfill. These landfills have the capacity to accept the Project's waste, in addition to other solid waste generated in the landfills' service areas. All projects are required to comply with mandated waste reduction programs, which reduce the need for landfill capacity. As such, implementation of the Project would not result in cumulatively considerable impact on landfill capacity.

4.12.5 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Compliance with these measures was assumed throughout the above analysis of utilities and service systems.

PR 4.12-1 The Project is required to comply with all applicable provisions of the City of Moreno Valley Municipal Code Chapter 6.02 "Refuse Collection, Transfer and Disposal" and Chapter 8.80 "Recycling and Diversion of Construction and Demolition Waste."

PR 4.12-2 The Project is required to install water and wastewater conveyance facilities in accordance with the California Green Building Standards Code and to the requirements of the Eastern Municipal Water District.

Project Requirements PR 4.3-2 and PR 4.3-3 specified in Subsection 4.3, Biological Resources, and Mitigation Measures MM 4.6-3, MM 4.6-4, and MM 4.6-7 in Subsection 4.6, Greenhouse Gas Emissions, also apply.

4.12.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: Less than Significant Impact. The Project would not exceed wastewater treatment requirements of the Santa Ana RWQCB. Wastewater treatment and collection services would be provided by EMWD and EMWD is required to operate all of its treatment facilities in accordance with applicable waste treatment and discharge standards and requirements set forth by the RWQCB. The proposed Project would not install or use septic systems or alternative wastewater treatment systems.

Threshold 2: Less than Significant Impact. Water would be conveyed to the site through EMWD's existing water line network. Wastewater would be conveyed from the site through EMWD's existing wastewater collection network and treated at existing EMWD treatment facilities. With the exception of water and sewer conveyance lines that would be installed during the Project's construction, the Project would not require the construction of any new water or wastewater systems that have the potential to cause significant environmental effects. No new or expanded capacities or entitlements would be required.

Threshold 3: Less than Significant Impact. Stormwater would be collected on the Project site by an on-site drainage system installed during the Project's construction. With the exception of stormwater conveyance facilities, detention basins, and outlets that would be installed during the Project's construction, the Project would not require the construction of any new stormwater drainage facilities that have the potential to cause significant environmental effects.

Threshold 4: Less than Significant Impact. Sufficient water supplies are available to service the Project. EMWD would service the Project based on planned and existing water supplies as documented in its Urban Water Management Plan and a water supply assessment prepared for the Project.

Threshold 5: Less than Significant Impact. EMWD would provide wastewater treatment services to the Project site via the Moreno Valley Regional Water Reclamation Facility and the Perris Valley Regional Water Reclamation Facility. Both of these facilities have adequate capacity to service the Project and no new or expanded facilities would be needed.

Threshold 6: Less than Significant Impact. There is adequate capacity available at the El Sobrante, Badlands, and Lamb Canyon landfills to accept the Project's solid wastes. Landfill capacity would not be exceeded as a result of the proposed Project.

Threshold 7: Less than Significant Impact. The Project would comply with all applicable federal, state, and local statutes and regulations related to solid waste disposal, reduction, and recycling.

4.12.7 MITIGATION

Impacts would not be significant; therefore, mitigation measures would not be required.

5.0 MANDATORY CEQA TOPICS

5.1 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

The CEQA Guidelines require that an EIR disclose the significant environmental effects of a project which cannot be avoided if the proposed project is implemented (CEQA Guidelines Section 15126[b]). As described in detail in Section 4.0 of this EIR, the proposed Project is anticipated to result in seven (7) impacts to the environment that cannot be reduced to below a level of significance after implementation of relevant standard conditions of approval, compliance with applicable regulations, and application of feasible mitigation measures. The significant impacts that cannot be mitigated to a level below significant consist of the following:

- Air Quality (Near-Term): Significant direct and cumulative near-term impact to air quality during construction of Phase 1 of the proposed Project due to an exceedance of the SCAQMD regional thresholds for NO_X, emissions, which also would contribute to an existing air quality violation within the SCAB (i.e., non-attainment status for ozone) because NO_X is a precursor for ozone.

- Air Quality (Long-Term): Significant direct and cumulative long-term impact to air quality due to an exceedance of the SCAQMD regional thresholds for VOC and NO_X emissions, which also would contribute to an existing air quality violation within the SCAB (i.e., non-attainment status for ozone) because both NO_X and VOC emissions are a precursor for ozone.

The proposed Project's unavoidable air quality impacts listed above cannot be reduced to below a level of significance after implementation of the mitigation measures identified in this EIR. Additional feasible mitigation measures are not available to reduce near- and long-term unavoidable impacts due to NO_X emissions, nor are additional feasible mitigation measures available to reduce the proposed Project's significant impacts due to VOC emission.

- Noise (Near-Term): Significant direct and cumulative near-term impact to noise due to the exposure of nearby residential properties to noise levels that exceed the City's Noise Ordinance standard of 65 dBA Leq at a distance of 200 feet, which would occur during construction of both Phases 1 and 2 of the proposed Project.

In order to mitigate short-term noise level impacts associated with Phase 1 of the proposed Project's construction schedule, a 20-foot high temporary noise barrier with a minimum length of 1,100 feet would need to be erected along the northern property line, and an additional 20-foot high temporary construction noise barrier with a minimum length of 2,600 feet would be required along the eastern property line. During construction of Phase 2 of the proposed Project, a 20-foot high temporary construction noise barrier with a minimum length of 300 feet would need to be erected along the northern property line of Parcel 2, and an additional 20-foot high temporary construction noise barrier with a minimum length of 800 feet would be required along the eastern property line. All temporary construction noise barriers would be required to have a minimum Sound Transmission Class (STC) rating of 15. According to Urban Crossroads, the Project's noise consultant, the erection of temporary barriers during Phases 1 and 2 of Project construction would reduce noise levels affecting residential property to below the Noise Ordinance standard of 65 dBA Leq when measured at a distance of 200 feet (Urban Crossroads 2011e 4-5).

The temporary construction noise barriers have been evaluated by the Project Applicant's construction consultant (Oltmans Construction Co.), which determined that the erection of such temporary construction barriers would be infeasible. A copy of the correspondence from Oltmans Construction Co. is provided in *Technical Appendix L*. Specifically, temporary noise barriers would substantially interfere with construction of the proposed Project during both phases of construction, as follows:

- Earthwork would be adversely affected, as the posts holding up the noise barriers would hinder and prevent access of on-site tractors moving site dirt adjacent to the barricades.

- Installation of the underground sewer, water, fire sprinkler, and storm drain lines would be severely and adversely affected. To enable any digging for these critical service lines, removal of the noise barricades would be necessitated as these lines both traverse and parallel the location of the proposed barricades.

- Placement and construction of all curbs, gutters, and sidewalks would require removal of the barricades as they would directly interfere with the construction efforts required to achieve their successful placement (refer to EIR Chapter 3.0 for a detailed description of the proposed Project).

- Landscaping efforts would be compromised due to the location of the proposed noise barriers, adversely affecting successful placement of trees, shrubs, and required irrigation as detailed on the construction plans for the Project (refer to EIR Chapter 3.0 for a detailed description of the proposed Project).

- Construction (and subsequent removal) of the temporary noise barriers would result in a considerable elongation in the duration of construction activities, extending the time that other construction-related effects would occur.

Based on the analysis provided above, it is not feasible to construct 20-foot tall temporary noise barriers during Phases 1 and 2 of Project construction while accommodating construction activities that are necessary in order to implement the proposed Project. Even if temporary construction barriers were erected, they would need to be engineered to resist wind loads and be dismantled periodically during construction activities as necessary to accommodate necessary construction activities near the site boundaries and within adjacent roadways; such temporary removal of the noise barriers would result in the exposure of nearby residential properties to noise levels in excess of the City Noise Ordinance standard (noise levels would be similar to those presented on Figure 4.10-4 through Figure 4.10-9). Therefore, construction of 20-foot tall temporary noise barriers during Phases 1 and 2 of Project construction is concluded to be infeasible. A shorter barrier was considered, but would be ineffective because a shorter barrier would not obstruct the line-of-sight between the noise source and the sensitive receptors, thereby allowing noise to reach the receptors. There are no additional feasible mitigation measures to reduce the proposed Project's significant unavoidable construction-related noise impacts to a level below significant.

- Roadway Segment (Near-Term): Significant direct near-term impact to the roadway segment of Cactus Avenue west of Frederick Street (E+P), until the segment of Cactus between Frederick Street to Veterans Way is improved to three (3) travel lanes in the westbound direction.

For purposes of full disclosure and in an effort to satisfy CEQA Guidelines Section 15125(a), this EIR includes an analysis of traffic impacts that would be created if the proposed Project were placed upon the existing environment as of the date of this EIR's NOP (June 2011). The reason this particular analysis scenario is provided is to disclose the potential for direct impacts to the existing environment as required by CEQA. However, this scenario rarely materializes as an actual scenario in the real world. The time period between the date an NOP for an EIR is issued and the date project buildout occurs can often be a period of several years or more. In the case of the proposed Project, the time period estimated between this EIR's NOP (2011) and estimated Project buildout (2016) is five (5) years. During this time period, conditions are not static. Other projects are being constructed, the transportation network is evolving, and traffic patterns are changing. Therefore, this analysis scenario is very unlikely to materialize in real world conditions and thus does not accurately describe the environment that exists when a particular project is constructed and becomes operational (Urban Crossroads 2011f 99). As concluded in this EIR, if the Project were to be placed upon the existing transportation network, the Project would add 50 or more peak hour trips to the roadway segment of Cactus Avenue west of Frederick Street that operates at a deficient LOS under existing conditions.

A review of the peak hour operations at the adjacent intersection of Frederick Street and Cactus Avenue indicates that the intersection is projected to operate at an acceptable LOS. As such, it would appear that widening of this segment of Cactus Avenue is not necessary to achieve acceptable peak hour operations. The roadway segment immediately west of Frederick Street to Veterans Way is the only segment in the area not improved to three travel lanes in the westbound direction and is the likely cause of this roadway segment operating at an unacceptable LOS under existing conditions. Adding a third lane to this segment is beyond the scope of the Project and the impact would remain significant and unavoidable in the theoretical Existing Plus Project traffic condition. There is warehouse project (Plot Plan PA08-0072) proposed on the northwest corner of Frederick Street and Cactus Avenue that is currently in the City of Moreno Valley plan check process and is anticipated to begin construction in 2012. This warehouse project is conditioned to construct a five-lane section (three westbound and two eastbound lanes with a raised median) along Cactus Avenue, west of Frederick Street. The City of Moreno Valley anticipates that once this warehouse project constructs the five-lane section on Cactus Avenue, west of Frederick Street, there would no longer be a Project-related impact at this location.

- Roadway Segments and Intersections (Near-Term): Significant cumulative near-term impact to four (4) intersections (Heacock Street/Cactus Avenue, Indian Street/San Michele Road, Indian Street/Nandina Avenue, and Indian Street/Harley Knox Blvd.) and their adjoining roadway segments if needed improvements to these intersections cannot be feasibly assured before issuance of the Project's second building permit.

Many of the Project's cumulatively significant long-term impacts will be reduced to below a level of significance by the Project's required participation in the TUMF and City of Moreno Valley DIF programs by payment of fees for regional transportation improvements. Needed improvements to these four (4) intersections are not in the TUMF and DIF programs and funding mechanisms have not been established to enable the Project to contribute a fair share of improvement costs. Mitigation measures are presented in this EIR specifying fair-share fee payments, but the implementation of these measures and construction of the improvements cannot be assured. Additionally, one (1) intersection is in the City of Perris and one (1) intersection is shared between the City of Moreno

Valley and the March JPA. Construction of physical improvements that are outside of the control of the City of Moreno Valley cannot be assured.

- Roadway Segment (Long-Term): Significant cumulative long-term impact to the roadway segment of Indian Street between Iris Avenue and Gentian Avenue

  Under General Plan Buildout conditions, the roadway segment of Indian Street north of Iris Avenue is projected to operate at a deficient level of service, to which the Project would contribute 50 or more peak hour trips. A mitigation measures is presented in this EIR specifying a fair-share fee payment, but the implementation of this measure and construction of the improvements cannot be assured because a fee program does not currently exist for this roadway segment.

- Interstate 215 (Near Term): Significant cumulative near-term impact to four (4) I-215 freeway segments until such time as the planned widening of I-215 is complete.

The report titled "*Project Study Report/Project Development Support in Riverside County on I-215 and SR-60 between Nuevo Road (I-215) & I-215/SR-60 Junction and Box Springs Road (I-215) & Day Street (SR- 60)"* (prepared by Caltrans in April 2008), also known as the I-215 North Project, includes the construction of an high-occupancy vehicle lane in each direction of the I-215 Freeway between Nuevo Road and Box Springs Road within the existing median. Absent this improvement, all but one mainline segment (I-215 Southbound, North of Harley Knox) is anticipated to operate at an unacceptable LOS. The Project's contribution to cumulative impacts under Horizon Year (2016) conditions would involve only a small percentage of the forecast traffic (less than 1.5%) occurring on the identified segments in year 2016.

Because the City of Moreno Valley has no control over State facilities, and because the State facilities funded and planned to be developed under future traffic conditions are already anticipated to operate at LOS "F" even without the proposed Project, there are no further improvements that can be imposed upon the Project to mitigate its small cumulative contribution to significant impacts to the identified segments of I-215 Freeway under horizon year (2016) traffic conditions. Caltrans has exclusive control over State highway improvements and State highway improvements are by and large a matter of State-wide control.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE CAUSED BY THE PROPOSED PROJECT SHOULD IT BE IMPLEMENTED

The State CEQA Guidelines require EIRs to address any significant irreversible environmental changes which would be involved in the proposed action should it be implemented (CEQA Guidelines Section 15126.2[c]). An environmental change would fall into this category if: a) the project would involve a large commitment of non-renewable resources; b) the primary and secondary impacts of the project would generally commit future generations to similar uses; c) the project involves uses in which irreversible damage could result from any potential environmental accidents; or d) the proposed consumption of resources are not justified (e.g., the project results in the wasteful use of energy).

Determining whether the proposed Project may result in significant irreversible environmental changes requires a determination of whether key non-renewable resources would be degraded or

destroyed in such a way that there would be little possibility of restoring them. Natural resources in the form of construction materials and energy resources would be used in the construction of the proposed Project, but the development of the Project is not expected to negatively affect the availability of such resources, including resources that may be non-renewable (e.g., fossil fuels).

Implementation of the proposed Project would result in the commitment of future generations to business center land uses on the proposed Project site. Lands to the north and east of the proposed Project site similarly would be committed to long-term use as industrial developments. However, as demonstrated in the analysis presented throughout EIR Section 4.0, long-term operation of the proposed Project would not result in significant impacts to nearby properties. Although significant unavoidable long-term impacts would result from Project implementation (as summarized above in Subsection 5.1), such long-term impacts to air quality and transportation/traffic would not significantly impact any existing land uses (including sensitive receptors) within the Project vicinity. As such, there is no component of the proposed Project that would result in the commitment of future generations to light industrial land uses on properties that are not already designated for such use by the Moreno Valley General Plan and/or the Moreno Valley Industrial Area Plan.

EIR Subsection 4.7 provides an analysis of the proposed Project's potential to transport or handle hazardous materials which, if released into the environment, could result in irreversible damage to the environment. As concluded in the analysis, the proposed Project would be required to comply with federal, state, and local regulations related to hazardous materials, which would ensure that construction and long-term operation of the proposed Project would not have the potential to cause significant irreversible damage to the environment, including damage that may result from upset or accident conditions.

To reduce the Project's energy needs and fossil fuel consumption, and thereby reduce air emissions, the Project Applicant has committed to achieve certification of the March Business Center Project under the U.S. Green Building Council's LEED program. Following final building inspection, the Project Applicant will seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute. According to the United States Green Building Council (USGBC), and based on a study prepared by the National Buildings Institute (NBI), "…new buildings certified under the USGBC LEED certification systems are, on average, performing 25-30% better than non-LEED certified buildings in terms of energy use" (United States Green Building Council 2008). Therefore, the proposed Project would not result in the wasteful use of energy or the consumption of resources that are not justified based on the scale of the proposed Project.

5.3 GROWTH-INDUCING IMPACTS OF THE PROPOSED PROJECT

CEQA requires a discussion of the ways in which the proposed Project could be growth inducing. The CEQA Guidelines identify a project as growth inducing if it would foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment (CEQA Guidelines Section 15126.2(d)). New employees and new residential populations represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area.

Western Riverside County abuts San Bernardino County to the northeast, Orange County to the west and San Diego County to the south. These adjacent counties have large employment bases and given

Riverside County's close proximity to these adjacent counties, many Riverside County residents commute to jobs in adjacent counties. The California Employment Development Department (CEDD) reported that over 90,000 workers were commuting out of Riverside County in 2000 (CEDD, 2008)[1].

A project could indirectly induce growth at the local level by increasing the demand for additional goods and services associated with an increase in population or employment and thus reducing or removing the barriers to growth. This typically occurs in suburban or rural environs where population growth results in increased demand for service and commodity markets responding to the new population. Economic growth would likely take place as a result of the proposed Project's operation as a business park/light industrial development, but the intensity of economic growth would occur consistent with planned growth identified in the Riverside County General Plan and in the General Plans of adjacent jurisdictions. The Project is consistent with the Business Park/Light Industrial land use designation assigned to the property by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (MVIAP).

Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of little significance to the environment. Typically, growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population in excess of what is assumed in pertinent master plans, land use plans, or in projections made by regional planning agencies such as the Southern California Association of Governments (SCAG). Significant growth impacts could also occur if the project provides infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way.

Development of the Project with business park/light industrial land uses may place pressure on several surrounding parcels that are included within the MVIAP area, which are currently undeveloped, to implement the land uses specified by the MVIAP. However, these surrounding properties already are planned for such development, and implementation of the proposed Project would not directly promote growth on these adjacent and surrounding properties. Because this type of growth would be consistent with the City's General Plan and the MVIAP, growth-inducing impacts of the Project would be less than significant. The Project is not expected to induce growth or land use changes on other parcels in the vicinity, as other lands surrounding the site are either already developed or planned to be developed consistent with their General Plan and/or MVIAP land use designations.

Growth project quantifications for the Project are most meaningful for the geographic area covered by the Western Riverside County Council of Governments (WRCOG). This area includes the cities of Calimesa, Canyon Lake, Corona, Hemet, Lake Elsinore, Moreno Valley, Murrieta, Norco, Perris, Riverside, San Jacinto, and Temecula, as well as portions of unincorporated Riverside County (including the new city of Menifee which was not yet incorporated at the time SCAG forecasts were published). SCAG's most recently adopted Integrated Growth Forecast (SCAG, 2008) for the WRCOG area is reflected below in Table 5-1, *SCAG Growth Forecasts for the WRCOG Region.*

[1] As of June 2011, the California Employment Development Department had not yet released County-to-County commuter data based on the 2010 Census.

The proposed Project is consistent with those forecasts, in that the forecasts considered City General Plan buildout.

Table 5-1 SCAG Growth Forecasts for the WRCOG Region

CATEGORY	YEAR 2010	YEAR 2015	YEAR 2020	YEAR 2025	YEAR 2030	YEAR 2035
Population	1,735,426	1,918,962	2,096,544	2,262,992	2,414,256	2,550,867
Households	546,047	609,219	671,933	727,622	780,743	828,547
Employment	588,523	691,260	797,626	901,163	1,005,923	1,098,233

Source: SCAG, Regional Transportation Plan (RTP), 2008.

"Jobs-to-housing ratio" measures the extent to which job opportunities in a given geographic area are sufficient to meet the employment needs of area residents. However, as noted in the City's General Plan, "The land use plan allows for an adequate number of jobs to meet the needs of local residents" (Page 2-6). The proposed Project is consistent with the General Plan's land use designation for the site; therefore, the proposed Project would assist the City in improving the jobs-housing ratio, which under existing conditions is lower than the statewide and regional average (indicating the City of Moreno Valley and surrounding areas experience a relatively low jobs-to-housing ratio).

The Project site is currently undeveloped. Lands immediately abutting the site include vacant land designated for development with business park/light industrial land uses, existing residential uses, and the March Air Reserve Base. Development in the area is occurring in accordance with the City of Moreno Valley General Plan and MVIAP, and in a phased manner with a logical extension of utility and infrastructure improvements. Implementation of the proposed Project would not stimulate growth in the area beyond that anticipated by the City of Moreno Valley General Plan.

Indirect growth-inducing impacts at the local level result from a demand for additional goods and services associated with the increase in people in the area, including employees. This occurs in suburban or rural environments where population growth results in increased demand for service and commodity markets responding to the new population. This type of growth is, however, a regional phenomenon resulting from introduction of a major employment center or regionally significant housing project. The implementation of the proposed Project would result in growth-inducing impacts of the region, but not beyond that which is already envisioned by the General Plan.

5.4 EFFECTS FOUND NOT TO BE SIGNIFICANT AS PART OF THE INITIAL STUDY PROCESS

Section 15128 of the CEQA Guidelines requires that an EIR:

> *"…contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR."*

An Initial Study was prepared for the proposed Project, which is included as *Technical Appendix A* to this EIR. Through the Initial Study process, the City of Moreno Valley determined that the proposed Project could potentially cause adverse effects, and an EIR is required. Five environmental issues were found not to have the potential to cause significant adverse effects: agricultural resources,

mineral resources, population and housing, public services, and recreation. Therefore, these issue areas are not required to be discussed in Section 4.0, *Environmental Analysis*, of this EIR. A brief summary of issues found not to be significant is presented below.

5.4.1 AGRICULTURAL RESOURCES

The Project site contains lands classified as "Farmland of Local Importance" and "Urban and Built-Up Land," and does not contain any soils mapped by the State Department of Conservation as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (as illustrated on City of Moreno Valley General Plan FEIR Exhibit 5.8-1, *Important Farmlands*). There are no General Plan policies requiring conservation of Farmland of Local Importance. As such, a significant impact due to the conversion of important farmland types would not occur with implementation of the Project.

The Project site is not within an agricultural preserve, nor is it subject to a Williamson Act contract according to the City of Moreno Valley General Plan EIR. Under existing conditions, the Project site is comprised of vacant, undeveloped land. The northern portion of the proposed Project site is thought to have been used for agricultural production as early as 1938, although this portion of the site was used for stables and a training center for racehorses between 1953 and 1967. During this time, large areas of the northern portions of the site were used for pasture. The southern portion of the proposed Project site also is thought to have been used for pasture between approximately 1977 and 1989. (SCS Engineers 2006 7-9)

The area immediately surrounding the Project site area is comprised of an air base, vacant land and residential development. The Project site is zoned for industrial land uses and the immediate surrounding area is zoned for industrial land uses. Because the Project site is not in or adjacent to an agricultural preserve and neither the Project site nor any immediately surrounding property is zoned for agricultural use, the proposed Project would not conflict with an existing agricultural use, zoning, or a Williamson Act contract. No impact would occur.

The proposed Project site is located in an area that has been largely developed, with an air base located immediately to the west of the site, industrial land uses located to the south of the site, and residential land uses located to the north and northeast of the site. Properties adjacent to the Project site have either been developed or are planned for development. In addition, and as noted above, there are no nearby properties designated or zoned for agricultural use. As such, implementation of the proposed Project would not result in any other changes to the environment that could result in the conversion of farmland to non-agricultural use.

Therefore, a significant impact to agricultural resources would not occur with Project implementation.

5.4.2 MINERAL RESOURCES

The Project site is not located within an area of known to be underlain by regionally- or locally-important mineral resources, or within an area that has the potential to be underlain by regionally- or locally-important mineral resources, as disclosed by the City's General Plan and the associated General Plan FEIR. Accordingly, implementation of the proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State of California. In addition, the City's General Plan does not identify any locally-

important mineral resource recovery sites on site or within close proximity to the Project site. Accordingly, impacts to mineral resources would not occur.

5.4.3 POPULATION AND HOUSING

The proposed Project would develop the subject property with a business center in accordance with the Business Park/Light Industrial land uses designation applied to the site by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan. Accordingly, the Project would not result in growth that was not already anticipated by the City of Moreno Valley General Plan and evaluated in the City of Moreno Valley General Plan FEIR. The Project would include the installation of off-site sewer infrastructure; however, the proposed off-site sewer line has been sized to serve the Project and does not contain adequate excess capacity to support substantial, unplanned, additional growth. As such, implementation of the Project would not result in direct or indirect growth in the area, and impacts are evaluated as less than significant.

The Project site is vacant under existing conditions and contains no residential structures. Accordingly, implementation of the Project would not displace housing or people, and would not necessitate the construction of replacement housing elsewhere. Significant impacts would not occur.

Therefore, the proposed Project would not result in a significant impact to population/housing.

5.4.4 PUBLIC SERVICES

With development of the Project site, the Riverside County Fire Protection Master Plan would require that the Project achieve an Urban-Category I level of service, which requires a fire station to be within 1.5 roadway miles of the Project and a full first alarm assignment team operating on the scene of a fire within 10 minutes of a dispatch. The proposed Project would be primarily served by the Kennedy Park Fire Station (Station No. 65), an existing station located approximately 1.2 roadway miles north of the Project, which would meet the Urban-Category I service criteria established by the Riverside County Fire Department. The proposed Project also will be conditioned to provide a minimum of fire safety and support fire suppression activities, including type of building construction, fire sprinklers, a fire hydrant system and paved access to the proposed Project area. Furthermore, the proposed Project is required to comply with the provisions of the City of Moreno Valley's Development Impact Fee Ordinance (Ordinance No. 695), which requires a fee payment that the City applies to the funding of public facilities, including fire protection facilities. Mandatory compliance with the Development Impact Fee Ordinance would be required prior to the issuance of building permits. Based on the foregoing, the proposed Project would receive adequate fire protection service, and would not result in the need for new or physically altered fire protection facilities. Impacts to fire protection facilities are therefore evaluated as less than significant.

The development of the subject property with business park/light industrial land uses would introduce new structures and employees to the Project site. This increase in the developed environment would result in an incremental increase in demand for police protection services, would not require or result in the construction of new or physically altered police facilities. Prior to the issuance of building permits, the Project Applicant would be required to comply with the provisions of the City of Moreno Valley's Development Impact Fee Ordinance (Ordinance No. 695), which requires a fee payment that the City applies to the funding of public facilities, including police facilities. Based on the foregoing, the proposed Project would receive adequate police protection service, and would not result in the need for new or physically altered police protection facilities.

Impacts to police protection facilities are therefore evaluated as less than significant and no further analysis of this issue area is warranted.

The Project would not create a direct demand for public school services, as the subject property would be developed solely with business park/light industrial land uses and would not generate any school-aged children requiring public education. The addition of employment uses on the Project site would assist in the achievement of the City's goal to provide a better jobs/housing balance within the City and the larger western Riverside County region (City of Moreno Valley General Plan FEIR). Thus, the Project would not draw new residents to the region and would therefore not indirectly generate additional school-aged students requiring public education. Because the project would not directly generate students and is not expected to indirectly draw students to the area, the proposed Project would not result in the need to construct new or physically altered public school facilities. Although the Project would not create a demand for additional public school services, the Project Applicant would be required to contribute development impact fees to the Val Verde Unified School District, in compliance with California Senate Bill 50 (Greene). Mandatory payment of school fees would be required prior to the issuance of building permits. Project-related impacts to public schools are evaluated as less than significant and no additional analysis of this issue is required.

As discussed in Subsection 5.4.5, below, the proposed Project would not create a demand for public park facilities and would not result in the need to modify existing or construct new park facilities. Accordingly, implementation of the Project would not adversely affect any park facility and impacts are regarded as less than significant.

The proposed Project would not result in a demand for other public facilities/services, including libraries, community recreation centers, and animal shelters. As such, implementation of the Project would not adversely affect other public facilities or require the construction of new or modified facilities.

Therefore, a significant impact to public services would not occur with development of the proposed Project.

5.4.5 RECREATION

The Project proposes to develop the site solely with business park/light industrial land uses. The Project does not propose any type of residential use or other land use that may generate a population that would increase the use of existing neighborhood and regional parks or other recreational facilities in the vicinity. Accordingly, implementation of the Project would not result in the increased use or substantial physical deterioration of an existing neighborhood or regional park.

The proposed Project would develop the site with four buildings to accommodate business park/light industrial land uses. The Project does not propose to construct any new on- or off-site recreational facilities and would not expand any existing off-site recreational facilities. Therefore, adverse environmental impacts related to the construction or expansion of recreational facilities would not occur with implementation of the Project.

As such, implementation of the proposed Project would not result in any significant impacts associated with recreational facilities.

6.0 ALTERNATIVES TO THE PROPOSED PROJECT

Section 15126.6(a) of the State CEQA Guidelines indicates the scope of alternatives to a proposed project that must be evaluated:

> "*An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selection of a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.*"

As discussed in Section 4.0 of this EIR, the proposed Project would result in significant adverse environmental effects to air quality, noise, and traffic that cannot be mitigated to below levels of significance after the implementation of Project design features, mandatory regulatory requirements, and feasible mitigation measures. The unavoidable significant impacts are:

- Air Quality (Construction-Related Near Term)

  Significant direct and cumulative near-term impact to air quality during construction of Phase 1 of the proposed Project due to an excedance of the SCAQMD regional thresholds for NO_X, emissions, which also would contribute to an existing air quality violation within the SCAB (i.e., non-attainment status for ozone) because NO_X is a precursor for ozone.

- Air Quality (Long-Term)

  Significant direct and cumulative long-term impact to air quality due to an excedance of the SCAQMD regional thresholds for VOC and NO_X emissions, which also would contribute to an existing air quality violation within the SCAB (i.e., non-attainment status for ozone) because both NO_X and VOC emissions are a precursor for ozone.

- Noise (Construction-Related Near-Term)

  Significant direct and cumulative near-term impact to noise due to the exposure of nearby residential properties to noise levels that exceed the City's Noise Ordinance standard of 65 dBA Leq at a distance of 200 feet, which would occur during construction of both Phases 1 and 2 of the proposed Project.

- Traffic (Near-Term)

Significant direct near-term impact to the roadway segment of Cactus Avenue west of Frederick Street (E+P), until the segment of Cactus between Frederick Street to Veterans Way is improved to three (3) travel lanes in the westbound direction.

Significant cumulative near-term impact to four (4) intersections (Heacock Street/Cactus Avenue, Indian Street/San Michele Road, Indian Street/Nandina Avenue, and Indian Street/Harley Knox Blvd.) and their adjoining roadway segments if needed improvements to these intersections cannot be feasibly assured before issuance of the Project's second building permit.

- Traffic (Long-Term)

Significant cumulative long-term impact to the roadway segment of Indian Street between Iris Avenue and Gentian Avenue, which is calculated to operate at a deficient level of service with and without the proposed Project at General Plan Buildout.

CEQA Guidelines Section 15126.6(e) requires that an alternative be included that describes what would reasonably be expected to occur on the property in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services. This is considered to be the No Project Alternative. The No Project Alternative, described in detail below, is identified as the most environmentally superior alternative. CEQA requires that if the environmentally superior alternative is determined to be a No Project Alternative, then another environmentally superior alternative should be identified among the other alternatives, if the analysis indicates that significant impacts can be avoided by one or more of the other alternatives. Therefore, the Vacant Lot/Business Center Alternative is selected as the environmentally superior alternative.

6.1 ALTERNATIVES UNDER CONSIDERATION

The following scenarios have been identified as potential alternatives to implementation of the proposed Project.

❑ Alternative 1 – No Project Alternative

The No Project Alternative assumes that the Project site would be left in its existing condition. This alternative was selected by the Lead Agency to compare the environmental effects of the Project against leaving the property in its existing state. The proposed Project implements the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208). If the Project were not approved, it is reasonable to expect that the property would remain vacant for the foreseeable future.

❑ Alternative 2 – Vacant Lot/Business Center Alternative

The Vacant Lot/Business Center Alternative considers development of the site in a way that would reduce or avoid near-term impacts during the Project's construction phase. Under this Alternative, no construction activities would occur on site within 1,100 feet of the property's northeastern corner, creating a distance between construction activities and sensitive receptors (residential homes) located to the northeast. However, and pursuant to City requirements, construction activities associated with frontage improvements along Iris Avenue still would be required. This Alternative was selected for consideration by the Lead Agency because two (2) of the Project's significant unavoidable impacts

(noise and air quality) would occur during the construction phase; reducing the extent of construction activity by increasing the distance between construction and sensitive receptors has the potential to reduce or avoid these significant impacts. Under this alternative, the northeastern quadrant of the property would remain vacant and no construction activities would occur in this area, with exception of frontage improvements to Iris Avenue. The resulting building area on the Project's proposed Parcel 1 would be reduced and building space on the property as a whole would be lowered to approximately 762,800 s.f.

❑ Alternative 3 – Small Building Alternative

The Small Building Alternative considers development of Parcel 1 of the proposed Project with buildings that are smaller than 50,000 s.f. in size instead of the single 1,103,003 s.f. building proposed by the Project. Under this alternative, approximately 30 to 40 buildings ranging in size from 10,000 s.f. to 50,000 s.f. would be constructed on Parcel 1, while buildings and construction characteristics on Parcels 2 through 4 would be identical to the proposed Project. Table 6-1, *Small Building Alternative Statistical Summary,* provides a summary of proposed building area and FAR under this alternative. Implementation of this alternative would result in an overall reduction in building area on site by approximately 168,003 s.f., or a reduction of 11.3%, as compared to the proposed Project. Development of Parcel 1 would occur over four (4) development phases (or 5 phases for the entire Project site), and would take approximately eight to twelve years to complete. In general, land uses on Parcel 1 would largely comprise light industrial, light manufacturing, assembly, and small-scale warehousing uses. This Alternative was selected for consideration by the Lead Agency to determine if any of the Project's near-term construction or long-term operational significant and unavoidable impacts could be reduced or avoided by constructing smaller buildings on the Parcel 1 while maintaining consistency with the property's Industrial designation under the Moreno Valley Industrial Area Plan.

Table 6-1 Small Building Alternative Statistical Summary

PARCEL	NET PARCEL SIZE	TOTAL BUILDING AREA	FAR[1]
1	2,077,688 s.f.	935,000 s.f.	0.45
2	512,072 s.f.	277,243 s.f.	0.54
3	258,479 s.f.	87,429 s.f.	0.34
4	67,144 s.f.	16,732 s.f.	0.25
Total	**2,915,383 s.f.**	**1,316,404 s.f.**	**0.45**

[1] Floor Area Ratio (FAR) is calculated by dividing the maximum building square footage by the net square footage of the parcel on which the building is located. Total FAR is calculated by dividing the total square footage of all buildings by the total net square footage of the parcels on which they would be located.

6.2 ALTERNATIVES CONSIDERED AND REJECTED

An EIR is required to identify any alternatives that were considered by the Lead Agency but were rejected as infeasible. Among the factors described by CEQA Guidelines Section 15126.6 in determining whether to exclude alternatives from detailed consideration in the EIR are: a) failure to meet most of the basic project objectives, b) infeasibility, or c) inability to avoid significant environmental impacts. With respect to the feasibility of potential alternatives to the proposed Project, CEQA Guidelines Section 15126.6(f)(1) notes:

> *"Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries…and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site…"*

In determining an appropriate range of alternatives to be evaluated in this EIR, a number of possible alternatives were initially considered and, for a variety of reasons, rejected. Alternatives were rejected because either: 1) they could not accomplish the basic objectives of the Project, 2) they would not have resulted in a reduction of significant adverse environmental impacts, or 3) they were considered infeasible to construct or operate. The reason for not selecting each alternative is discussed below.

❑ Alternative Sites

CEQA does not require that an analysis of alternative sites always be included in an EIR. However, if the surrounding circumstances make it reasonable to consider an alternative site then this alternative should be considered and analyzed in the EIR. In making the decision to include or exclude analysis of an alternative site, the "*key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR*" [CEQA Guidelines §15126.6(f)(2)].

The Project's proposed industrial business center land uses are consistent with the Business Park/Light Industrial and Commercial land use designations applied to the property by the City of Moreno Valley General Plan and as further detailed by the Industrial and Industrial Support Areas designations applied to the property by the Moreno Valley Industrial Area Plan (Specific Plan 208). An examination of alternative sites is typically not necessary when a proposed development project is consistent with the applicable land use plan, because it can reasonably be assumed that development would ultimately occur in conformance with the applicable land use designation, whether by the Project Applicant or by others in the future. In cases where a proposed project is consistent with the applicable General Plan, the alternatives analysis should typically focus on options for developing the site consistent with adopted plan policies and the discussion of alternatives should search for an environmentally superior version of the project on the site instead of an alternative site.

Regardless, alternative site locations were considered. Based on a general review of vacant sites and a specific review of eight (8) properties that are identified for industrial development in the I-215 corridor within the City of Moreno Valley and nearby locations within the City of Riverside and the City of Perris, it has been determined that there are no feasible alternative locations for development with industrial land uses by the Project Applicant. The eight specific sites evaluated are located in the area bound by Rider Street to the south, Iris Avenue to the north, Perris Boulevard to the east, and Seaton Avenue to the west. The Project Applicant does not own or control any properties within the City of Moreno Valley or immediately surrounding area that are of similar in size as the proposed Project site, and there are no suitable vacant sites available for sale by the current property owners. Additionally, and as noted above, even if the proposed Project were not developed at its currently

proposed location, it is reasonable to conclude that the Project site ultimately would be developed by others in the future pursuant to the MVIAP's designation of the site for "Industrial" land uses.

Furthermore, the property is generally flat and is highly disturbed due to past activities and regular disking. The site's vegetation consists of mostly of ruderal species. The site is not located within an MSHCP Criteria Area and potential impacts to one sensitive species (burrowing owl) would be reduced to below a level of significance in accordance with MSHCP requirements. The property is surrounded by March Air Reserve Base to the west and properties approved for the construction of industrial land uses to the immediate north and east. Property located to the south is also designated for industrial development and one industrial building has already been constructed. Few other properties in the City of Moreno Valley and western Riverside County would offer less developmental and environmental constraints, or fewer environmental impacts than the proposed Project site. Development of the Project in an alternate location would have similar impacts as would occur with implementation of the Project at its proposed location. For these reasons, an alternative sites analysis is not required for the proposed Project.

❑ Existing Krameria Avenue Alignment Alternative

The Project proposes a General Plan Amendment (PA11-0001) and a Specific Plan Amendment (P11-004) to modify the Circulation Element of the City of Moreno Valley General Plan and to amend the Moreno Valley Industrial Area Plan (Specific Plan 208). The proposed modifications consist of changes to the planned alignment and classification of a segment of Krameria Avenue between Heacock Street and proposed Cosmos Street. The City's General Plan and Specific Plan 208 call for Krameria Avenue to be extended to Heacock Street diagonally across the southern portion of the Project site (parallel with the Perris Valley Storm Drain Channel) and meeting Heacock Street at an oblique angle. An alternative to the Project was considered that retained the planned alignment of Krameria Avenue. However, because retaining the planned alignment would not reduce any of Project's adverse impacts to the environment and because the proposed alignment change would improve the local circulation system by providing 90 degree intersections, the Existing Krameria Avenue Alignment Alternative was rejected from further consideration.

6.3 ALTERNATIVES ANALYSIS

The following discussion compares the impacts of each alternative considered by the Lead Agency with the impacts of the proposed Project, as detailed in Section 4.0, Environmental Analysis, of this EIR. A conclusion is provided for each impact as to whether the alternative results in one of the following: (1) reduction or elimination of the proposed Project's impact, (2) a greater impact than would occur under the proposed Project, (3) the same impact as the proposed Project, or (4) a new impact in addition to the proposed Project's impacts. Table 6-1 at the end of this section compares the environmental hazard and resource impacts of the alternatives with those of the proposed Project and identifies the ability of the Alternative to meet the basic objectives of the Project. As described in EIR Subsection 3.2, the proposed Project's objectives are:

A. To develop a business center in conformance with the land use designations applied to the property by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208).

B. To develop a business center that can accommodate light industrial and warehouse distribution tenants within close proximity to regional transportation routes.

C. To develop a business center that is financially feasible to construct and operate.

D. To make efficient use of a property by achieving a minimum Project-wide floor area ratio (FAR) of 0.50.

E. To attract new businesses and jobs to the City of Moreno Valley, thereby providing a more equal jobs/housing balance both in the City and in Riverside County and reducing the need for members of the existing local workforce to commute outside the area for employment.

F. To modify the planned alignment of Krameria Avenue to enable efficient development of the Project site and improve circulation and public safety within the area of the Moreno Valley Industrial Area Plan.

G. To develop a business center with an architectural design and operational characteristics that are complementary with existing and planned development in the immediate vicinity.

H. To construct a business center that incorporates energy efficiency and low water use principles in order to increase environmental quality during construction and operation.

6.3.1 ALTERNATIVE 1 – NO PROJECT ALTERNATIVE

The No Project Alternative allows decision-makers to compare the impacts of approving the proposed Project against the impacts that would occur if the property were to remain undeveloped for the foreseeable future. The 75.05-acre Project site in its existing condition contains no structures and is covered with ruderal vegetation that is routinely maintained (*i.e.*, disced) for fire management. The property is flat with no unique topographic or geologic features. Refer to the description of the Project site's existing physical conditions in Section 2.0 of this EIR.

Selection of the No Project Alternative would prevent the Project site from being developed but would not necessarily prevent the Project or another project of its nature from being located in another location in response to the demand for industrial business park space in western Riverside County. As discussed above, an examination of alternative sites is not required in this EIR because the Project is consistent with its General Plan and Specific Plan land use designations and locating the Project on an alternative site would not be environmentally superior. Nonetheless, the Lead Agency recognizes that selection of the No Project Alternative would not reduce the market demand for industrial business park space in western Riverside County.

❑ Land Use

Under the No Project Alternative, no development would occur on the property. The development of an industrial business center would not take place and no new structures would be introduced on the site. Additionally, frontage roadway improvements would not occur adjacent to the property.

The No Project Alternative would be inconsistent with the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (MVIAP), which designate the Project site for the development of industrial land uses. Improvement of Iris Avenue and Heacock Street would not

occur along the site's frontage and Krameria Avenue would not be extended through the property, which would be inconsistent with the General Plan Circulation Element and MVIAP which call for improvements to these roadways. The No Project Alternative also would be inconsistent with the site's zoning designation of Industrial (I). Although policy inconsistencies would occur with the General Plan and the MVIAP, impacts would not be regarded as significant because no adverse physical impacts to the environment would occur as a result of the inconsistency. Leaving the property in a vacant condition would not cause conflicts with adjacent land uses, nor would it conflict with programs and policies adopted for the purposes of avoiding environmental impacts. Fire suppression by disking would continue to occur. Neither the proposed Project nor the No Project Alternative would result in significant or cumulatively considerable impacts associated with land use.

❑ Aesthetics

The Project site does not contain any unique aesthetic resources, nor does it serve as a prominent scenic vista. In addition, the Project site is not visible from any state or locally-designated scenic highways. Under the No Project Alternative, the existing visual character and quality of the site would be maintained in its existing condition. No structures, landscaping, or sources of artificial light would be introduced on the property. Therefore, this Alternative would result in no impact to aesthetics, positive or negative. The Project's less than significant aesthetic impacts during construction and at buildout would be avoided with the selection of this Alternative.

❑ Air Quality

As identified in EIR Subsection 4.2 the proposed Project would result in significant and unmitigable impacts to air quality in the near-term due to NO_X emissions during construction and in the long-term due to VOC and NO_X emissions from Project operation. No development would occur on the Project site under the No Project Alternative; therefore, there would be no sources of air pollutant emissions. Selection of this Alternative would avoid all of the proposed Project's near- and long-term air quality impacts.

❑ Biological Resources

Vegetation on the Project site is highly disturbed due to past uses of the site and required routine discing. As such, the Project site's vegetation is dominated by ruderal plant species. Habitat is provided on the property for the burrowing owl and other listed migratory birds, such as raptors. Under the No Project Alternative, the Project site would remain in its existing condition and the Project's impacts to biological resources would not occur.

❑ Cultural Resources

The No Project Alternative would result in no grading; therefore, no impacts to subsurface paleontological or archaeological resources would occur. Selection of this Alternative would avoid all site disturbances.

❑ Geology and Soils

The No Project Alternative would result in no grading; therefore, no impacts to geology or soils would occur. Because no structures would be constructed, there would be no increased seismic risks to structures associated with seismically induced ground shaking and no potential for soil instability to affect structures. Selection of this Alternative would avoid the Project's impacts to geology and

soils. Neither the proposed Project nor the No Project Alternative would result in significant or cumulatively considerable impacts to geology and soils.

❑ Greenhouse Gas Emissions

The analysis in EIR Subsection 4.6 demonstrates that the proposed Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing greenhouse gasses. Therefore, Project-related emissions of greenhouse gasses would be less than significant on both a direct and cumulative basis. Regardless, greenhouse gasses would be emitted during construction and operation of the Project. Global climate change occurs as the result of global emissions of green house gasses. Neither the proposed Project nor the No Project Alternative would result in significant or cumulatively considerable impacts associated with greenhouse gas emissions. Regardless, selection of the No Project Alternative would eliminate greenhouse gas emissions that would be generated by development on the Project site.

❑ Hazards and Hazardous Materials

Because no development would occur under the No Project Alternative, no impacts related to hazards or hazardous materials would occur. Hazardous materials would not be used on the site or transported to the site. The existing groundwater monitoring wells would remain in their existing location and no wells would be relocated as proposed by the Project. Fire suppression by routine discing would be required to continue on the property. Selection of this Alternative would avoid the Project's impacts related to hazards and hazardous materials.

❑ Hydrology and Water Quality

No changes to existing hydrology and drainage conditions would occur under the No Project Alternative. No stormwater improvements would be constructed and rainfall would be discharged from the site as sheet flow, as occurs under existing conditions. Neither the proposed Project nor the No Project Alternative would result in substantial alterations to the drainage pattern of the site. Accordingly, implementation of the proposed Project and the No Project Alternative would both result in less than significant impacts to existing drainage patterns.

Because buildings, roadways, and parking lots would not occur on the site under this Alternative, an increase of impervious surfaces and urban pollutants would not occur. However, under this Alternative, water leaving the site would not be filtered and would continue to contain sediment and other potential pollutants, as occurs under existing conditions. The potential for water quality impacts from an urban pollutant nature would be reduced, but the potential for water quality impacts associated with sedimentation would be increased under this alternative. Implementation of the No Project Alternative would result in a reduced impact to hydrology and water quality as compared to the proposed Project, although erosion and sedimentation would continue to occur as water sheet flows off of the site's surface. Selection of this Alternative would reduce the Project's impacts to hydrology and water quality with the exception of long-term sedimentation impacts, which would be greater than would occur under the proposed Project.

❑ Noise

Because no construction would occur on the property, the Project's significant and unavoidable impact associated with construction noise would be avoided. Additionally, because no development would occur on the site and no new traffic trips would be generated, the No Project Alternative

would not contribute to an incremental increase in area-wide noise levels. Also, there would be no sources of stationary noise introduced on the site. Selection of this Alternative would avoid all of the Project's noise impacts.

❑ Transportation/Traffic

Because development of the site would not occur, no traffic would be generated by the No Project Alternative. No contributions to the TUMF program or the City of Moreno Valley DIF program would be made under this Alternative and no road or intersection improvements at the Project's frontage would occur. Krameria Avenue also would not be extended through the property. The significant and unavoidable traffic impacts of the proposed would be avoided through selection of the No Project Alternative. However, because frontage improvements to Iris Avenue and Heacock Street would not be constructed, the capacity of these facilities would be adversely affected in the near-term (i.e., until the improvements are constructed by others), and thereby potentially impact regional circulation flow. Local traffic flow also would be affected in the near-term because a segment of Krameria Avenue would not be constructed. The non-vehicular transportation network also would be affected, as no sidewalk or bikeway improvements would be installed at the Project's frontage and no easement would be provided for a future transit stop. Selection of this Alternative would avoid the Project's impacts to transportation/traffic, but would create a potential new impact associated with obstructing improvements to Iris Avenue, Heacock Street and Krameria Avenue as called for by the City's General Plan Circulation Element and MVIAP. The ability to construct regional transportation improvements also may be affected because there would be no contribution from the Project site toward TUMF and DIF fees that are relied upon for area-wide improvements.

❑ Utilities and Service Systems

No additional domestic water or sewer facilities would be needed for the No Project Alternative, and no domestic water use or sewerage generation increases would occur. Also, this alternative would not generate increases in the demand for solid waste collection and disposal and would not generate increased demand for energy and utilities such as electricity, gas, and communications systems. Neither the proposed Project nor the No Project Alternative would result in significant or cumulatively considerable impacts to utilities and service systems. Nonetheless, selection of this Alternative would avoid all of the Project's demand placed on utilities and service systems.

❑ Conclusion

Implementation of the No Project Alternative would result in no physical environmental impacts beyond those that have historically occurred on the property. All significant effects of the proposed Project would be avoided or lessened by the selection of this Alternative. However, the No Project Alternative would not construct improvements to Iris Avenue, Heacock Street, and Krameria Avenue, which may result in adverse effects on the local and regional circulation network under near-term conditions. Erosion and sedimentation would continue under existing conditions.

The No Project Alternative would fail to meet all of the Project's objectives. This Alternative would fail to develop an industrial business center to attract new businesses and jobs in Moreno Valley in order to provide a more equal jobs/housing balance. Furthermore, retention of the site in its existing undeveloped condition would be inconsistent with the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan, which call for development of the site with industrial land uses. Moreover, selection of the No Project Alternative, while preventing development of the property,

would not result in a reduction in demand for industrial business park development in western Riverside County; thus, it is likely for the Project's environmental impacts to occur elsewhere rather than be avoided.

6.3.2 ALTERNATIVE 2 – VACANT LOT/BUSINESS CENTER ALTERNATIVE

The Vacant Lot/Business Center Alternative considers development of the site in a way that would increase the distance between construction activities and off-site sensitive receptors located to the northeast. Under this Alternative, no construction activities would occur within 1,100 feet of the property's northeastern corner, with the exception of frontage improvements to Iris Avenue. The northeastern quadrant of the property would remain as a vacant lot and no construction activities would occur in this area.

For purposes of analysis, this Alternative assumes that the total building space on the property would be reduced to approximately 762,800 s.f. (a 49% overall reduction compared to the proposed Project). The following building types are assumed: 554,486 s.f. of high cube warehouse, 174,858 s.f. of warehouse, and 33,464 s.f. of light industrial. This represents elimination of the proposed Project's largest building (on Parcel 1) and the construction of two identical (paired) buildings as designed for the Project's Parcels 2, 3, and 4. Thus, this Alternative considers the construction of six (6) buildings on 47 acres. The remaining 28 acres of the property would be left vacant.

Selection of the Vacant Lot/Business Park Alternative would reduce the amount of building space constructed on the Project site but would not necessarily prevent the building space that could have been developed on the 28-acre vacant lot from being located in another location in response to the demand for industrial business park space in western Riverside County. As discussed above, an examination of alternative sites is not required in this EIR because the Project is consistent with its General Plan and Specific Plan land use designations and locating the Project (or in this case, a portion of the Project) on an alternative site would not be environmentally superior. Nonetheless, the Lead Agency recognizes that selection of the Vacant Lot/Business Park Alternative would not reduce the market demand for industrial business park space in western Riverside County.

- **Land Use**

This Alternative would be consistent with the City of Moreno Valley General Plan and MVIAP land use designations as applied to approximately 47 acres of the property. The remaining approximately 28 acres of the property would be left as a vacant lot, which is inconsistent with the City of Moreno Valley General Plan and MVIAP that designate the entire Project site for the development of industrial land uses. The portion of the site left vacant also would be inconsistent with the site's zoning designation of Industrial (I). Although policy inconsistencies would occur with the General Plan and the MVIAP, impacts would not be regarded as significant because no adverse physical impacts to the environment would occur as a result of the inconsistency. This portion of the site would continue to be disked to reduce the potential for fire hazards. Leaving approximately 28 acres of the property in a vacant condition would not cause conflicts with adjacent land uses, nor would it conflict with programs and policies adopted for the purposes of avoiding environmental impacts. Neither the proposed Project nor the Vacant Lot/Business Center Alternative would result in significant or cumulatively considerable impacts to land use.

❑ Aesthetics

Under the Vacant Lot/Business Center Alternative, the aesthetics of the built environment would be relatively similar to that of the Project on the approximately 47 acres that would be developed as an industrial business park. Development would be required to comply with all applicable development regulations and design standards of the MVIAP. The aesthetics of the remaining approximately 28 acres of the property would be characteristic of a vacant lot. Aesthetic impacts associated with the short-term presence of construction equipment would be reduced because less area of the property would be under construction. This Alternative would have aesthetic benefits (reducing short-term aesthetic impacts during construction) and aesthetic adversities (presence of an unmaintained vacant lot adjacent to a segment of Iris Avenue). Neither the proposed Project nor the Vacant Lot/Business Center Alternative would result in significant or cumulatively considerable impacts to aesthetics.

❑ Air Quality

Because the Vacant Lot/Business Center Alternative would have a reduced construction footprint as compared to the proposed Project, the length of time that construction-related emissions would occur during grading, paving, and building construction would be reduced by approximately six (6) months as compared to the proposed Project. The Alternative would not eliminate the significant and unavoidable construction-related air quality impact because emission levels would remain the same on the days that construction would occur. The SCAQMD significance thresholds used in this EIR are based on emission levels per day, not total emissions. Therefore, despite the reductions in construction activities, emissions of NO_X would still exceed SCAQMD thresholds even with the incorporation of required conditions of approval and mitigation measures. None of the Project's significant short-term air quality impacts would be avoided, but the length of time that they would occur would be reduced.

Long-term vehicle emissions would be reduced under this Alternative due to a reduction in the total traffic volume from 4,400 to 2,926 average daily trips in passenger car equivalents (PCEs). Although this Alternative represents a 49% reduction in building space, it represents only a 33.5% reduction in PCEs because the uses that would occupy the smaller buildings assumed under this Alternative have a higher trip generation rate than the high-cube warehouse building that is proposed by the Project on its Parcel 1. Additionally, when PCEs are converted to actual vehicle trips, air emissions would be reduced by an even lesser percentage (about 30%) because fewer large axel trucks would be attracted under this Alternative in favor of more passenger vehicles and small axel trucks.

As with the proposed Project, long-term vehicular emissions of VOC and NO_X would exceed the SCAQMD significance thresholds, but to a lesser degree of severity. Other emission volumes also would drop, but would be less than significant under both the proposed Project and this Alternative. Long-term impacts would continue to result in a conflict with the SCAQMD's Air Quality Management Plan (AQMP) and would contribute to the region's inability to meet the California Ambient Air Quality Standards (CAAQS). Selection of the Vacant Lot/Business Center Alternative would, however, offer a reduction in long-term air quality impact severity as compared to the proposed Project due to the fewer number of vehicle trips generated.

This Alternative would be subject to the same regulatory requirements and mitigation measures identified in Subsection 4.3 of this EIR. Both the proposed Project and this Alternative would result

in significant unavoidable air quality impacts in the near- and long-term, but the extent of the impact would be reduced with selection of the Vacant Lot/Business Center Alternative.

❑ Biological Resources

This Alternative would physically disturb 28 fewer acres than the proposed Project. As such, this Alternative would reduce the potential impact to burrowing owl habitat on the property, but not to below a level of significance as burrowing owl habitat would still be impacted on the developed portions of the property. As no other aspect of these 28 acres are biologically sensitive, other impacts to biological resources (including permits required for drainage outlets into the Perris Valley Storm Drain Channel) would be identical as compared to the proposed Project. This Alternative would be subject to the same regulatory requirements and mitigation measures identified in Subsection 4.4 of this EIR. Both the proposed Project and the Vacant Lot/Business Center Alternative would result in significant biological resources impacts requiring mitigation but the extent of impacts to sensitive species would be reduced by the selection of this Alternative.

❑ Cultural Resources

The Vacant Lot/Business Center Alternative would physically disturb 28 less acres of property than the proposed Project. Regardless, there are no historic resources on the property and no known or recorded archaeological or paleontological resources. This Alternative would be subject to the same regulatory requirements identified in Subsection 4.5 of this EIR. Impacts would be less than significant under both the proposed Project and this Alternative.

❑ Geology and Soils

The Vacant Lot/Business Center Alternative would physically disturb 28 less acres of property than the proposed Project. Thus, there would be a concomitant reduction in the potential for geology and soils impacts associated with construction activities. This Alternative would be subject to the same regulatory requirements identified in Subsection 4.6 of this EIR. Neither the proposed Project nor the Vacant Lot/Business Center Alternative would result in significant or cumulatively considerable impacts to geology and soils.

❑ Greenhouse Gas Emissions

The analysis in EIR Subsection 4.6 demonstrates that the proposed Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing greenhouse gasses. Therefore, Project-related emissions of greenhouse gasses would be less than significant on both a direct and cumulative basis. Regardless, greenhouse gasses would be emitted during construction and operation of the Project. Global climate change occurs as the result of global emissions of greenhouse gasses. Similar to the discussion of Air Quality, above, developing fewer acres of the property as assumed under this Alternative would reduce construction-related emissions as well as long-term emissions associated with fewer vehicle trips generated from the property. Thus, a lesser volume of greenhouse gasses would be emitted from uses on the property than would occur under the proposed Project. Selection of this Alternative would not reduce the market demand for industrial space in the region, however, and the selection of this Alternative would likely represent a redistribution of greenhouse gas sources rather than a reduction of total greenhouse gas volumes. As with the proposed Project, the mitigation measures identified in EIR Subsection 4.6.7 would be required for this Alternative. Although neither the proposed Project nor the Vacant Lot/Business Center Alternative would result in significant greenhouse gas emission impacts, selection of this

Alternative would result in a lesser volume of greenhouse gasses emitted into the environment as a direct result of developing the Project site.

❑ Hazards and Hazardous Materials

The Vacant Lot/Business Center Alternative would physically disturb 28 less acres of property and construct 49% less building space than the proposed Project, resulting in a concomitant reduction in the use of hazardous substances during construction and operation. Because a lesser amount of construction materials would be used, there would be a lower potential for the improper use, transportation, and handling of hazardous materials during construction. As with the proposed Project, the same number of groundwater monitoring wells would require relocation and regulatory measures identified in EIR Subsection 4.7 would be identical for the Project and this Alternative.

Land uses that would occur on the site under the Vacant Lot/Business Center Alternative would be similar in character to those proposed by the Project, with the greatest difference being a reduction in high cube warehouse space. The type and amount of hazardous materials located on the property during operation could be reduced with lesser building space. If businesses that use or store hazardous materials occupy buildings on the Project site, the business owners and operators would be required to comply with all applicable federal, state, and local regulations to ensure proper use, storage, emission, and disposal of hazardous substances. With mandatory regulatory compliance, neither the proposed Project nor this Alternative would be expected to pose a significant hazard to the public or the environment.

❑ Hydrology and Water Quality

This Alternative would physically disturb 28 fewer acres than the proposed Project. Thus, there would be a lesser potential for temporary soil erosion to occur during construction. A Stormwater Pollution Prevention Program (SWPPP) would be required to be implemented for both this Alternative or the proposed Project and less than significant impacts during construction would occur in either case.

Because fewer buildings, roadways, and parking lots would occur on the site under this Alternative, there would be less impervious surfaces and a lower potential for urban pollutants. However, under this Alternative, water leaving the 28-acre vacant lot would not be filtered and would continue to contain sediment and other potential pollutants, as occurs under existing conditions. The drainage system design of this Alternative's 47-acre development area would need to accommodate sheet flow and manage pollutants and sediments carried in the sheet flow from this vacant lot. Implementation of the Vacant Lot/Business Center Alternative would result in generally the same hydrology and water quality conditions as compared to the proposed Project. The same regulatory requirements would be imposed as listed in EIR Subsection 4.8. With mandatory regulatory compliance, neither the proposed Project nor this Alternative would result in significant hydrology or water quality impacts.

❑ Noise

Because construction would not occur within 1,100 feet of the nearest sensitive receptor (residential properties located northeast of the Project site), except during the construction of frontage improvements along Iris Avenue, the Project's significant and unavoidable construction-related noise impact would be reduced. However, since construction activities still would occur within 1,100 feet

of sensitive receptors (i.e., during the improvements to Iris Avenue along the frontage of the proposed Project site), the proposed Project's significant and unavoidable near-term noise impacts would be reduced but would not be fully avoided by the selection of this Alternative. Additionally, there would be few constraints to erecting a temporary noise barrier along the northern edge of the 47-acre development area, which would further reduce the temporary noise impact.

With respect to operations, the Vacant Lot/Business Center Alternative would result in permanent long-term increases to noise levels above ambient conditions, but slightly less than would occur under the proposed Project, as the result of vehicle trip reductions. Because this Alternative would generate approximately 30% fewer daily traffic trips, it is expected that this Alternative would also reduce off-site noise levels. Additionally, the potential for stationary noise sources to affect off-site sensitive receptors would be reduced, as the nearest operational noise would be located at a distance of 1,100 feet to the closest sensitive receptor. In summary, selection of this Alternative would reduce and possibly avoid the Project's near-term unavoidable construction-related noise impact and would offer a reduction in stationary noise and vehicular-related noise impacts as compared to the proposed Project.

- **Transportation/Traffic**

Implementation of the Vacant Lot/Business Center Alternative would result in the generation of approximately 2,926 average daily trips in passenger car equivalents (PCEs), compared to 4,400 that would be generated by the proposed Project. Although this Alternative represents a 49% reduction in building space, it represents only a 33.5% reduction in PCEs because the uses that would occupy the smaller buildings assumed under this Alternative have a higher traffic trip generation rate than the high-cube warehouse building that is proposed by the Project on its Parcel 1. Although there would be a decrease in average daily trips under this Alternative, it is not anticipated that this Alternative would be able to substantially reduce the proposed Project's identified transportation/traffic impacts.

Furthermore, because less development would occur, fee contributions to the TUMF program and the City of Moreno Valley DIF program would be reduced, which could affect the ability to implement planned regional transportation improvements.

In summary, although the selection of this Alternative would reduce the extent of the Project's impacts to transportation/traffic, the Project's direct and cumulative impacts still would occur, but to a lesser degree. . The ability to construct regional transportation improvements also may be affected because there would be a lower contribution from the Project site toward TUMF and DIF fees that are relied upon for area-wide improvements.

- **Utilities and Service Systems**

The Vacant Lot/Business Center Alternative would reduce the demand for water and sewer as compared to the proposed Project because less building space would be constructed. The demand for solid waste collection and landfill disposal capacity would also be reduced, as would energy consumption and utility usage during construction and operational phases.

Implementation of the Vacant Lot/Business Center Alternative would result in a reduced demand for water and wastewater services, as compared to the Project, but the facilities required to service the site would be the same under the proposed Project and this Alternative. Thus, this Alternative would result in identical physical impacts to construct utilities and service systems as the proposed Project.

Also, under both this Alternative and the proposed Project, compliance with recycling programs would be required to reduce solid waste volumes deposited to landfills. Neither the proposed Project nor the Vacant Lot/Business Center Alternative would result in significant impacts to utilities and service systems.

❑ **Conclusion**

The Vacant Lot/Business Center Alternative would meet some of the Project's objectives, although to a lesser degree than the proposed Project due to the reduction in building space. The land use designations applied to the property by City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan would not be realized on 28 acres of the property. Additionally, the property would not be efficiently used and fewer jobs would be created as compared to the proposed Project.

Because less area of the property would be disturbed by construction, there would be a lesser extent of impact to aesthetics, biological resources, and geology/soils. Construction-related impacts associated with air quality, greenhouse gas emissions, hydrology and water quality, and hazardous materials also would be reduced. The Project's significant and unavoidable construction-related noise impact would be reduced, but would not be completely avoided.

In the long-term, because the maximum building area would be reduced, this Alternative would result in a corresponding reduction in air quality, noise, transportation/traffic and utilities and service system impacts directly associated with the property. The Project's significant unavoidable impacts associated with air quality emissions and transportation/traffic would be reduced but not avoided. The Vacant Lot/Business Center Alternative would not result in increased impacts to any environmental issue area in comparison to the proposed Project. However, while selection of this Alternative may reduce the severity of impacts resulting from the development of this property, it would not result in a reduction in demand for industrial business park space in western Riverside County; thus, it is likely that the reduced level of environmental impact achieved through this Alternative would be displaced to another property rather than avoided.

6.3.3 ALTERNATIVE 3 – SMALL BUILDING ALTERNATIVE

The Small Building Alternative considers developing Parcel 1 with 30 to 40 light industrial buildings that would range in size from 10,000 s.f. to 50,000 s.f. Buildings on Parcels 2 through 4 would be identical to the proposed Project. This Alternative assumes the construction of 1,316,404 s.f. of building space over the entire 75.05-acre property (as shown in Table 6-1) and construction of the same circulation system improvements as proposed by the Project (frontage improvements to Iris Avenue and Heacock Street, construction of Cosmos Street, and construction of a segment of Krameria Avenue through the site). Due to the increase in the number of buildings proposed on Parcel 1, construction on Parcel 1 would occur over 4 phases (or 5 phases for the entire Project site), and would take approximately eight to twelve years to complete (as compared to approximately four years for the proposed Project).

❑ **Land Use**

The land uses that would occur on the property under this Alternative would be consistent with those permitted by the Industrial designation applied to the property by the Moreno Valley Industrial Area Plan (Specific Plan No. 208). However, because buildings would be restricted in size, future tenants generally would consist of light industrial, light manufacturing, assembly, and small-scale

warehousing uses, such as: furniture and household furnishings; durable medical produces; clothing; construction services; plumbing supplies; electronics; appliances; and storage of retail goods.
As with the proposed Project, there would be no significant adverse land use impacts associated with this Alternative.

❑ Aesthetics

Neither the proposed Project nor the Small Building Alternative would negatively impact views from any state- or locally-designated scenic highway segment due to distance and intervening development. Also, neither this Alternative nor the proposed Project would damage scenic on-site resources, because such resources are not present on the property. Aesthetics of the property after development would be similar to that of the Project, although there would be more buildings with more tenants, some of which may have outdoor storage. Neither the proposed Project nor this Alternative would result in significant direct or cumulatively considerable aesthetic impacts.

❑ Air Quality

Although this Alternative would result in a reduction in building area on site, the proposed Project's significant and unavoidable construction-related air quality impact would not be reduced because emission levels would remain the same on the days that construction would occur. The SCAQMD significance thresholds used in this EIR are based on emission levels per day, not total emissions. Therefore, despite the reductions in construction activities associated with the erection of buildings, emissions of NO_X would still exceed SCAQMD thresholds even with the incorporation of required conditions of approval and mitigation measures. None of the Project's significant short-term air quality impacts would be avoided, and the length of time that they would occur would be increased because this Alternative proposes the construction of 29 to 39 more buildings on site as compared to the proposed Project over a longer period of time (eight to 12 years as compared to four years).

For long-term operations, the Small Building Alternative would result a reduction in building square footage to 1,316,404 s.f. (a reduction of 11.3% compared to the proposed Project); however, the number of total vehicle trips in PCEs would more than double, from 4,400 daily PCEs under the proposed Project to 9,769 PCEs (using a "general light industrial" ITE trip rate) under this Alternative. This increase is due to the higher volume of traffic that is attracted to light industrial land uses than to large warehouse (high cube and general warehouse) buildings (refer to Section 4.1 of the Project's Traffic Impact Analysis [*Technical Appendix J*] for additional discussion of trip generation rates). Due to the substantial increase in vehicle trips, air quality impacts would be severely worsened by the selection of the Small Building Alternative. None of the Project's significant short-term and long-term air quality impacts would be avoided. In fact, they would be worsened and additional air quality impacts would occur.

❑ Biological Resources

This Alternative would physically disturb the same amount of acreage as the proposed Project. As such, this alternative would have identical biological resource impacts as compared to the proposed Project and would be subject to the same regulatory requirements and mitigation measures. Under both the proposed Project and this Alternative, impacts to biological resources would be reduced to below a level of significance.

❑ Cultural Resources

This Alternative would physically disturb the same amount of acreage as the proposed Project, to identical depths. As such, this Alternative would have identical cultural resources impacts as compared to the proposed Project and would be subject to the same regulatory requirements and mitigation measures. Under both the proposed Project and this Alternative, impacts to cultural resources would be reduced to below a level of significance.

❑ Geology and Soils

This Alternative would physically disturb the same amount of acreage as the proposed Project and conduct the same amount of grading. As such, this Alternative would have identical geology and soils impacts as compared to the proposed Project and would be subject to the same regulatory requirements. Neither the proposed Project nor this Alternative would result in significant geology and soils impacts.

❑ Greenhouse Gas Emissions

The analysis in EIR Subsection 4.6 demonstrates that the proposed Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing greenhouse gasses. Therefore, Project-related emissions of greenhouse gasses would be less than significant on both a direct and cumulative basis. Regardless, greenhouse gasses would be emitted during construction and operation of this Alternative. Global climate change occurs as the result of global emissions of green house gasses. Due to the extended duration of construction activities, this Alternative would result in an increase in the amount of near-term greenhouse gas emissions that would be generated as compared to the proposed Project. This Alternative also would generate a higher volume of air emissions during long-term operation due to an approximate 120% increase in the number of vehicle trips. Regardless, the Small Building Alternative would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing greenhouse gasses. As with the proposed Project, the mitigation measures identified in EIR Subsection 4.6.7 would be required for this Alternative. Although neither the proposed Project nor this Alternative would result in significant greenhouse gas emission impacts, selection of this Alternative would result in a greater volume of greenhouse gasses emitted into the environment as a direct result of developing the Project site.

❑ Hazards and Hazardous Materials

This Alternative would physically disturb the same amount of acreage as the proposed Project, to identical depths. As such, this Alternative would have identical hazardous materials impacts associated with hazardous materials during construction and would be subject to the same regulatory requirements and mitigation measures. Although a slightly higher quantity of construction materials would be used (due to the substantial increase in the number of buildings on site), this Alternative and the proposed Project would have the same or similar potential for the improper use, transportation, and handling of hazardous materials during construction. Accordingly, this Alternative would result in similar impacts as the proposed Project, and would require the same mitigation measures associated with groundwater monitoring well relocation to reduce impacts to below the level of significance.

Land uses that would occur on site under the Small Building Alternative would have the same or similar potential to handle and store hazardous materials as would the proposed Project. If businesses that use or store hazardous materials occupy buildings on the Project site, the business

owners and operators would be required to comply with all applicable federal, state, and local regulations to ensure proper use, storage, emission, and disposal of hazardous substances. With mandatory regulatory compliance, neither the Small Building Alternative nor the proposed Project would be expected to pose a significant hazard to the public or the environment.

❑ Hydrology and Water Quality

This Alternative would physically disturb the same amount of acreage as the proposed Project. As such, this Alternative would have identical hydrology and water quality impacts during construction as compared to the proposed Project and would be subject to the same regulatory requirements.

In the long-term, the same or similar amount of impervious surface coverage would occur, resulting in the same or similar potential for urban pollutants to be carried into the storm water drainage system. The potential for water quality impacts from an urban pollutant nature would be the same under this Alternative and the proposed Project. The same regulatory requirements would be imposed as listed in EIR Subsection 4.8. With mandatory regulatory compliance, neither the proposed Project nor this Alternative would result in significant hydrology or water quality impacts.

❑ Noise

Because the Small Building Alternative would have similar grading and construction requirements as the proposed Project, construction-related noise impacts during grading and construction would be the same or similar as the Project. As such, this Alternative would also result in a significant and unavoidable noise impact during its construction phase. However, construction activities would occur over a much longer duration due to the extended construction schedule that would result from the construction of 30 to 40 buildings on Parcel 1 (eight to 12 years instead of four years under the proposed Project); therefore, near-term significant and unmitigable impacts due to noise would increase under this alternative as compared to the proposed Project.

With respect to operations, the Small Building Alternative would result in permanent long-term increases to noise levels above ambient conditions, due to on-site operations and on- and off-site traffic. Although the Small Building Alternative would result a reduction in building square footage to 1,316,404 s.f. (a reduction of 11.3% as compared to the proposed Project), the number of total vehicle trips in PCEs would more than double, from 4,400 daily PCEs to 9,769 PCEs. Due to the substantial increase in vehicle trips, off-site noise impacts would be increased as compared to the proposed Project and additional off-site noise impacts may occur.

❑ Transportation and Traffic

Implementation of the Small Building Alternative would result in the generation of approximately 9,769 average daily trips in passenger car equivalents (PCEs), compared to 4,400 that would be generated by the proposed Project. Although this Alternative represents an 11.3% reduction in building space, it represents a 120% increase in PCEs because the uses that would occupy the site have a higher traffic trip generation rate than the high-cube warehouse building and general warehouse buildings that are proposed by the Project on its Parcel 1. (The “general light industrial” ITE trip rate was used to calculate traffic generation for this Alternative). This increase in traffic would increase the severity of traffic impacts identified for the proposed Project and would very likely create additional direct and cumulative impacts.

❑ Utilities and Service Systems

The Small Building Alternative would result in a reduced demand for water and sewer as compared to the proposed Project due to the reduced amount of building square footage. The demand for solid waste collection and landfill disposal capacity would also be slightly reduced. Neither the proposed Project nor this Alternative would result in significant utilities and service system impacts.

❑ Conclusion

The Small Building Alternative would meet not most of the Project's objectives. However, this Alternative would not meet the Project's objective to achieve a 0.5 or higher FAR (this Alternative only would achieve an FAR of 0.45). Additionally, this Alternative would be less effective in meeting the Project's objective to accommodate warehouse distribution land uses on site, and also would be less effective than the proposed Project in creating new jobs.

Because the entire property would be disturbed by construction, near-term construction related impacts would be identical for this Alternative and the proposed Project, with the exception of near-term noise impacts. Since construction activities on Parcel 1 would occur over a much longer time frame, near-term construction-related noise also would impact nearby sensitive receptors over a longer duration. In the long-term, the Small Building Alternative would lessen demand on utilities and services but would not reduce or avoid any of the Project's other environmental impacts and would create additional impacts and more severe impacts associated with air quality, greenhouse gas emissions, noise, and traffic due to the generation of a 120% higher volume of vehicle trips.

Table 6-1 ALTERNATIVES - COMPARISON OF ENVIRONMENTAL IMPACTS

ENVIRONMENTAL TOPIC	PROPOSED PROJECT SIGNIFICANCE OF IMPACTS AFTER MITIGATION	LEVEL OF IMPACT COMPARED TO THE PROPOSED PROJECT		
		NO PROJECT ALTERNATIVE	VACANT LOT/BUSINESS CENTER ALTERNATIVE	SMALL BUILDING ALTERNATIVE
Land Use	Less Than Significant	Same	Same[2]	Same
Aesthetics	Less than Significant	Avoided	Mixed[3]	Same
Air Quality	Significant	Avoided	Mixed[3]	Increased[5]
Biological Resources	Less than Significant	Avoided	Reduced	Same
Cultural Resources	Less than Significant	Avoided	Reduced	Same
Geology and Soils	Less than Significant	Avoided	Reduced	Same
Greenhouse Gas Emissions	Less than Significant	Avoided	Reduced[4]	Increased
Hazards and Hazardous Materials	Less than Significant	Avoided	Reduced	Same
Hydrology and Water Quality	Less than Significant	Mixed[1]	Mixed[1]	Same
Noise	Significant	Avoided	Reduced	Increased
Transportation/Traffic	Significant	Avoided	Reduced	Increased[5]
Utilities and Service Systems	Less than Significant	Avoided	Reduced	Reduced
ABILITY TO MEET THE BASIC OBJECTIVES OF THE PROJECT[6]				
Objective A:		No	Yes, but to a lesser degree	Yes
Objective B:		No	Yes, but to a lesser degree	Yes, but to a lesser degree
Objective C:		No	Yes, but to a lesser degree	Yes
Objective D:		No	No	No
Objective E:		No	Yes, but to a lesser degree	Yes, but to a lesser degree
Objective F:		No	Yes	Yes
Objective G:		No	Yes	Yes
Objective H:		No	Yes	Yes

1. Impacts reduced except for erosion-related impacts, which would be increased.
2. Inconsistencies with the City of Moreno Valley General Plan and MVIAP would occur, but these inconsistencies would not create adverse impacts to the physical environment.
3. Construction-related impacts reduced. Long-term impacts increased.
4. Impact associated with development of the Project site is reduced. Impact likely displaced and not reduced overall.
5. Construction-related impacts are the same. Increased long-term impacts associated with a greater volume of vehicle trips.
6. Refer to EIR Subsection 3.2 for a list of the proposed Project's basic objectives.

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7.1 EIR PREPARERS

7.1.1 CITY OF MORENO VALLEY COMMUNITY & ECONOMIC DEVELOPMENT DEPARTMENT, PLANNING DIVISION

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7.1.2 T&B PLANNING, INC.

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Degrees: B.S.; Natural Resources Planning, 1999
M.S.; Urban and Regional Planning, 2001
Certifications: American Institute of Certified Planners, 2011

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Degrees: B.A.; Urban Studies and Planning, 2006

Robyn Barber, Environmental Analyst
Degrees: B.A.; Environmental Geology and Environmental Studies, 2002
M.P.A; Urban and Regional Affairs and Policy Research and Analysis, 2004

Eric Horowitz, GIS Manager
Degrees: B.A.; Urban and Regional Planning, 1996
M.S.; Geographic Information Systems, 2003
Certifications: Geographic Information Systems Professional, 2009

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7.5 DOCUMENTS APPENDED TO THIS EIR

The following reports, studies, and supporting documentation were used in preparing the March Business Center EIR and are bound separately as Technical Appendices. A copy of the Technical Appendices is available for review at the City of Moreno Valley Community and Economic Development Department, Planning Division, 14177 Frederick Street, Moreno Valley, California, 92552.

Appendix A Initial Study for March Business Center, Notice of Preparation, and Written Comments.

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Appendix L Written Correspondence.

Final Environmental Impact Report
SCH No. 2011061033

March Business Center

Moreno Valley, California
EIR Case P11-005

Lead Agency
The City of Moreno Valley
14177 Frederick Street
PO Box 88005
Moreno Valley, CA 92552

Date: November 19, 2012

Final Environmental Impact Report
SCH No. 2011061033

March Business Center
Moreno Valley, California
EIR Case P11-005

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Lead Agency Discretionary Permits
General Plan Amendment (PA11-0001)
Specific Plan Amendment (P11-004)
Tentative Parcel Map No. 35879 (PA11-0007)
Master Plot Plan (PA11-0002)
Building Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006)

Date: November 19, 2012

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B2: Mobile Source Health Risk Assessment
C: Biological Resources Report
D: Cultural Resources Report
E: Geotechnical Investigation
F: Greenhouse Gas Analysis
G1: Phase I Environmental Assessment
G2 Addendum to Phase I Environmental Assessment
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ACRONYMS

Acronym	Definition
§	Section
µg/m^3	micrograms (one-millionth of a gram) per cubic meter
AB	Assembly Bill
ACOE	Army Corps of Engineers
ADP	Area Drainage Plan
ADT	Average Daily Traffic
AF	acre-feet
AFY	acre-feet per year
AICUZS	Air Installation Compatible Use Zone Study
a.m.	Ante Meridiem (between the hours of midnight and noon)
AMSL	above mean sea level
APN	Assessor Parcel Number
APS	alternative planning strategy
APZ	Accident Potential Zone
AQMP	Air Quality Management Plan
ARB	Air Reserve Base
AST	above-ground storage tank
AWS	All-Way Stop
BMPs	best management practices
BP	Business Park/Light Industrial land use designation
C	Capacity -or- Commercial land use designation
C_2F_6	hexafluoroethane
C_2H_6	ethane
C&D	Construction and Demolition
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CadnaA	Computer Aided Noise Abatement computer program
CalEEMod™	California Emissions Estimator Model™
CalEPA	California Environmental Protection Agency
CalGreen	California Green Building Standards Code
CalTech	California Institute of Technology
Caltrans	California Department of Transportation
CAPSSA	Criteria Area Plant Species Survey Area
CARB	California Air Resources Board
CBSC	California Building Standards Code
CAT	Climate Action Team
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CEC	California Energy Commission
CEDD	California Employment Development Department
CEQA	California Environmental Quality Act

Acronym	Definition
CESA	California Endangered Species Act
CETAP	Community & Environmental Transportation Acceptability Process
CFC	chlorofluorocarbon
CFR	Code of Federal Regulations
CGS	California Geological Survey
CF_4	tetrafluoromethane
Ch.	Chapter
CH_4	methane
CHP	combined heat and power
CIWMP	Countywide Integrated Waste Management Plan
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
COG	council of governments
COHb	carboxyhemoglobin
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
Corps	United States Army Corps of Engineers
CPUC	California Public Utilities Commission
CSS	Cross-Street Stop
CWA	Clean Water Act
CWC	California Water Code
CWC	Clean Water Code
CZ	Clear Zone
dB	decibel
dBA	A-weighted decibel
DBESP	Determination of Biologically Equivalent or Superior Alternative
DEH	Department of Environmental Health
DIF	Development Impact Fee
DTSC	Department of Toxic Substances Control
E+A	Existing Plus Ambient Growth Conditions
E+A+C	Existing Plus Ambient Growth Plus Cumulative Conditions
E+A+C+P	Existing Plus Ambient Growth Plus Cumulative Plus Project Conditions
E+A+P	Existing Plus Ambient Growth Plus Project Conditions
E+P	Existing Plus Project Conditions
EIR	Environmental Impact Report
EMFAC	Emission FACtor model
EMWD	Eastern Municipal Water District
EPA	Environmental Protection Agency
EPS	emission performance standard
EW	East West

Acronym	Definition
°F	degrees Fahrenheit
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
GCC	Global Climate Change
GHG	greenhouse gas
GIS	Geographic Information System
GLA	Glenn Lukos Associates
GV#	Growth Visioning Principle Number
GWP	Global Warming Potential
H_2O	water vapor
HANS	Habitat Evaluation and Acquisition Negotiation Strategy
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HEC-RAS	ACOE's Hydrologic Engineering Center's River Analysis System software
HETs	high-efficiency toilets
HFC	hydrofluorocarbon
HMIS	Hazardous Materials Inventory Statement
HMBEP	Hazardous Materials Business Emergency Plan
HMMP	Hazardous Materials Management Plan
HPLV	High Pressure Low Volume
HSC	California Health and Safety Code
HSR	high speed rail
HVWAP	Harvest Valley/Winchester Area Plan
I	Industrial zoning designation
I-15	Interstate 15
I-215	Interstate 215
IA	Implementing Agreement
IBC	International Building Code
ID	Identification
IPA	Inland Port Airport
IRWMP	Integrated Regional Water Management Plan ("sOne Water One Watershed")
ISCST3	Industrial Source Complex-Short Term dispersion model
ITE	Institute of Transportation Engineers
ITS	intelligent transportation systems
JD	jurisdictional determination
JPA	Joint Powers Authority
JPR	Joint Project Review
lb	pound
LCA	life cycle analysis

Acronym	Definition
LCFS	low carbon fuel standard
LEED	Leadership in Energy and Environmental Design
Leq	equivalent level
LOS	Level of Service
LNAP	Lakeview/Nuevo Area Plan
MAFB	March Air Force Base (1918-1996)
MARB	March Air Reserve Base
MBTA	Migratory Bird Treaty Act
MDP	Master Drainage Plan
mg/L	milligrams per liter
MJPA	March Joint Powers Authority
MM	Mitigation Measure
MMRP	Mitigation, Monitoring, and Reporting Program
$MMTCO_2e$	million metric tons of carbon dioxide equivalent
MMTs	million metric tons
$MTCO_2e$	metric tons of carbon dioxide equivalent
MND	Mitigated Negative Declaration
MPH	miles per hour
MPO	metropolitan planning organization
MSHCP	Multiple Species Habitat Conservation Plan
MT	metric ton
MUTCD	Manual on Uniform Traffic Control Devices
MVAP	Mead Valley Area Plan
MV	City of Moreno Valley
MVFD	Moreno Valley Fire Department
MVIAP	Moreno Valley Industrial Area Plan
MVTM	Moreno Valley Traffic Model
MWD	Metropolitan Water District
N/A	not applicable
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NB	Northbound
n.d.	not dated
NEPSSA	Narrow Endemic Plant Species Survey Area
No.	number
N_2	nitrogen
NO	nitric oxide
NOP	Notice of Preparation
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
N_2O	nitrous oxide
NPDES	National Pollution Discharge Elimination System
NPL	National Priority List
NS	North South

Acronym	Definition
O_2	oxygen
O_3	ozone
OHWM	Ordinary High Water Mark
Ord.	Ordinance
P11-004	proposed Specific Plan Amendment
P11-005	City of Moreno Valley EIR for the March Business Center Project
PA11-007	proposed Tentative Parcel Map No. 35879
PA11-0001	proposed General Plan Amendment
PA11-0002	proposed Master Plot Plan
PA11-0003	proposed Building Plot Plan for Parcel 1
PA11-0004	proposed Building Plot Plan for Parcel 2
PA11-0005	proposed Building Plot Plan for Parcel 3
PA11-0006	proposed Building Plot Plan for Parcel 4
Pb	lead
pc/mi/ln	passenger cars per mile per lane
PCBs	polychlorinated biphenyls
PCEs	Passenger Car Equivalents
PeMS	Performance Measurement System
Perris	City of Perris
PCE	passenger car equivalent
PFC	perfluorocarbon
PHF	Peak Hour Factor
p.m.	Post Meridiem (between the hours of noon and midnight)
$PM_{2.5}$	fine particulate matter (2.5 microns or smaller)
PM_{10}	fine particulate matter (10 microns or smaller)
ppb	parts per billion
ppm	parts per million
ppt	parts per trillion
PR	Project Requirement
Project	March Business Center Project
RCALUC	Riverside County Airport Land Use Commission
RCALUCP	Riverside County Airport Land Use Compatibility Plan
RCCDR	Riverside County Center for Demographic Research
RCFCWCD	Riverside County Flood Control and Water Conservation District
RCIP	Riverside County Integrated Project
RCP	Regional Comprehensive Plan
RCTC	Riverside County Transportation Commission
RCTLMA	Riverside County Transportation and Land Management Agency
RCWMD	Riverside County Waste Management Department
RGL	Regulatory Guidance Letter
RivCo	Riverside County
ROG	Reactive Organic Gas
RTA	Riverside Transit Agency

Acronym	Definition
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agency
RW	right-of-way
RWQCB	Regional Water Quality Control Board
s.f.	square feet
SARWQCB	Santa Ana Regional Water Quality Control Board
SAWPA	Santa Ana Watershed Project Authority
SB	Southbound -or- Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCH	California State Clearinghouse (Office of Planning and Research)
SCS	Sustainable Communities Strategy
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SLF	sacred lands file
SO_2	sulfur dioxide
SO_4	sulfates
SO_X	sulfur oxides
SR-60	State Route 60
SR-91	State Route 91
SRA	source receptor area
SWH	solar water heaters
SWPPP	Stormwater Pollution Prevention Plan
TDS	total dissolved solids
TIA	Traffic Impact Analysis
TM	Tentative Map
TNW	Traditional Navigable Water
TPM	Tentative Parcel Map
TS	Traffic Signal
TUMF	Transportation Uniform Mitigation Fee
UNFCCC	United Nations' Framework Convention on Climate Change
USFWS	United States Fish and Wildlife Service
U.S.	United States
USAF	United States Air Force
USGS	United States Geological Survey
UST	underground storage tank
UWMP	Urban Water Management Plan
V	Volume
V/C	Volume/Capacity (Volume to Capacity Ratio)
VMT	vehicle miles traveled
VOC	volatile organic compounds

Acronym	Definition
WMI	Watershed Management Initiative
WQMP	Water Quality Management Plan
WRCOG	Western Riverside Council of Governments
WRP	Waste Recycling Plan

F.0 FINAL ENVIRONMENTAL IMPACT REPORT

F.1 INTRODUCTION TO THE FINAL ENVIRONMENTAL IMPACT REPORT (FEIR)

This Final Environmental Impact Report (FEIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) as amended (Public Resources Code Section 21000 et seq.) and CEQA Guidelines (Title 14, California Code of Regulations, Section 15000 et seq.).

According to CEQA Guidelines Section 15132, the Final EIR shall consist of:

a. The draft EIR or a revision of the draft;

b. Comments and recommendations received on the draft EIR either verbatim or in summary;

c. A list of persons, organizations, and public agencies commenting on the draft EIR;

d. The responses of the Lead Agency to significant environmental points raised in the review and consultation process; and

e. Any other information added by the Lead Agency.

In accordance with the above listed requirements, this FEIR for General Plan Amendment (PA11-0001), Specific Plan Amendment (P11-004), Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan (PA11-0002), four (4) individual Building Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006), and associated discretionary actions consists of the following:

1. Comment letters and responses to public comment; and

2. The circulated March Business Center EIR and Technical Appendices, SCH No. 2011061033 with additions shown as underline text and deletions shown as ~~stricken~~ text in Subsection F.2.3, below.

This FEIR document has been prepared in accordance with CEQA and the CEQA Guidelines and represents the independent judgment of the Lead Agency (City of Moreno Valley).

F.2 RESPONSES TO COMMENTS

Section 15088 of the CEQA Guidelines requires the Lead Agency (City of Moreno Valley) to evaluate comments on environmental issues received from public agencies and interested parties who reviewed the Draft EIR and to provide written responses to any substantive comments received. This Section F.0, "Final Environmental Impact Report," provides all comments received on the Draft, the City's response to each comment, and a summary of revisions made to the Draft EIR as part of the FEIR in response to the various comment letters.

A total of twelve (12) comment letters were received, including letters that were received during the public comment period (which closed on June 11, 2012) and letters that were received shortly after the comment period closed. A copy of each comment letter and a response to each substantive environmental point raised in those letters is included in Subsection F.2.4. No comments submitted to the City of Moreno Valley on the Draft EIR have produced substantial new information requiring recirculation or additional environmental review under State CEQA Guidelines Section 15088.5.

On the following pages, each comment letter is assigned a letter reference and each substantive comment is numbered. Responses to the numbered comments follow the letters. A list of agencies, organizations, and persons that submitted comments on the Draft EIR during the public review period is presented in Table F-1, *List of Persons, Organizations, and Public Agencies that Commented on the Draft EIR*. The State Clearinghouse letter appears first, followed by letters from federal, state, regional, and local agencies, organizations, and persons.

Table F-1 List of Persons, Organizations, and Public Agencies that Commented on the Draft EIR

Comment Letter Reference	Commenting Person, Organization, or Public Agency	Date of Comment
A.	Governor's Office of Planning and Research, State Clearinghouse and Planning Unit	June 12, 2012
B.	Department of the Air Force, Air Force Reserve Command	June 12, 2012
C.	United States Department of the Interior, Fish and Wildlife Service	n.d.; Received June 19, 2012
D.	Native American Heritage Commission	May 17, 2012
E.	Rincon Band of Luiseño Indians, Culture Committee	May 14, 2012
F.	Pala Tribal Historic Preservation Office	May 3, 2012
G.	Morongo Band of Mission Indians	June 11, 2012
H.	Pechanga Cultural Resources, Temecula Band of Luiseño Mission Indians	June 13, 2012
I.	Eastern Municipal Water District	June 13, 2012
J.	Eastern Municipal Water District	June 7, 2012
K.	South Coast Air Quality Management District	June 14, 2012
L.	Gerald M. Budlong	n.d.; Received June 13, 2012

F.2.1 CEQA REQUIREMENTS REGARDING COMMENTS AND RESPONSES

CEQA Guidelines Section 15204(a) outlines parameters for submitting comments, and notes that the focus of review and comment of Draft EIRs should be:

> *…on the sufficiency of the document in identifying and analyzing possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects. At the same time, reviewers should be aware that the adequacy of an EIR is determined in terms of what is reasonably feasible…CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or suggested by commenters. When responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR.*

CEQA Guidelines Section 15204(c) further advises that, "Reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to Section 15064, an effect shall not be considered significant in the absence of substantial evidence." Section 15204(d) also notes that, "Each responsible agency and trustee agency shall focus its comments on environmental information germane to that agency's statutory responsibility." Section 15204(e) states that, "This section shall not be used to restrict the ability of reviewers to comment on the general adequacy of a document or of the lead agency to reject comments not focused as recommended by [CEQA Guidelines Section 15204]."

In accordance with CEQA Guidelines Section 15088(b), copies of the written responses will be provided to commenting public agencies at least ten (10) days prior to certifying the FEIR. The responses will be provided with electronic copies of this FEIR, as permitted by CEQA, and will conform to the legal standards established for response to comments on Draft EIRs.

F.2.2 REVISIONS TO THE PROPOSED PROJECT IN RESPONSE TO PUBLIC COMMENTS

Since the time that the Draft EIR was circulated for public review, no substantive revisions to the General Plan Amendment (PA11-0001), Specific Plan Amendment (P11-004), Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan (PA11-0002), or any of the four (4) individual Building Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006) were made by the Project Applicant and no changes to the proposed Project were warranted in response to any public comments received on the Draft EIR by the City of Moreno Valley.

F.2.3 CORRECTIONS AND ADDITIONS TO THE DRAFT EIR IN RESPONSE TO PUBLIC COMMENTS

Substantive changes made to the text, tables and/or exhibits of the Draft EIR in response to public comments on the Draft EIR are itemized in Table F-2, *Errata Table of Corrections and Additions*. Refer to the referenced sections and page numbers for additional detail, as not every revision is noted in the Errata Table. Additions are shown in Table F-2 as underline text and deletions shown as ~~stricken~~ text. No corrections or additions made to the Draft EIR are considered substantial new information requiring recirculation or additional environmental review under State CEQA Guidelines Section 15088.5.

Table F-2 Errata Table of Corrections and Additions

Page(s)	Section	Corrections and Additions
--	4.2, Air Quality	The Mobile Source Health Risk Assessment (Appendix B2) was updated in response to comments received from the South Coast Air Quality Management District (SCAQMD). In Section 4.2, *Air Quality*, and Section 7.0, *References*, citations to Appendix B2 were revised to reference the updated Mobile Source Health Risk Assessment, and the updated Mobile Source Health Risk Assessment was added to the EIR Technical Appendix. Because the date of preparation of Appendix B2 was changed from 2011 to 2012, citations to all reports in the EIR Technical Appendix prepared by Urban Crossroads, Inc. required revision, with the exception of Appendix B1 (*i.e.*, Appendices F, I1, I2, and J). Citations to Appendices F, I1, I2, and J were updated throughout the EIR as follows:
2-7, 2-8	2.0, Environmental Setting	
--	4.10, Noise	
--	4.11,Transportation/ Traffic	
5-1, 5-3	5.0, Mandatory CEQA Topics	
7-10-11	References	

Page(s)	Section	Corrections and Additions
--	Technical Appendix B2	Appendix / Citation in Draft EIR / Citation in Final EIR F / Urban Crossroads 2011c / Urban Crossroads 2011b I1 / Urban Crossroads 2011d / Urban Crossroads 2011c I2 / Urban Crossroads 2011e / Urban Crossroads 2011d J / Urban Crossroads 2011f / Urban Crossroads 2011e
4.2-20-21	4.2, Air Quality	In response to a request from the SCAQMD to use emission rates from EMFAC 2011 instead of EMFAC 2007 for health risk assessment modeling, the health risks associated with emissions of diesel particulate matter reported in the Draft EIR have been reduced, as follows: At the point of maximum impact, the maximum increase in cancer risk is estimated to be ~~4.59~~ 3.70 in one million for nearby residents (based on a 70 year exposure rate), ~~4.62~~ 3.23 in one million for employees at the Project site (based on a 40 year exposure rate), and ~~1.14~~ 0.67 in one million for nearby school children (based on a nine (9) year exposure rate).
S-9 4.2-23	Executive Summary 4.2, Air Quality	Project Requirement PR 4.2-2 has been revised as follows in response to comments received from the SCAQMD: PR 4.2-2 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust." Rule 403 requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving activities, grading, and equipment travel on unpaved roads.
S-10 4.2-24	Executive Summary 4.2, Air Quality	Mitigation Measure MM 4.2-1 has been revised as follows in response to comments received from the SCAQMD: MM 4.2-1 Prior to grading permit issuance, the City shall verify that the following notes ~~is~~ are included on the grading plan: "~~During construction activity,~~ ~~t~~The contractor shall utilize California Air Resources Board (CARB) Tier III certified equipment or better for all off-road diesel-powered construction equipment greater than 50 horsepower. ~~the following pieces of equipment: Graders, Rubber Tired Dozers, and Scrapers~~." "Any emissions controls device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations, with the exception that afterburners are not required." "During construction activity, truck idling shall be limited to five minutes or less." "The contractor shall implement temporary traffic control during construction pursuant to the requirements of the California Manual on Uniform Traffic Control Devices." "The contractor shall assure that mass grading shall be limited

Page(s)	Section	Corrections and Additions
		to no more than 6.5 acres per day. The contractor shall maintain a log of daily mass grading activities, which shall be provided to the City upon request."
S-10	Executive Summary	The monitoring party for Mitigation Measure MM 4.2-2 has been revised as follows: City of Moreno Valley Planning Division and Land Development Division
S-11	Executive Summary	The monitoring party for Mitigation Measure MM 4.2-3 has been revised as follows: SCAQMD, City of Moreno Valley Planning Division and Building Division In addition, the implementation stage for Mitigation Measure MM 4.2-3 has been revised as follows: Prior to the issuance of building permit(s), During construction activities and ongoing during long-term operation
S-11	Executive Summary	The monitoring party for Mitigation Measure MM 4.2-5 has been revised as follows: City of Moreno Valley Building and Safety Division and Planning Division
S-12, 13 4.2-25	Executive Summary 4.2, Air Quality	In response to comments received from the SCAQMD, the Draft EIR has been revised to incorporate the following text and new Mitigation Measures MM 4.2-7 through 4.2-10: MM 4.2-7 Prior to the issuance of occupancy permits, the Project's property owner shall provide documentation to the Planning Division verifying that a provision is included in the building's lease agreement that informs tenants using a vehicle fleet older than 2007 about the availability of grant funding from available funding sources for truck retrofit and replacement. MM 4.2-8 Prior to the issuance of occupancy permits, the Project's property owner shall provide documentation to the Planning Division verifying that a provision is included in the building's lease agreement that informs tenants about the availability of alternatively fueled cargo handling equipment. Compliance with SCAQMD Rule 403, "Fugitive Dust," is a mandatory requirement listed above as Project Requirement PR 4.2-2. The SCAQMD made specific recommendations regarding this Project related to SCAQMD Rule 403 compliance, which are listed below in Mitigation Measures MM 4.2-9 and MM 4.2-10. MM 4.2-9 Prior to grading permit issuance, the City shall verify that the following notes are listed on the grading plan: "Apply non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously

Page(s)	Section	Corrections and Additions
		graded areas inactive for ten days or more)." "All trucks hauling dirt, sand, soil, or other loose materials shall be covered." "Streets shall be swept at the end of each day if visible soil is carried onto adjacent paved public roads. Refer to SCAQMD Rule 1186.1, 'Less-Polluting Street Sweepers.' " "The construction contractor shall monitor wind speed by use of an anemometer. The contractor shall suspend all excavating and grading operations when instantaneous wind speeds exceed 25 miles per hour." MM 4.2-10 Prior to the start of grading, the construction contractor shall post a sign at the property's frontage with Heacock Street and at the property's frontage with Iris Avenue stating the name and phone number of an individual to be contacted to resolve dust complaints. These signs shall remain posted on the property until grading is complete.
4.2-27	4.2, Air Quality	Pursuant to the addition of new and revised mitigation measures to address Project impacts to air quality (described above), the following revisions were made to the conclusion statement for Threshold 4: Threshold 4: Less than Significant Impact with Mitigation. Implementation of Mitigation Measures MM 4.2-1, ~~and~~ MM 4.2-2, MM 4.2-9 and MM 4.2-10 would reduce localized PM_{10} and $PM_{2.5}$ concentrations below SCAQMD significance thresholds. Accordingly, with implementation of Mitigation Measure MM 4.2-1, MM 4.2-2s, MM 4.2-9, MM 4.2-10 and MM 4.6-2, impacts to sensitive receptors associated with the proposed Project-related construction emissions would be reduced to below a level of significance.
S-14 4.3-25 and -26	Executive Summary 4.3, Biological Resources	In response to comments received from the U.S. Fish and Wildlife Service (USFWS) a new mitigation measure (Mitigation Measure MM 4.3-1) has been added to Subsection 4.3, and Mitigation Measure MM 4.3-2 (identified as Mitigation Measure MM 4.3-1 in the Draft EIR) has been revised, as follows: MM 4.3-1 Within 30 days prior to grading, a qualified biologist shall conduct a survey of the property and make a determination regarding the presence or absence of the burrowing owl. The determination shall be documented in a report and shall be submitted, reviewed, and accepted by the Planning Division of the Community & Economic Development Department prior to the issuance of a grading permit and subject to the following provisions: a. In the event that the pre-construction survey identifies no burrowing owls on the property, a grading permit may be issued without restriction. b. In the event that the pre-construction survey identifies the presence of three (3) or more mating pairs of burrowing

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		owl, the grading permit shall not be issued and the requirements of MSCHP Species-Specific Conservation Objective 6 for the burrowing owl shall be followed. MSHCP Species-Specific Conservation Objective 6 for the burrowing owl prohibits the take of active nests and allows passive relocation to be conducted by a qualified biologist outside of the breeding season. Passive relocation shall include the required use of one-way doors to exclude owls from the site and the collapsing of burrows). Passive relocation shall follow CDFG relocation protocol and shall only occur between September 15 and February 1. c. In the event that the pre-construction survey identifies the presence of at least one individual but less than three (3) mating pairs of burrowing owl, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities on the property, the qualified biologist shall passively relocate any burrowing owls, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows. Passive relocation shall follow CDFG relocation protocol and shall only occur between September 15 and February 1. MM4.3-~~1~~2 Prior to the issuance of any grading permits, the Planning Division of the Community & Economic Development Department shall review grading plans to ensure that the following note is included on the plans: "No more than 30 days prior to commencement of ground-disturbing activities on site, a qualified biologist shall conduct pre-construction presence/absence surveys in accordance with the MSHCP Burrowing Owl Survey Instructions requirements and as required by MSHCP Objective 6 for the burrowing owl. If owls are determined to be present, grading shall not commence between February 1 and September 15. Between September 15 and February 1, grading may commence after the qualified biologist has passively relocated the owls following CDFG protocol." ~~In the event that pre-construction surveys identify the presence of any burrowing owl, then prior to commencement of ground-disturbing activities on site, and pursuant to Objective 6 of the MSHCP burrowing owl objectives, a qualified biologist shall passively relocate any burrowing owls present on site following protocols approved by the MSHCP, CDFG, and USFWS, including the required use of one-way doors to exclude owls from the site and collapsing of burrows.~~ ~~Owl relocation shall occur between September 15th and February 1st to avoid the nesting season. The "take" of any active nests during the breeding season shall be is~~

Page(s)	Section	Corrections and Additions
		~~prohibited pursuant to the Migratory Bird Treaty Act and California Fish and Game Code.~~ ~~Ground disturbing activities authorized by this permit shall not occur until a report documenting the findings of the pre-construction survey has been prepared and approved by the Planning Division of the Community & Economic Development Department. The report shall identify the results of the pre-construction survey and provide documentation and evidence (e.g., photographs) of any passive relocation efforts that have occurred. No ground-disturbing activities may proceed unless the final report, as approved by the Planning Division, concludes that burrowing owls are no longer present on the property."~~
S-16 4.3-27	Executive Summary 4.3, Biological Resources	In response to comments received from the USFWS, Subsection (b) of Mitigation Measure MM 4.3-3 (identified as Mitigation Measure MM 4.3-2 in the Draft EIR) has been revised as follows: MM 4.3-~~2~~3(b) A copy of the nesting bird survey results report shall be provided to the City of Moreno Valley. If the results of the nesting bird survey identify the presence of active nests on the property, then the qualified biologist shall provide the City of Moreno Valley Planning Division with a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impact. The size and location of all buffer zones, if required, shall be subject to review and approval by the Planning ~~Department~~ Division and shall be no less than a 300-foot radius around the nest for migratory birds and a 500-foot radius around the nest for raptors. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist and City Planning ~~Department~~ Division verify that the nests are no longer occupied and the juvenile birds can survive independently from the nests.
4.4-3	4.4, Cultural Resources	In response to comments received from Pechanga Cultural Resources, the following revisions were incorporated to clarify the discussion of tribal affiliation within the Project area: Luiseño tribes assert that the Project site is within traditional Luiseño territory (Duro 2011, Hoover 2011b 5-9, Hoover 2012 3-5), instead of Cahuilla territory. Luiseño history originates in the present-day City of Temecula, from which the Luiseño people spread out, establishing villages in the area (Hoover 2011b 3). Information provided by the Pechanga Tribe (Hoover, 2012 3-5) asserts that the Tribe's songs, stories, indigenous place names, and academic works substantiate that Luiseño tribes occupied Moreno Valley and that the Pechanga Tribe has cultural affiliation to the Project site.

Page(s)	Section	Corrections and Additions
4.4-3	4.4, Cultural Resources	The following revisions were incorporated to clarify the discussion of tribal affiliation within the Project area: …the City has identified a disagreement among experts regarding the Project site's traditional Native American tribal affiliation. Some experts ~~assert~~ and information sources indicate that the property is within traditional Cahuilla territory (Jones & Stokes 2007 10, Dancy 2011, Bean 1978 575-87, Dancy 2012), while other experts ~~assert~~ and information sources indicate that the property is within traditional Luiseño territory (Duro 2011, Hoover 2011b 5-9, Hoover 2012 3-5).
4.4-4	4.4, Cultural Resources	The following revision was made to clarify the government to government consultation meetings that occurred between the City of Moreno Valley Planning Division and representatives of the Pechanga Tribe: Two government to government consultation meetings occurred between representatives of the City of Moreno Valley Planning Division and representatives of the Pechanga Tribe. Meetings occurred on November 9, 2011 and October 9, 2012.
S-18, 19, 20 4.4-12, 13, 14	Executive Summary 4.4, Cultural Resources	In response to comments received from Pechanga Cultural Resources, Mitigation Measures MM 4.4-1 through MM 4.4-3 have been added to the Final EIR, and Mitigation Measures MM 4.4-5 through MM 4.4-7 (identified as Mitigation Measures MM 4.4-1 through MM 4.4-3 in the Draft EIR) have been revised, as follows: MM 4.4-1 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that qualified professional archaeological monitor has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities and has the authority to halt and redirect earthmoving activities in the event that suspected archeological resources are unearthed during Project construction. MM 4.4-2 Prior to the issuance of a grading permit, the Applicant shall provide evidence to the City of Moreno Valley that appropriate Native American representative(s) shall be allowed to monitor and have received a minimum of 30 days advance notice of all mass grading and trenching activities. Prior to grading permit issuance, appropriate local Native American representative(s) shall be notified in writing by the Applicant of the pending grading activities. During grading and trenching operations, a professional archaeological monitor shall observe all mass grading and trenching activities. If the monitor suspects that an archaeological resource may have been unearthed, the monitor shall immediately halt and redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. If the monitor determines that the suspected resource is potentially significant, the archaeologist shall notify the appropriate Native American Tribe(s) and invite a tribal representative to consult on the resource evaluation. In consultation with the appropriate Native American Tribe(s), the archaeological monitor shall

Page(s)	Section	Corrections and Additions
		evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. If the resource is significant, Mitigation Measure MM 4.4-3 shall apply. MM 4.4-3 If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be suspended 100 feet around the resource(s). The archaeological monitor and a representative of the appropriate Native American Tribe(s), the Project Applicant, and the City Planning Division shall confer regarding mitigation of the discovered resource(s). A treatment plan shall be prepared and implemented by the archaeologist to protect the identified archaeological resource(s) from damage and destruction. The landowner shall relinquish ownership of all archaeological artifacts that are of Native American origin found on the Project site to the culturally affiliated Native American tribe for proper treatment and disposition. A final report containing the significance and treatment findings shall be prepared by the archaeologist and submitted to the City Planning Division, the appropriate Native American tribe(s), and the Eastern Information Center. MM 4.4-~~1~~4 Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan: "If any suspected archaeological resources are discovered during ground-disturbing activities, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call a qualified archaeologist to the site to assess the significance of the find." ~~A qualified archaeologist shall evaluate the suspected resource. If the archaeologist determines that the find does not meet the CEQA standards of cultural significance given in the California Code of Regulations Section 15064.5, construction shall be permitted to proceed. However, if the archaeologist determines that further information is needed to evaluate significance, the City of Moreno Valley shall be notified and a treatment plan shall be prepared and implemented in consultation with the City and the culturally affiliated Native American tribe and in accord with Public Resources Code Section 21083.2. The landowner shall relinquish ownership of all archaeological artifacts that are of Native American origin found on the Project site to the culturally affiliated Native American tribe for proper treatment and disposition."~~ MM 4.4-~~2~~5 Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan: "If any suspected paleontological resources are discovered during ground-disturbing activities, the construction supervisor is obligated to halt work in a 100-foot radius

Page(s)	Section	Corrections and Additions
		around the find and call a qualified paleontologist to the site to assess the significance of the find. A qualified paleontologist shall evaluate the suspected resource. If the paleontologist determines that the find is not unique, construction shall be permitted to proceed. However, if the paleontologist determines that further information is needed to evaluate significance, the City of Moreno Valley shall be notified and a treatment plan shall be prepared and implemented in consultation with the City to protect the identified paleontological resource(s) from damage and destruction." ~~Discovered fossils or samples of such fossils collected by the paleontologist shall be cleaned and prepared to allow for identification. Specimens recovered shall be donated to a qualified scientific institution for preservation and study. Examples of qualified institutions include, but are not limited to, the San Bernardino County Museum (Redlands, California) or the Western Center for Archaeology and Paleontology (Hemet, California)."~~ MM 4.4-~~3~~6 If human remains are ~~discovered~~ encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until ~~during earthwork or other construction activities, work in the affected area shall cease immediately and~~ the Riverside County Coroner ~~shall be notified~~ has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), ~~The~~ remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made by the Coroner. If the Riverside County Coroner determines the remains to be Native American, the California Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then immediately notify the "most likely descendant(s)" of receiving notification of the discovery. The most likely descendant(s) shall then make recommendations within 48 hours, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code Section 5097.98~~, "Native American Historical, Cultural, and Sacred Sites.~~ In addition, the implementation stage of Mitigation Measure MM 4.4-5 (identified as Mitigation Measure MM 4.4-2 in the Draft EIR) has been revised as follows: ~~Ongoing during grading, earthwork, and trenching activities~~ Prior to issuance of a grading permit

Page(s)	Section	Corrections and Additions
S-24	Executive Summary	The implementation stage of Mitigation Measure MM 4.6-1 has been revised as follows: Prior to ~~approval~~ issuance of building permits and following final building inspection
S-25	Executive Summary	The monitoring party for Mitigation Measure MM 4.6-2 has been revised as follows: City of Moreno Valley Planning Division and Land Development Division
4.7-4	4.7, Hazards and Hazardous Materials	In response to comments received from the Department of the Air Force, the following revision has been made to clarify the Project site's status within the accident potential zone of the Draft Joint Use Study for March ARB/IPA: Pursuant to the March Air Reserve Base Air Installation Compatible Use Zone Study (AICUZ) commissioned by the United States Air Force (Department of the Air Force 2005 3-3), and as depicted on Figure 6-5, Air Crash Hazards, of the Moreno Valley General Plan (City of Moreno Valley 2006a) the Project site is not located within or adjacent to any areas that are subject to air crash hazards. Similarly, the proposed Joint Use Study for March ARB/IPA identifies 73.21 acres of the Project site as being located in proposed "Zone D" and 1.84 acres as being located in proposed "Zone C1" which ~~is~~ are not within ~~a crash hazard~~ the accident potential zone (APZ) but would require an avigation easement to disclose the airport's operational characteristics to property owners (March JPA 2010 Ch. 3).
4.7-10	4.7, Hazards and Hazardous Materials	In response to comments received from the Department of the Air Force, the following revision has been made to clarify the requirements of Zone C1 of the Draft March JPA/IPA Joint Land Study for March ARB/IPA: The draft March JPA/IPA Joint Land Use Study states that property within proposed Zone D and Zone C1 should not contain tall objects, electronic forms of interference, aboveground bulk storage of hazardous materials (Zone C1), or land uses that attract birds such as certain farm crops, water bodies, and flood control facilities that hold water for more than 48 hours (March JPA 2010 Ex. 3-4, Zones D and C1).
S-35, 36 4.10-22	Executive Summary 4.10, Noise	Mitigation Measure 4.10-1 has been revised as follows: MM 4.10-1 Prior to the issuance of any building or grading permits, the City of Moreno Valley Land Development Division and Building and Safety Division shall review building and grading plans to ensure that the following notes are included: The monitoring party for Mitigation Measure MM 4.10-1 was revised as follows: City of Moreno Valley Land Development Division and Building and Safety Division In addition, the implementation stage for Mitigation Measure MM 4.10-1 was revised as follows:

Page(s)	Section	Corrections and Additions
		Prior to the issuance of grading permit(s) and building permit(s)
S-36	Executive Summary	The monitoring party for Mitigation Measure MM 4.10-2 has been revised as follows: City of Moreno Valley Land Development Division, and Building, and Safety Division, and Transportation Engineering Division
S-40, 41	Executive Summary	The monitoring party for Mitigation Measures MM 4.11-2 through 4.11-4 has been revised as follows: City of Moreno Valley Land Development Division and Building and Safety Division Public Works Department (Transportation Engineering Division In addition, the implementation stage for Mitigation Measures MM 4.11-3 and 4.11-4 has been revised as follows: Prior to the issuance of ~~the first (1st)~~ building permits
7-1	References	The title of City of Moreno Valley Staff (John Terell) was revised as follows: John Terell, AICP, Planning Official
7-8	References	In response to comments received from Mr. Gerald Budlong, the following reference source is added to the Final EIR: United States Department of the Air Force, 2012. *March Air Reserve Base, California: Fourth Quarter 2011 Long-Term Groundwater Monitoring Information Technical Information Report AFRC and AFCEE Groundwater Monitoring Programs.* April 2012.

F.2.4 RESPONSES TO COMMENTS

Provided in this section are the comment letters received in response to the Draft EIR, along with a response to all comments on environmental issues. Comment letters and specific comments are given letters and numbers for reference purposes.

COMMENT LETTERS

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

June 12, 2012

Mark Gross
City of Moreno Valley
14177 Frederick Street
P.O. Box 88005
Moreno Valley, CA 92552-0805

Subject: March Business Center: PA11-0001 (GPA), PA11-0002 through PA11-0006 (Plot Plans), PA11-0007 (TPM), P11-004 and P11-005 (EIR)
SCH#: 2011061033

Dear Mark Gross:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on June 11, 2012, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

A-1

Sincerely,

Scott Morgan
Director, State Clearinghouse

RECEIVED
JUN 18 2012
CITY OF MORENO VALLEY
Planning Division

Enclosures
cc: Resources Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

RESPONSES

A-1: The City of Moreno Valley acknowledges this letter indicating that the close of public review for the Draft EIR was June 11, 2012. The city will note the assigned State Clearinghouse Number on all future correspondence with the Governor's Office of Planning and Research.

Comment Letters

Document Details Report
State Clearinghouse Data Base

SCH#	**2011061033**
Project Title	March Business Center: PA11-0001 (GPA), PA11-0002 through PA11-0006 (Plot Plans), PA11-0007
Lead Agency	(TPM), P11-004 and P11-005 (EIR)
	Moreno Valley, City of
Type	**EIR** Draft EIR
Description	The project proposes a tentative parcel map, master plot plan and four plot plans to subdivide a 75.05 acre portion of land into four separate parcels to include four individual industrial buildings totaling 1,484,407 sf within the I land use district. The project also includes a GPA to amend the circulation element as well as an amendment to Specific Plan No. 208 to realign and re-classify Krameria Avenue. The proposed project site is located on the southeast corner of Iris Avenue and Heacock Street, approximately 1,300 feet west of Indian Street, south of Iris Avenue and north of the Perris Valley Channel. A majority of the site is located immediately north of the Perris Valley Channel, with the exception of approximately 1.84 acres located southwest of the existing Channel.

Lead Agency Contact

Name	Mark Gross
Agency	City of Moreno Valley
Phone	(951) 413-3215 ***Fax***
email	
Address	14177 Frederick Street
	P.O. Box 88005
City	Moreno Valley ***State*** CA ***Zip*** 92552-0805

Project Location

County	Riverside
City	Moreno Valley
Region	
Lat / Long	33° 53' 17.10" N / 117° 14.36' 39" W
Cross Streets	Heacock Street and Iris Avenue, north of the Perris Valley Channel (except for 1.84 acres of sit
Parcel No.	316-020-032,-033,-034,-035,-036
Township	3S ***Range*** 3W ***Section*** 30 ***Base*** SBB&M

Proximity to:

Highways	I-215
Airports	
Railways	
Waterways	
Schools	
Land Use	Vacant parcel within the Industrial land use district within the existing Industrial Area Specific Plan No. 208. The project is a permitted use under the existing specific plan.

Project Issues	Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife; Growth Inducing; Landuse; Cumulative Effects; Other Issues
Reviewing Agencies	Resources Agency; Department of Fish and Game, Region 6; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 8; Regional Water Quality Control Board, Region 8; Department of Toxic Substances Control; Native American Heritage Commission

Date Received 04/27/2012 ***Start of Review*** 04/27/2012 ***End of Review*** 06/11/2012

A-2

Responses

A-2: The City of Moreno Valley acknowledges the State Clearinghouse Data Base Document Details Report.

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Comment Letters

DEPARTMENT OF THE AIR FORCE
AIR FORCE RESERVE COMMAND

12 June 2012

MEMORANDUM FOR CITY OF MORENO VALLEY
ATTN: MARK GROSS, SENIOR PLANNER
PLANNING DIVISION
14177 FREDERICK STREET
MORENO VALLEY CA 92553

FROM: 452d Mission Support Group/Civil Engineers
Base Operating Support
610 Meyer Drive Bldg 2403
March ARB CA 92518-2166

SUBJECT: March Business Center Draft Environmental Impact Report

1. The March Air Reserve Base (MARB) review of the March Business Center Draft Environmental Impact Report is provided in this memorandum. — B-1

2. This development is generally consistent with compatible land use and MARB mission operations at the proposed location. — B-2

3. Portions of this proposed development are within the 2007 Joint Land Use Study "Zone C1" Compatibility Zone Delineation. Lands within this zone may be subject to noise and risk associated with aircraft operations at March ARB. Single-event noise levels may be potentially disruptive in this zone. Risks are moderate in that aircraft fly at low altitudes over or near this zone. See chapter 3, Airport Land Use Compatibility, Exhibit 3-1, Compatibility Factors Map of the 2007 Joint Land Use Study. — B-3

4. The majority of this proposed development is within the 2007 Joint Land Use Study "Zone D" Compatibility Zone Delineation. This encompasses places where aircraft may fly at or below 3,000ft above the airport elevation on either arrival or departure. Aircraft noise may be loud enough to be disruptive. Direct overflights of this area may occur occasionally. Risk levels in this zone are low. See chapter 3, Airport Land Use Compatibility, Exhibit 3-1, Compatibility Factors Map of the 2007 Joint Land Use Study. — B-4

5. In reference to section 3.2.1 B, Public Roadway Dedications and Improvements, on pages 3-6 and 3-7, MARB requests in the interest of future collaboration, that the project developer and City of Moreno Valley consider and anticipate possible future changes to the intersection of Iris Avenue and Heacock Street related to the possible construction of a secondary entrance to March Air Reserve Base. — B-5

6. Pending the completion of ongoing and planned development projects on base, trip generation traffic flows on and off base are anticipated to increase. In order to meet the needs of the growing installation circulation network, a secondary entrance at the intersection of Iris Ave. and Heacock St. has been conceptually designed. However, further study of existing and — B-6

Responses

B-1: Comment acknowledged; no response is necessary.

B-2: MARB is located west of the Project site, on the opposite side of Heacock Street. The City of Moreno Valley acknowledges this comment that the Project is generally consistent with the MARB land use and operations.

B-3: Approximately 1.84 acres of the Project site, located south of the Perris Valley Channel, fall within proposed Compatibility Zone C1 of the MARB. Subsection 4.7, "Hazards and Hazardous Materials" of the Draft EIR incorrectly identified the Project site as falling wholly within Compatibility Zone D. The Final EIR discloses that 1.84 acres, proposed for the development of one, 16,732 s.f. light industrial building, fall within Compatibility Zone C1 while the remainder of the 75.05-acre property falls within Compatibility Zone D. This clarification does not change any of the significance conclusions reached by the Draft EIR. As noted in the March ARB/IPA Joint Land Use Study (Chapter 3, pp. 6-7), light industrial uses and office buildings up to three stories are typically consistent with the criteria for Compatibility Zone C1. The Draft EIR correctly disclosed that the Project site is not located in a MARB accident potential zone (APZ) but would be subject to aircraft noise (Draft EIR pp. 4.7-4, 9, 10, 12) and require an avigation easement.

Comment Letters

Responses

No additional Project-related impacts are identified and no additional mitigation is required associated with 1.84 acres of the property falling within MARB's Compatibility Zone C1.

B-4: Refer to response B-3.

B-5: The intersection of Heacock Street and Iris Avenue is conditioned to be improved by this Project in such a manner that a future connection with the MARB would be possible, assuming that the Air Force designs the future MARB entrance to account for the crossing of the Heacock Channel. Also refer to Response B-6.

B-6: Because the MARB has not yet completed a traffic study to assess the impacts of locating an entrance aligned with the Heacock Street/Iris Avenue intersection, the number of lanes needed is unknown at this time. However, southbound dual left turn lanes from Heacock Street onto Iris Avenue are included as part of the design for the proposed March Business Center Project evaluated in this EIR. Based on the current intersection design, northbound dual left turn lanes into a future MARB entrance are feasible, provided that the entrance is designed to accommodate two westbound lanes into the Base. The City of Moreno Valley Transportation Division notes the contact information for Ms. Denise Hauser and is willing to coordinate with MARB when the MARB has proposed entrance designs available for review.

Comment Letters

projected traffic patterns, flows, and volumes on and around the installation are still needed to justify construction of a future secondary entrance.

7. It is anticipated a comprehensive traffic study of the installation will be completed in the next 1-5 years. MARB request the City of Moreno Valley and the project develop consider the possibility of potential changes to the intersection and plan accordingly. MARB would suggest consideration of changes such as; a 4-way intersection, a southbound Heacock St. right turn lane, a southbound Heacock St. exit lane, appropriately sized sidewalks, street crossings, lighting, and signalization.

8. MARB Civil Engineering and Planning staff would be pleased to meet with the City of Moreno Valley, to discuss conceptual Iris Avenue and Heacock Street secondary entrance intersection designs. Please contact Ms. Denise Hauser at (951) 655-4862 to arrange a meeting.

9. In section 3.2.1 E, Drainage Plan, on pages 3-8 and 3-9, the drainage plan is discussed. Four new detention basins are planned. The detention basins should be designed so they do not attract waterfowl or other birds that may result in a potential hazard to aircraft. — B-7

10. In section 4.7, Hazards and Hazardous Materials, on pages 4.7-6 and 4.7-7, the DEIR states that two monitoring wells will have to be relocated as part of the project. The relocation will consist of abandoning the existing wells and drilling two new wells in appropriate and accessible locations as approved by the USAF. The wells to be relocated are identified as one well within the central portion of the project site and one well near the perimeter of the site. The well on the central portion of the site is assumed to be 5MW16 shown on Figure 3-10. It is unclear which of the wells shown on the perimeter of the project site on Figure 3-10 will have to be relocated (wells OBMW4&B, 5MW18 and 5MW31 are all shown). — B-8

11. March ARB will work with the developer to find an appropriate and accessible location for the relocated wells. Changing the surface completion of the well (for example, flush mounting with a new paved surface) so it can stay in its present location should also be considered. Once an amicable solution for the relocation of monitoring wells has been developed and depicted, the developer will provide a MARB a revised site plan for official records. At the earliest convenience please contact the Installation Restoration Program (IRP) Remedial Project Manager, Mr. Eric Lehto at (951) 655-5060 to discuss monitoring wells. — B-9

12. Thank you for the opportunity to review and comment on this proposed development. If you have questions please contact Ms. Denise Hauser at (951) 655-4862. — B-10

Pamela M. Hann

PAMELA M. HANN
Base Civil Engineer

Responses

B-7: The proposed detention basins will drain in 48 hours or less. As disclosed on Draft EIR p. 4.7-10,

"…all detention basins proposed on the site are designed to contain a bottom of sandy loam soils (24-inches deep) with 18 inches of rock underneath. A sub-drain system also is designed within the rock portion of the basin. According to Thienes Engineering, with these components that promote infiltration and filtration through the sandy loam, the basins will drain within the required 48 hours, and would therefore not attract birds that could interfere with March ARB airport operations or pose a safety hazard for aircraft (Weil 2012)."

B-8: The wells to be relocated as part of the Project are identified as well nos. 5MW16 and 5MW31.

B-9: The City of Moreno Valley acknowledges that the Project Applicant is required to collaborate with MARB representatives to identify appropriate and accessible locations on the property for the groundwater monitoring wells that the Project proposes to relocate. The City of Moreno Valley Planning Division forwarded a copy of this letter to the Project Applicant and requested that the Applicant contact Mr. Eric Lehto at the phone number provided in this comment.

B-10: The contact information for Ms. Denise Hauser is noted.

Comment Letters

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Palm Springs Fish and Wildlife Office
777 East Tahquitz Canyon Way, Suite 208
Palm Springs, California 92262

In Reply Refer To:
FWS-WRIV-12B0247-12CPA0252

JUN 19 2012

Mr. Mark Gross
Senior Planner
City of Moreno Valley
14177 Frederick Street
Moreno Valley, California 92552

Subject: Draft Environmental Impact Report for the March Business Center (State Clearinghouse No. 2011061033), City of Moreno Valley, Riverside County, California

Dear Mr. Gross:

The U.S. Fish and Wildlife Service (Service) has reviewed the Draft Environmental Impact Report (DEIR) for the March Business Center (Project), received on April 30, 2012. The DEIR has been submitted to identify the proposed Project's environmental impacts, to discuss alternatives, and to propose mitigation measures that offset, minimize, or avoid significant environmental impacts. The Service is providing the following comments as they relate to the Project's consistency with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). — C-1

The Project is located in the southern portion of the City of Moreno Valley, east of Interstate 215 and south of State Route 60. The site is bounded by Iris Avenue to the north, Heacock Street to the west, and Krameria Avenue to the south. March Air Force Base is adjacent to the west. A majority of the site is located immediately north of the Perris Valley Channel, though a portion of the channel extends through the southwest corner of the site. The proposed Project consists of the development of a 75.05-acre property with business center land uses. The Project includes the adoption of a General Plan Amendment (PA11-0001) and Specific Plan Amendment (P11-004), approval of Tentative Parcel Map No. 35879 (PA11-0007), a Master Plot Plan (PA11-0002) and four (4) individual Building Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006). — C-2

The project is not located within the MSHCP Criteria Area. The Project is subject to the MSHCP Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools policy (MSHCP section 6.1.2 "Riparian/Riverine and Vernal Pool Policy") and the Additional Survey Needs and Procedures for burrowing owl (MSHCP section 6.3.2, figure 6-4). — C-3

Burrowing Owls

The project is located within the MSHCP burrowing owl additional survey area and surveys were conducted in accordance with the MSHCP Burrowing Owl Survey Instructions. A focused burrow survey was conducted on May 31, 2011, and focused burrowing owl surveys were conducted on May 13, June 30, July 25, August 1, and August 4, 2011. One burrowing owl family group (two adults, four juveniles) was detected onsite using two burrow complexes located in the northern portion of the site. One adult was banded (a USFWS aluminum band and a green color band). — C-4

Responses

C-1: Comment acknowledged; no response is necessary.

C-2: The location of the Project site and the list of Project-related discretionary applications under review by the City of Moreno Valley noted in this comment are accurate.

C-3: The information noted in this comment is accurate and is disclosed in Draft EIR Subsection 4.3.

C-4: The information noted in this comment is accurate and is disclosed in Draft EIR Subsection 4.3.

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Comment Letters

Responses

Mr. Mark Gross (FWS-WRIV-12B0247-12CPA0252) 2

Implementation of the project would result in the loss of occupied burrowing owl habitat. We are concerned that the DEIR makes no mention of preparation of a Determination of Biologically Equivalent or Superior Preservation (DBESP) for impacts to burrowing owl. Impacts to burrowing owls on the project site are subject to the provisions of the Additional Survey Needs Policy and therefore a DBESP is required. We recommend completion of the DBESP prior to completion of the Final Environmental Impact Report (FEIR) and incorporation of any burrowing owl mitigation measures from the DBESP in the FEIR. C-5

The DEIR describes proposed mitigation for burrowing owls (MM 4.3-1) which include a pre-construction presence/absence survey within 30 days of ground disturbing activities, and if owls are present, excluding the owls from the burrows during the non-breeding season (September 15 to February 1). The Service does not recommend excluding the owls from the site. There is very little information about the fate of owls whose burrows are closed. It is generally believed that they do not survive unless there are suitable burrows available within 100 meters of the closed burrows (Trulio 1995). We recommend that the owls be actively relocated to conserved lands within the Lake Matthews-Estelle Mountain Reserve, which is managed by the Riverside County Habitat Conservation Agency (RCHCA). Active relocation would be implemented in cooperation with the Service, California Department of Fish and Game, Regional Conservation Authority (RCA), and the RCHCA. C-6

Riparian/Riverine Areas

The Project proposes to impact 0.05 acres of unvegetated riverine habitat within the Perris Valley Channel. The DEIR states that because the minor impact would not result in the loss of function or values, and that the impact represents a less than significant impact, a DBESP is not required. We acknowledge that the permanent and temporary impacts to the Perris Valley Channel are small however; minor impacts do not necessarily constitute zero loss of function or values as they relate to Covered Species downstream. For example, repeated small impacts associated with numerous projects would constitute a cumulatively detectable change in the riparian/riverine and water quality values associated with the channel. Impacts to riverine areas on the project site are subject to the provisions of the Riparian/Riverine Policy and therefore a DBESP is required. We cannot evaluate if these impacts represent a less than significant impact without a DBESP to evaluate the values and functions, direct and indirect impacts, including cumulative effects, and mitigation measures proposed to offset, minimize, or avoid significant environmental impacts. We recommend completion of the DBESP prior to completion of the FEIR. C-7

We also would like to clarify that the Riparian Riverine Policy (MSHCP Section 6.1.2) covers areas that contain trees, shrubs, persistent emergent or emergent mosses and lichens associated with the presence of water and *also other areas where fresh water flows during all or a portion of the year*. This includes drainages that are unvegetated (or support upland vegetation) when they are tributary to areas supporting downstream habitat values for MSHCP Covered Species in areas described for conservation or already conserved. C-8

Nesting Birds

Based on the information provided, the site provides habitat for tree, shrub, and/or ground-nesting birds during all or part of the year that are protected by the Federal Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 *et seq.*). The MBTA protects migratory birds and their C-9

C-5: As disclosed in Draft EIR Subsection 4.3 and noted in Comment C-4, the Project site and the 500-foot off-site buffer area adjacent to the Project site supports one burrowing owl family group (two adults, four juveniles) and one additional adult, as determined by a focused survey conducted by qualified biologists following MSCHP survey protocol. The Project site is not located in or adjacent to the MSHCP Criteria Area. Objective 5 of the MSHCP Species Conservation Objectives for burrowing owls applies the following for sites located outside of the MSHCP Criteria Area: "If the site (including adjacent areas) supports three or more pairs of burrowing owls, supports greater than 35 acres of suitable habitat and is non-contiguous with MSHCP Conservation Area lands, at least 90 percent of the area with long-term conservation value and burrowing owl pairs will be conserved onsite." MSHCP Section 6.3.2 states that a Determination of Biologically Equivalent or Superior Preservation (DBESP) must be made if the 90 percent avoidance threshold cannot be met. Because the Project site and the adjacent (off-site) buffer area supports less than three (3) mating pairs, the MSHCP avoidance provisions do not apply. As such, a DBESP is not required. Also refer to Response C-6.

C-6: As noted in Response C-5, the Project site and the adjacent, off-site 500-foot area supports less than three (3) mating pairs of burrowing owl; as such, the MSHCP avoidance provisions do not apply to the Project. Mitigation Measure MM 4.3-1 is added in the Final EIR to address conservation should three or more mating pairs be discovered on the property during the pre-construction survey. Based on the current survey results and in accordance with MSHCP Species-Specific Conservation Objective 6 for the burrowing owl, passive relocation as required by Draft EIR Mitigation Measure MM 4.3-1 is appropriate when conducted outside the nesting season. The City of Moreno Valley acknowledges the USFWS's comment that the survival rates of

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burrowing owls excluded from burrows by passive relocation techniques are not known. However, there is also little published information about the survival rates of actively relocated burrowing owls. Active relocation involves capture and relocation. Active relocation is not required by the MSHCP nor is it authorized by the State of California Natural Resources Agency, Department of Fish and Game (CDFG). CDFG stated in their March 2012 Staff Report on Burrowing Mitigation that the CDFG is unable to authorize the capture and relocation of burrowing owls except within the context of scientific research or a NCCP strategy. The CDFG is a party to the MSCHP and is responsible for the management of California's fish, wildlife and plant resources, and the habitats upon which they depend (Fish and Game Code §1802). Although there are no long-term conservation areas within 100 meters of the Project site, there are several vacant parcels and areas of open land where borrowing owls could passively relocate. Long-term conservation of the species is assured through compliance with the MSHCP.

C-7: The segment of the Perris Valley Storm Drain Channel that crosses the Project site is a trapezoidal concrete-lined facility near Heacock Street that transitions to an earthen channel approximately 150 feet east of the roadway. The Channel is part of the Riverside County Flood Control and Water Conservation District's (RCFCWCD) regional drainage network, which accepts stormwater flows and conveys these flows to the San Jacinto River. The RCFCWCD conducts routine maintenance in the Channel along its entire reach, including the reach between the Project site and the San Jacinto River.

As described in the Draft EIR, the Project proposes to develop the subject property and install two drainage outlets in the adjacent Perris Valley Channel. Instead of receiving the Project site's water runoff by sheet flow as occurs under existing conditions, the Channel would instead receive the discharge at two specific outlet locations. Proposed

[1]California Department of Fish and Game, 2012. "Staff Report on Burrowing Owl Mitigation." March 7, 2012. Available online at http://www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf.

installation of the two outlets would impact six one-hundredths of an acre (0.06-acre). The impact area is devoid of any vegetation, riparian habitat, or sensitive biological communities or species. No vegetation, riparian habitat, or sensitive species would be directly impacted by installing the drainage outlets. Therefore, the only potential to cause adverse effects on biological functions and values is if the characteristics of the discharged water would change or contribute to a cumulatively significant change in the water quantity, water discharge velocity, or water quality characteristics in the Channel such that biological functions or values would be adversely affected in the Channel itself or in downstream receiving waters (e.g., the San Jacinto River, Canyon Lake, and Lake Elsinore, located approximately nine miles, 17 miles, and 20 miles downstream of the Project site, respectively).

In the case that biological functions or values are adversely affected, the Western Riverside County MSHCP requires that a Determination of Biologically Equivalent or Superior Preservation (DBESP) be made by the Permittee to ensure the replacement of any lost functions or values of habitat as it relates to Covered Species. If, however, adverse impacts to biological functions or values would not occur, a DBESP is purposeless and not required.

As concluded in the Draft EIR and as further explained below, there is no potential for the Project to significantly affect the biological functions and values of habitat supporting Covered Species within the Channel or downstream on a direct or cumulative basis. Therefore, a DBESP is not required pursuant to the MSHCP and its associated Implementing Agreement. A letter from the Project's biologist concurring with this determination is attached to this response.

Runoff flows from the undeveloped Project site enter the Perris Valley Channel under existing conditions. After development of the Project, flows from the Project site would continue to enter the Perris Valley Channel, but at two specified discharge points (rather than as sheet flow) after being cleaned on the site via a variety of proposed Best Management

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Practices (BMPs), including, but not limited to, four infiltration/detention basins and catch basin filter inserts, and temporarily detained (for a period not longer than 48 hours) in the aforementioned infiltration/detention basins. As disclosed in Draft EIR Subsection 4.8, Hydrology and Water Quality, and illustrated on Draft EIR Figure 3-10, Conceptual Grading Plan, proposed physical improvements within the Perris Valley Channel include the construction of a head wall, flap gate, and rip-rap at the two proposed discharge points. No characteristics of the drainage flows exiting the two proposed outlets would have the ability to adversely affect biological functions or values in the Channel or in downstream receiving waters (e.g., the San Jacinto River, Canyon Lake, and Lake Elsinore, located approximately nine miles, 17 miles, and 20 miles downstream of the Project site, respectively). Compared to existing conditions, the change in characteristics of the water discharge velocity, volume, and quality are negligible.

Water Velocity: The design of the proposed drainage outlets' physical improvements, particularly the rip-rap features, would ensure that the velocity of runoff flows entering the Channel would not exceed pre-development conditions. Under pre-development conditions, the peak velocity of runoff flows entering the Channel from the Project site are 78.9 cubic feet per second (cfs, from portions of the subject property north of the Channel) and 2.4 cfs (from portions of the subject property southwest of the Channel). In comparison, under proposed post-development conditions, the peak velocity of runoff flows discharged into the Channel from the Project site would be slightly reduced to 75.0 cfs (from portions of the subject property north of the Channel) and 2.0 cfs (from portions of the subject property southwest of the Channel). Accordingly, improvements proposed by the Project would prevent water velocity increases and thereby preclude any changed conditions associated with water velocity induced scour and erosion in the Channel and in downstream receiving waters. Therefore, there would be no impact to biological functions or values associated with changes in water velocity.

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Water Quantity: Regarding the quantity of water discharged into the Channel from the Project site, Draft EIR Subsection 4.8 and Technical Appendix H1 disclose that the total volume of water flow entering the Channel from the Project site under developed conditions would be very similar to the volume that enters the Channel under existing conditions. The minor changes in discharged volumes associated with introducing impervious surfaces on the property would be attenuated four infiltration/detention basins, which would temporarily detain water on the site and cause runoff water discharged to the Perris Valley Channel to occur over a slightly extended period of time under developed conditions (over a time period no more than 48 hours) as compared to existing conditions. As disclosed in Draft EIR Subsection 4.8 and Technical Appendix H1, runoff flows leaving the Project site would not directly or cumulatively contribute to increased flood hazards downstream of the Project site. Accordingly, the proposed Project would neither cause nor contribute to substantial changes to the hydrologic regime, flood storage, or flood flow that would adversely affect wildlife and aquatic habitat or other biological functions or values downstream of the Project site. In addition, because the Project would not reduce the total volume of water discharged into the Channel from the Project site as compared to pre-development conditions, the Project would not cause or contribute to adverse effects to biological functions and values associated with sediment starvation. For these reasons, there would be no impact to biological functions or values associated with changes in water quantity.

Water Quality: Regarding water quality, the proposed Project is required to comply with a Water Quality Management Plan included as EIR Technical Appendix H2, which identifies BMPs that address the quality of water runoff. The proposed BMPs address pollutants that are likely to be generated by the proposed Project as well as pollutants of concern within downstream receiving waters (the San Jacinto River, Canyon Lake, and Lake Elsinore, located approximately nine miles, 17 miles, and 20 miles downstream of the Project site, respectively).The BMPs proposed for use by the Project have high removal efficiencies

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for sediment, organic compounds, trash and debris, oils and grease, pesticides, and metals, as well as a medium to high removal efficiency for nutrients, oxygen demanding substances, and bacteria and viruses (see Technical Appendix H2). During construction, the Project also would be required to comply with Construction General Permit Order 2009-0009-DWQ, which would reduce sedimentation in runoff during grading and construction of the proposed Project. Accordingly, BMPs and design measures proposed by the Project and mandatory compliance with State Law would ensure that development and long-term operation of the Project site would not cause or contribute to adverse water quality changes that could adversely affect downstream wildlife or aquatic habitat. Thus, changes in the quality of discharged water from the Project site would not have any potential to directly or cumulatively impact biological functions and values as it relates to Covered Species.

In conclusion, the Western Riverside County MSHCP requires that a DBESP be made by the Permittee to ensure the replacement of any lost functions or values of habitat as it relates to Covered Species. Because the Project's construction of two drainage outlets in the Perris Valley Channel would not directly or indirectly cause or contribute to a significant direct or cumulatively considerable loss or impairment of downstream biological functions and values related to Covered Species, a DBESP is not required. As specified in the Draft EIR, the Project's impact to 0.06-acre of unvegetated streambed will be mitigated at a ratio of at least 1:1 by the Project Applicant obtaining a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Game, a Section 404 Permit from the U.S. Army Corps of Engineers (Corps) and a Section 401 Permit from the Regional Water Quality Control Board (RWQCB).

C-8: Comment acknowledged. Refer to Response C-7.

Comment Letters

Mr. Mark Gross (FWS-WRIV-12B0247-12CPA0252) 3

nests, eggs, young, and parts from possession, sale, purchase, barter, transport, import, and export, and take. Mitigation for nesting birds is described in Section 4.3.7, MM 4.3-2 of the DEIR. Mitigation measure MM 4.3-2 specifies that a qualified biologist will conduct a nesting bird survey within 3 days prior to vegetation clearing or ground disturbance. If active nests are found, appropriate buffer zones around nests will be approved by the City of Moreno Valley and then marked in the field with construction fencing until the nests are no longer active. Note that the Service typically recommends a 300 foot nest buffer for migratory birds and a 500 foot nest buffer for raptors. In addition, if active nests are found, we recommend that a qualified biological monitor be present to monitor the effects of construction on any active nests and to ensure that there is no encroachment into the nest buffer zones.

Without the information that should be included in the DBESPs, we cannot assess if proposed measures to offset impacts to riparian/riverine areas and burrowing owls on site are effective or appropriate. Therefore, we cannot assess the project's implementation of or consistency with the MSHCP. We request that DBESPs be prepared for burrowing owl and riparian/riverine impacts and that offsetting measures identified in the DBESPs be included in the FEIR. C-10

We appreciate the opportunity to comment on the DEIR. If you have questions or comments regarding this letter, please contact Noelle Ronan of the Service at 760-322-2070, extension 215. C-11

Sincerely,

Kennon A. Corey
Assistant Field Supervisor

cc:
Charles Landry, RCA
Laurie Correa, RCA
Heather Pert, California Department of Fish and Game

Literature Cited

Trulio, L.A. 1995. Passive Relocation: A Method to Preserve Burrowing Owls on Disturbed Sites. Journal of Field Ornithology 66(1):99-106.

Responses

C-9: Mitigation Measure MM 4.3-3(b) (renumbered) is expanded in the Final EIR to specify a 300-foot nest buffer for migratory birds and a 500-foot nest buffer for raptors. Mitigation Measure MM 4.3-2(b) (renumbered) is also expanded in the Final EIR to require that any active nests and required nest buffer zones be field checked weekly by a qualified biological monitor.

C-10: Refer to Responses C-5, C-6, and C-7. Sufficient information is presented in the Draft EIR to determine if the mitigation measures are appropriate. Mitigation Measures MM 4.3-1, MM 4.3-2 (renumbered) and MM 4.3-3(b) (renumbered) are expanded in the Final EIR based on the comments supplied in this letter. A DBESP is not required for the reasons specified above.

C-11: The contact information for Ms. Noelle Ronan is noted.

Comment Letters

Responses

GLENN LUKOS ASSOCIATES

Regulatory Services

Mark Gross
Senior Planner
City of Moreno Valley
14177 Frederick Street
Moreno Valley, California 92552

SUBJECT: Determination of Biologically Equivalent or Superior Preservation (DBESP) Requirements for the March Business Center Project, City of Moreno Valley, Riverside County, California.

Dear Mr. Gross:

Glenn Lukos Associates, Inc. (GLA) prepared a Biological Technical Report (dated September 12, 2011) for the March Business Center Project (Project). The report contained a discussion of compliance with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), including the riparian/riverine policies identified in *Volume I, Section 6.1.2* of the MSHCP. The purpose of the procedures described in *Section 6.1.2* is to ensure that the biological functions and values of riparian/riverine areas throughout the MSHCP Plan Area are maintained such that habitat values for species inside the MSHCP Conservation Area are maintained.

The Project will result in 0.06 acre of permanent impacts to the Perris Valley Storm Drain Channel (PVSD) for the purpose of constructing two drainage outlets into the PVSD. The PVSD is considered to be an MSHCP riverine feature, though the portion to be directly impacted by the Project does not support any riparian habitat. As such, the Project will not directly affect biological functions and values as it pertains to riparian habitat.

Regarding impacts to unvegetated riverine features, the MSHCP is intended to address the potential adverse hydrologic effects to downstream biological resources as a result of the modification of a riverine feature and/or the discharge of water into a riverine feature. On September 25, 2012, Tracy Zinn (T&B Planning) provided a memorandum response to U.S. Fish and Wildlife Service (USFWS) comment regarding the DBESP requirements. In the memorandum, Ms. Zinn provided an analysis regarding the effects of runoff flows on the PVSD (and downstream areas) as it pertains to water velocity, water quantity, and water quality. According to the memorandum, the Project would result in a slight reduction in the peak velocity of runoff flows (78.9 cfs to 75.0 cfs, and 2.4 cfs to 2.0 cfs). The total volume of water flow entering the channel would be very similar to existing conditions, with minor changes being attenuated by proposed infiltration/detention basins. The Project will comply with a Water Quality Management Plan, including BMPs that address the quality of water runoff. As such, as

29 Orchard ▪ Lake Forest ▪ California 92630-8300
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Comment Letters

Responses

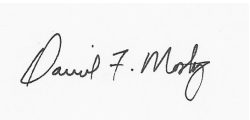
identified in the T&B memorandum, changes in the quality of discharged water from the Project site would not have any potential to directly or cumulatively impact biological functions and values as it relates to downstream resources.

In summary, the Project will not directly impact biological functions and values as it pertains to riparian habitat. Furthermore, based on the information referenced in T&B's memorandum, GLA concurs that the Project will not indirectly impact downstream biological resources as a result of the placement of water runoff into the PVSD as a result of the proposed drainage outlets. As such, a DBESP is not required for the Project.

If you have any questions regarding this letter, please call me at (949) 837-0404, ext. 42.

Sincerely,

GLENN LUKOS ASSOCIATES, INC.



David F. Moskovitz
Senior Biologist/Regulatory Specialist

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Comment Letters

STATE OF CALIFORNIA — Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
ds_nahc@pacbell.net

May 17, 2012

RECEIVED
MAY 2 1 2012
CITY OF MORENO VALLEY
Planning Division

Mr. Mark Gross, Planner
City of Moreno Valley
14177 Frederick Street; P.O. Box 88005
Moreno Valley, CA 92552

Re: SCH#2011061033; CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the **"March Business Center Project;"** located on 75.05-acres in the southern portion of the City of Moreno Valley; Riverside County, California.

Dear Mr. Gross:

The Native American Heritage Commission (NAHC), the State of California 'Trustee Agency' for the protection and preservation of Native American cultural resources pursuant to California Public Resources Code §21070 and affirmed by the Third Appellate Court in the case of EPIC v. Johnson (1985: 170 Cal App. 3rd 604). — D-1

This letter includes state and federal statutes relating to Native American historic properties of religious and cultural significance to American Indian tribes and interested Native American individuals as 'consulting parties' under both state and federal law. State law also addresses the freedom of Native American Religious Expression in Public Resources Code §5097.9. This project is also subject to California Government Code Section 65352.3, *et seq.* *(SB 18)* — D-1

The California Environmental Quality Act (CEQA – CA Public Resources Code 21000-21177, amendments effective 3/18/2010) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the CEQA Guidelines defines a significant impact on the environment as 'a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ...objects of historic or aesthetic significance." In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE), and if so, to mitigate that effect. The NAHC did conduct a Sacred Lands File (SLF) search within the 'area of potential effect (APE) based on your project location and description. As a result of the SLF search, Native American sacred sites were not found in the site specified in the CEQA documents. Also, the absence of archaeological resources does not preclude their existence at the subsurface level and may be exposed during construction activity. — D-2, D-3

The NAHC "Sacred Sites,' as defined by the Native American Heritage Commission and the California Legislature in California Public Resources Code §§5097.94(a) and 5097.96. Items in the NAHC Sacred Lands Inventory are confidential and exempt from the Public Records Act pursuant to California Government Code §6254 (r). — D-4

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries of cultural resources or burial sites once a project is underway. — D-5

Responses

D-1: Comments acknowledged; no response is necessary.

D-2: Draft EIR Subsection 4.4 addresses the potential for Project-related impacts to historic, archaeological, and paleontological resources. Consistent with this comment, Draft EIR Subsection 4.4.1(C) discloses that a search of the SLF database did not identify any sacred sites recorded on the property.

D-3: Draft EIR Subsection 4.4 discloses the potential for archaeological resources to be present beneath the surface of the Project site.

D-4: Confidentiality of the NAHC Sacred Lands Inventory is acknowledged. The Draft EIR does not disclose any confidential information.

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Comment Letters

Culturally affiliated tribes and individuals may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We strongly urge that you make contact with the list of Native American Contacts on the attached list of Native American contacts, to see if your proposed project might impact Native American cultural resources and to obtain their recommendations concerning the proposed project. Pursuant to CA Public Resources Code § 5097.95, the NAHC requests cooperation from other public agencies in order that the Native American consulting parties be provided pertinent project information. Consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e). Pursuant to CA Public Resources Code §5097.95, the NAHC requests that pertinent project information be provided consulting tribal parties. The NAHC recommends *avoidance* as defined by CEQA Guidelines §15370(a) to pursuing a project that would damage or destroy Native American cultural resources and Section 2183.2 that requires documentation, data recovery of cultural resources.

Furthermore, the NAHC if the proposed project is under the jurisdiction of the statutes and regulations of the National Environmental Policy Act (e.g. NEPA; 42 U.S.C. 4321-43351). Consultation with tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 *et seq*), 36 CFR Part 800.3 (f) (2) & .5, the President's Council on Environmental Quality (CSQ, 42 U.S.C 4371 *et seq.* and NAGPRA (25 U.S.C. 3001-3013) as appropriate. The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful, supportive guides for Section 106 consultation. The aforementioned Secretary of the Interior's *Standards* include recommendations for all 'lead agencies' to consider the historic context of proposed projects and to "research" the cultural landscape that might include the 'area of potential effect.'

D-6

Confidentiality of "historic properties of religious and cultural significance" should also be considered as protected by California Government Code §6254(r) and may also be protected under Section 304 of he NHPA or at the Secretary of the Interior discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APEs and possibility threatened by proposed project activity.

D-7

Furthermore, Public Resources Code Section 5097.98, California Government Code §27491 and Health & Safety Code Section 7050.5 provide for provisions for inadvertent discovery of human remains mandate the processes to be followed in the event of a discovery of human remains in a project location other than a 'dedicated cemetery'.

D-8

To be effective, consultation on specific projects must be the result of an ongoing relationship between Native American tribes and lead agencies, project proponents and their contractors, in the opinion of the NAHC. Regarding tribal consultation, a relationship built around regular meetings and informal involvement with local tribes will lead to more qualitative consultation tribal input on specific projects.

D-9

Finally, when Native American cultural sites and/or Native American burial sites are prevalent within the project site, the NAHC recommends 'avoidance' of the site as referenced by CEQA Guidelines Section 15370(a).

D-10

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Responses

D-5: Draft EIR Subsection 4.4.1(C) includes a description of the Native American consultation process that occurred associated with this Project, in accordance with regulatory requirements. In addition to the information presented in the Draft EIR, the Final EIR discloses that representatives of the City of Moreno Valley Planning Division met with representatives of the Pechanga Band of Luiseno Indians prior to the release of the Draft EIR for public review and again prior to the release of the Final EIR and first Planning Commission meeting to consider the Project at the request of the Pechanga Tribe for additional consultation.

D-6: The proposed Project site does not contain any cultural and/or historical resources subject to NEPA review.

D-7: Confidentiality of information regarding historic properties of religious and cultural significance is acknowledged. The Draft EIR does not disclose any confidential information.

D-8: The Draft EIR includes Project Requirement PR 4.4-2, which references mandatory compliance with California Health and Safety Code Section 7050.5, "Disturbance of Human Remains." Additionally, Mitigation Measure MM 4.4-3 addresses the potential for discovery of human remains.

D-9: Refer to Response D-5.

D-10: As disclosed in Draft EIR Subsection 4.4, no cultural sites or Native American burial sites are known to occur on the Project site. Mitigation Measures provided in Subsection 4.4 of the Final EIR address the potential for resources to be unearthed during the construction process.

Comment Letters

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251. D-11

Sincerely,

Dave Singleton
Program Analyst

Cc: State Clearinghouse

Attachment: Native American Contact List

3

Responses

D-11: The contact information for Mr. Dave Singleton is noted.

Comment Letters

Native American Contacts
Riverside County
May 17, 2012

Pala Band of Mission Indians
Tribal Historic Preservation Office/Shasta Gaugher
35008 PalaTemecula Road, PMB 50 Luiseno
Cupeno
Pala, CA 92059
(760) 891-3515
sgaughen@palatribe.com
(760) 742-3189 Fax

Rincon Band of Mission Indians
Vincent Whipple, Tribal Historic Preationv. Officer
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Valley Center, CA 92082
twolfe@rincontribe.org
(760) 297-2635
(760) 297-2639 Fax

Pauma & Yuima Reservation
Randall Majel, Chairperson
P.O. Box 369 Luiseno
Pauma Valley CA 92061
paumareservation@aol.com
(760) 742-1289
(760) 742-3422 Fax

Santa Rosa Band of Mission Indians
John Marcus, Chairman
P.O. Box 391820 Cahuilla
Anza , CA 92539
(951) 659-2700
(951) 659-2228 Fax

D-12

Pechanga Band of Mission Indians
Paul Macarro, Cultural Resources Manager
P.O. Box 1477 Luiseno
Temecula , CA 92593
(951) 770-8100
pmacarro@pechanga-nsn.gov
(951) 506-9491 Fax

Morongo Band of Mission Indians
Michael Contreras, Cultural Heritage Prog.
12700 Pumarra Road Cahuilla
Banning , CA 92220 Serrano
(951) 201-1866 - cell
mcontreras@morongo-nsn.gov
(951) 922-0105 Fax

Ramona Band of Cahuilla Mission Indians
Joseph Hamilton, Chairman
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(951) 763-4325 Fax

San Manuel Band of Mission Indians
Ann Brierty, Policy/Cultural Resources Departmen
26569 Community Center. Drive Serrano
Highland , CA 92346
(909) 864-8933, Ext 3250
abrierty@sanmanuel-nsn.gov
(909) 862-5152 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2011061033; CEQA Notice of completion; draft Environmental Impact Report (DEIR) for the March Business Center Project; located on 75.05-acres in the southern portion of the City of Moreno Valley; Riverside County, California.

Responses

D-12: Native American consultation on this project began in 2007, based on a list of Native American contacts provided by the NAHC on October 19, 2007, and listed in EIR Technical Appendix D. Consultation continued in 2011 as described in Response D-5. The Native American contacts listed on this page were notified of the availability of the Draft EIR public review period and will be notified of publically noticed hearings regarding this Project.

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Responses

Native American Contacts
Riverside County
May 17, 2012

Rincon Band of Mission Indians
Bo Mazzetti, Chairperson
P.O. Box 68 Luiseno
Valley Center, CA 92082
bomazzetti@aol.com
(760) 749-1051
(760) 749-8901 Fax

La Jolla Band of Mission Indians
James Trujillo, Vice Chair
22000 Highway 76 Luiseno
Pauma Valley CA 92061
rob.roy@lajolla-nsn.gov
(760) 742-3796
(760) 742-1704 Fax

Morongo Band of Mission Indians
Robert Martin, Chairperson
12700 Pumarra Rroad Cahuilla
Banning , CA 92220 Serrano
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(951) 755-5200
(951) 922-8146 Fax

Serrano Nation of Indians
Goldie Walker
P.O. Box 343 Serrano
Patton , CA 92369

Pechanga Band of Mission Indians
Mark Macarro, Chairperson
P.O. Box 1477 Luiseno
Temecula , CA 92593
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Cahuilla Band of Indians
Chairperson
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915-763-5549

William J. Pink
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Temecula , CA 92592
wjpink@hotmail.com
(909) 936-1216
Prefers e-mail contact

Pechanga Cultural Resources Department
Anna Hoover, Cultural Analyst
P.O. Box 2183 Luiseño
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ahoover@pechanga-nsn.gov
951-770-8104
(951) 694-0446 - FAX

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2011061033; CEQA Notice of completion; draft Environmental Impact Report (DEIR) for the March Business Center Project; located on 75.05-acres in the southern portion of the City of Moreno Valley; Riverside County, California.

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Comment Letters

Responses

Native American Contacts
Riverside County
May 17, 2012

Ernest H. Siva
Morongo Band of Mission Indians Tribal Elder
9570 Mias Canyon Road Serrano
Banning , CA 92220 Cahuilla
siva@dishmail.net
(951) 849-4676

SOBOBA BAND OF LUISENO INDIANS
Joseph Ontiveros, Cultural Resource Department
P.O. BOX 487 Luiseno
San Jacinto , CA 92581
jontiveros@soboba-nsn.gov
(951) 663-5279
(951) 654-5544, ext 4137

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2011061033; CEQA Notice of completion; draft Environmental Impact Report (DEIR) for the March Business Center Project; located on 75.05-acres in the southern portion of the City of Moreno Valley; Riverside County, California.

Comment Letters

Responses

RINCON BAND OF LUISEÑO INDIANS
Culture Committee
Post Office Box 68 · Valley Center, California 92082 ·
(760) 297-2621 or·(760) 297-2622 & Fax:(760) 749-8901

May 14, 2012

RECEIVED
MAY 2 2 2012
CITY OF MORENO VALLEY
Planning Division

City of Moreno Valley
Community & Economic Development Department
14177 Fredrick Street
PO Box 88005
Moreno Valley, CA 92552-0805

Re: PA11-0001 (General Plan Amendment), PA11-0002-PA11-0006 (Master Plot Plan and Four Individual Plot Plans), PA011-0007 (Tentative Parcel Map No. 35879), P11-004 (Specific Plan Amendment) and P11-005 (Environmental Impact Report)

Dear Mr. Mark Gross,

Thank you for inviting us to submit comments on PA11-0001 (General Plan Amendment), PA11-0002-PA11-0006 (Master Plot Plan and Four Individual Plot Plans), PA011-0007 (Tentative Parcel Map No. 35879), P11-004 (Specific Plan Amendment) and P11-005 (Environmental Impact Report). This letter is written on behalf of the Rincon Band of Luiseño Indians. Rincon is submitting these comments concerning your Project's potential impact on Luiseño cultural resources. — E-1

The Rincon Band has concerns for impacts to historic and cultural resources and findings of significant cultural value that could be disturbed or destroyed and are considered culturally significant to the Luiseño people. This is to inform you, your identified location is within the Aboriginal Territory of the Luiseno people, but is not within the Rincon Historic boundaries. — E-2

We refer you to Soboba Band of Luiseño Indians or Pechanga Band of Luiseño Indians who are closer to your project area, please contact the Native American Heritage commission and they will assist with a referral. If for some reason you are unable to locate an interested tribe please notify us and we will be happy to assist you in the matter. We also request you update your contact information for Rincon and request you include in any future letters and correspondence the Rincon Tribal Chairman and the Tribal Historic Preservation Office in the Cultural Resource Department, Post Office Box 68, Valley Center, Ca 92082 (760) 297 2621. — E-3

Thank you for this opportunity to protect and preserve our cultural assets.

Bo Mazzetti	Stephanie Spencer	Charlie Kolb	Steve Stallings	Laurie E. Gonzalez
Tribal Chairman	Vice Chairwoman	Council Member	Council Member	Council Member

E-1: Comments acknowledged; no response is necessary.

E-2: Draft EIR Subsection 4.4.1(B) identifies the Project site as being located in the traditional tribal territory of both the Luiseno people and Cahuilla people. The City of Moreno Valley acknowledges that the Project site does not fall within the historic area of the Rincon Band.

E-3: The Soboba Band and Pechanga Band were notified of the availability of the Draft EIR. The Pechanga Band submitted a comment letter; refer to Responses H-1 through H-32. Updated contact information for the Rincon Band is noted.

Comment Letters

Responses

RINCON BAND OF LUISEÑO INDIANS
Culture Committee
Post Office Box 68 · Valley Center, California 92082 ·
(760) 297-2621 or·(760) 297-2622 & Fax:(760) 749-8901

Sincerely,

Rose Duro
Rincon Culture Committee Chairman

Bo Mazzetti	Stephanie Spencer	Charlie Kolb	Steve Stallings	Laurie E. Gonzalez
Tribal Chairman	Vice Chairwoman	Council Member	Council Member	Council Member

Comment Letters

Responses

PALA TRIBAL HISTORIC PRESERVATION OFFICE

PMB 50, 35008 Pala Temecula Road
Pala, CA 92059
760-891-3510 Office | 760-742-3189 Fax

PALA THPO

RECEIVED
MAY - 8 2012
CITY OF MORENO VALLEY
Planning Division

May 3, 2012

Mark Gross
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92553

Re: PA11-0001; PA11-0002-PA-11-0006; PA011-0007; P11-004; P11-005

Dear Ms. Gross,

The Pala Band of Mission Indians Tribal Historic Preservation Office has received your notification of the project referenced above. This letter constitutes our response on behalf of Robert Smith, Tribal Chairman.

We have consulted our maps and determined that the project as described is not within the boundaries of the recognized Pala Indian Reservation. The project is also beyond the boundaries of the territory that the tribe considers its Traditional Use Area (TUA). Therefore, we have no objection to the continuation of project activities as currently planned and we defer to the wishes of Tribes in closer proximity to the project area. F-1

We appreciate involvement with your initiative and look forward to working with you on future efforts. If you have questions or need additional information, please do not hesitate to contact me by telephone at 760-891-3515 or by e-mail at sgaughen@palatribe.com.

Sincerely,

Shasta C. Gaughen, PhD
Tribal Historic Preservation Officer
Pala Band of Mission Indians

ATTENTION: THE PALA TRIBAL HISTORIC PRESERVATION OFFICE IS RESPONSIBLE FOR ALL REQUESTS FOR CONSULTATION. PLEASE ADDRESS CORRESPONDENCE TO **SHASTA C. GAUGHEN** AT THE ABOVE ADDRESS. IT IS NOT NECESSARY TO ALSO SEND NOTICES TO PALA TRIBAL CHAIRMAN ROBERT SMITH.

Consultation letter 1

F-1: The City of Moreno Valley acknowledges that the Project site does not fall within the traditional use area of the Pala Band of Mission Indians. The contact information for Ms. Shasta Gaughen is noted.

Comment Letters

Responses

RECEIVED
JUN 13 2012
CITY OF MORENO VALLEY
Planning Division

MORONGO BAND OF MISSION INDIANS
A SOVEREIGN NATION

June 11, 2012

Mark Gross, Senior Planner
City of Moreno Valley
Community and Economic Development Department
14177 Frederick Street
Moreno Valley, Can92553

SUBJECT: **Notice of Availability**
March Business Center
Draft Environmental Impact Report

Dear Mr. Gross:

Thank you for contacting the Morongo Band of Mission Indians regarding the above referenced project. The Tribe greatly appreciates the opportunity to review the project and, respectfully, offer the following comments.

The project is outside of the Tribe's current reservation boundaries but within an area that may be considered a traditional use area or one in which the Tribe has cultural ties (e.g. Cahuilla/Serrano territory). Because the project involves a General Plan Amendment, Master Plot Plan and Four Individual Plot Plans, Tentative Parcel Map, Special Plan Amendment and Environmental Impact Report, the Morongo Band of Mission Indians asks that you impose specific conditions regarding cultural and/or archaeological resources and buried cultural materials on any development plans or entitlement applications as follows: G-1

- If human remains are encountered during grading and other construction excavation, work in the immediate vicinity shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5. G-2
- In the event that Native American cultural resources are discovered during project development/construction, all work in the immediate vicinity of the find shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the overall project may continue during this assessment period. G-3

If significant Native American cultural resources are discovered, for which a Treatment Plan must be prepared, the developer or his archaeologist shall contact the Morongo Band of Mission Indians G-4

12700 PUMARRA ROAD - BANNING, CA 92220 - 951-849-4697 - FAX: 951-849-4425

G-1: Draft EIR Subsection 4.4.1(B) identifies the Project site as being located in the traditional tribal territory of both the Luiseno people and Cahuilla people.

G-2: The Draft EIR includes Project Requirement PR 4.4-2, which references mandatory compliance with California Health and Safety Code Section 7050.5, "Disturbance of Human Remains." Additionally, Mitigation Measure MM 4.4-3 addresses the potential for discovery of human remains.

G-3: Mitigation Measures presented in Draft EIR Subsection 4.4 set forth a procedure for archaeological monitoring and the actions that must be taken should archaeological resources be unearthed during ground-disturbing construction activities on the property.

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Comment Letters

("Tribe")[1]. If requested by the Tribe, the developer or the project archaeologist shall, in good faith, consult on the discovery and its disposition (e.g. avoidance, preservation, return of artifacts to tribe, etc.).

If I may be of further assistance with regard to this matter, please do not hesitate to contact me at your convenience. G-5

Very truly yours,

MORONGO BAND OF MISSION INDIANS

Franklin A. Dancy,
Director of Planning

[1] The Morongo Band of Mission Indians realizes that there may be additional tribes claiming cultural affiliation to the area; however, Morongo can only speak for itself. The Tribe has no objection if the archaeologist wishes to consult with other tribes and if the city wishes to revise the condition to recognize other tribes.

Responses

G-4: Mitigation Measure MM 4.4-2 identifies that the culturally affiliated Native American tribe shall be consulted in the event that an archaeological resource is unearthed that meets or is suspected to meet the standard of cultural significance given in the California Code of Regulations Section 15064.5.

G-5: The contact information for Mr. Franklin Dancy is noted.

Comment Letters

Responses

PECHANGA CULTURAL RESOURCES
Temecula Band of Luiseño Mission Indians

Post Office. Box 2183 • Temecula, CA 92593
Telephone (951) 308-9295 • Fax (951) 506-9491

Chairperson:
Germaine Arenas

Vice Chairperson:
Mary Bear Magee

Committee Members:
Evie Gerber
Darlene Miranda
Bridgett Barcello Maxwell
Aurelia Marruffo
Richard B. Scearce, III

Director:
Gary DuBois

Coordinator:
Paul Macarro

Cultural Analyst:
Anna Hoover

June 13, 2012

VIA E-MAIL and USPS

Mr. Mark Gross
Senior Planner
City of Moreno Valley Planning Division
14177 Frederick Street
Moreno Valley, CA 92553

Re: Pechanga Tribe Comments on the Draft Environmental Impact Report (DEIR) for the March Business Center Project, GPA PA11-0001, PM 35879/PA011-0007, SPA P11-004, EIR P11-005

Dear Mr. Gross:

This comment letter is written on behalf of the Pechanga Band of Luiseño Indians (hereinafter, "the Tribe"), a federally recognized Indian tribe and sovereign government. The Tribe formally requests, pursuant to Public Resources Code §21092.2, to be notified and involved in the entire CEQA environmental review process for the duration of the above referenced project (the "Project"). If you have not done so already, please add the Tribe to your distribution list(s) for public notices and circulation of all documents, including environmental review documents, archeological reports, and all documents pertaining to this Project. The Tribe further requests to be directly notified of all public hearings and scheduled approvals concerning this Project. Please also incorporate these comments into the record of approval for this Project. H-1 H-2

The Tribe submits these comments in order to assist the City of Moreno Valley in developing an accurate environmental document for this Project and appropriate avoidance and preservation measures for any subsurface cultural resources that may be impacted during the proposed development. The mitigation as proposed in the Draft Environmental Impact Report (DEIR) is inadequate and does not provide sufficient protection for cultural resources. It does not accurately reflect the Tribe's concerns as discussed in our SB18 face to face consultation, follow-up electronic mail communications or in our comment letters. Furthermore, the archaeological study is faulty in its assessment of the proper traditional tribal affiliation for this area. The Tribe included research in its August 2011 comment letter proving that the archaeological study did not provide adequate information to the City to fully address the issue of traditional tribal land use. And finally, the DEIR and the archaeological study make faulty assumptions based upon insufficient data which did not assess the information the Pechanga Tribe provided concerning the Project area's cultural resources or the traditional cultural H-3

Sacred Is The Duty Trusted Unto Our Care And With Honor We Rise To The Need

H-1: The City of Moreno Valley acknowledges and appreciates the role of the Pechanga Band of Luiseno Indians (hereinafter, "the Tribe") in the environmental review process. As required pursuant to Public Resources Code Section 21092.2, the Tribe is included on the city's notification list for all future public notices and scheduled public hearings concerning this Project.

H-2: This comment letter, dated June 13, 2012, is included in the City of Moreno Valley's administrative record for this project.

H-3: Refer to Responses H-8 through H-32.

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Comment Letters

Responses

landscape. Therefore, we request that Section 4.4 Cultural Resources of the DEIR be revised to accurately reflect the updated and most current information available to the City as well as to revise the mitigation measures to include monitoring by both a Riverside County qualified archaeologist and the Pechanga Tribe as outlined below.

THE CITY OF MORENO VALLEY MUST INCLUDE INVOLVEMENT OF AND CONSULTATION WITH THE PECHANGA TRIBE IN ITS ENVIRONMENTAL REVIEW PROCESS

It has been the intent of the Federal Government[1] and the State of California[2] that Indian tribes be consulted with regard to issues which impact cultural and spiritual resources, as well as other governmental concerns. The responsibility to consult with Indian tribes stems from the unique government-to-government relationship between the United States and Indian tribes. This arises when tribal interests are affected by the actions of governmental agencies and departments. In this case, it is undisputed that the project lies within the Pechanga Tribe's traditional territory. Therefore, in order to comply with CEQA and other applicable Federal and California law, it is imperative that the City of Moreno Valley consult with the Tribe in order to guarantee an adequate knowledge base for an appropriate evaluation of the Project effects, as well as generating adequate mitigation measures. H-4

LEAD AGENCY CONSULTATION WITH THE PECHANGA TRIBE REQUIRED PURSUANT TO CAL. GOVT. C. §§ 65351, 65352, 65352.3, AND 65352.4 (SENATE BILL 18 – TRADITIONAL TRIBAL CULTURAL PLACES LAW)

The City of Moreno Valley is required to consult with the Pechanga Tribe pursuant to a State law entitled Traditional Tribal Cultural Places (also known as SB 18; Cal. Govt. C. § 65352.3). The purpose of consultation is to identify any Native American sacred places and any geographical areas which could potentially yield sacred places, identify proper means of treatment and management of such places, and to ensure the protection and preservation of such places through agreed upon mitigation (Cal. Govt. C. 65352.3; SB18, Chapter 905, Section 1(4)(b)(3)). Consultation must be government-to-government, meaning directly between the Tribe and the Lead Agency, seeking agreement where feasible (Cal. Govt. C. § 65352.4; SB18, Chapter 905, Section 1(4)(b)(3)). Lastly, any information conveyed to the Lead Agency concerning Native American sacred places shall be confidential in terms of the specific identity, location, character and use of those places and associated features and objects. This information is not subject to public disclosure pursuant the California Public Records Act (Cal. Govt. C. 6254(r)). H-5

[1]See e.g., Executive Memorandum of April 29, 1994 on Government-to-Government Relations with Native American Tribal Governments, Executive Order of November 6, 2000 on Consultation and Coordination with Indian Tribal Governments, Executive Memorandum of September 23, 2004 on Government-to-Government Relationships with Tribal Governments, and Executive Memorandum of November 5, 2009 on Tribal Consultation.
[2] See California Public Resource Code §5097.9 et seq.; California Government Code §§65351, 65352.3 and 65352.4

H-4: The City of Moreno Valley recognizes the importance of and its obligation to consult with Native American Tribes when tribal interests may be affected. The city complied with the required formal government to government consultation requirements as described in Draft EIR Subsection 4.4.1(C). In addition to the information presented in the Draft EIR, the Final EIR discloses that representatives of the City of Moreno Valley Planning Division met with representatives of the Pechanga Band of Luiseno Indians prior to the release of the Draft EIR for public review and again prior to the release of the Final EIR and first Planning Commission meeting to consider the Project at the request of the Pechanga Tribe for additional consultation.

H-5: Refer to Response H-4. During the required formal government to government consultation process for this Project, no information was provided to the city to indicate that the property contains a sacred place or could potentially yield a sacred place. The Draft EIR does not disclose any confidential information.

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Comment Letters

Pechanga Comment Letter to the City of Moreno Valley
Re: Pechanga Tribe Comments on the March Business Center Project
June 13, 2012
Page 3

The Tribe previously submitted comments to the City regarding the archaeological study (August 2011) and on the Project Initial Study (January 2012). We are also actively consulting with the City on this Project per SB18 as both a General Plan Amendment and a Specific Plan Amendment are being processed. The Tribe thanks the City for continuing consultation. However, we are concerned that our comments were apparently disregarded as none of our requests or concerns were directly addressed within the DEIR. As the City knows, SB 18 requires "meaningful consultation" between the lead agency and the Tribe. We do not believe that the City has met the mandate of SB 18 because the information and concerns we offered in detail regarding the traditional cultural places of the Luiseno people in this area appear to have been ignored, which is evidenced by the complete absence of any discussion regarding the sensitive issues we divulged during our one SB 18 meeting on November 9, 2011. The Tribe requests to meet again with the City once these comments have been received, *prior to* the scheduled Planning Commission meeting, so that we can address our concerns further, including how the DEIR will be revised to accurately reflect tribal concerns regarding cultural resources and impacts to such resources, proper documentation of the cultural affiliation for this area and as well, appropriate mitigation language that effectively protects our invaluable and irreplaceable cultural resources.

H-6

H-7

PECHANGA CULTURAL AFFILIATION TO PROJECT AREA

The Pechanga Tribe asserts that the Project area is part of the Tribe's aboriginal territory, as evidenced by the existence of Luiseño place names, *tóota yixélval* (rock art, pictographs, petroglyphs), a village complex (*Qaxáalku*) and an extensive Luiseño artifact record in the vicinity of the Project. The Tribe further asserts that this culturally sensitive area is affiliated specifically with the Pechanga Band of Luiseño Indians because of the Tribe's specific cultural ties to this area. The Tribe considers any resources located on this Project property to be Pechanga cultural resources.

H-8

The Tribe's knowledge of our ancestral boundaries is based on reliable information passed down to us from our elders; published academic works in the areas of anthropology, history and ethno-history; and through recorded ethnographic and linguistic accounts. Many anthropologists and historians who have presented boundaries of the Luiseño traditional territory have included Moreno Valley, the March Air Reserve Base (MARB) and the March Joint Powers Authority (MJPA) areas in their descriptions (Drucker 1937; Heiser and Whipple 1957; Kroeber 1925; Smith and Freers 1994), and such territory descriptions correspond with what was communicated to the Pechanga people by our elders. While historic accounts, anthropological and linguistic theories are important in determining traditional Luiseño territory; the Tribe asserts that the most critical sources of information used to define our traditional territories are our songs, creation accounts and oral traditions.

H-9

Luiseño history originates with the creation of all things at *'éxva Teméeku*, known today as the City of Temecula, and dispersing out to all corners of creation (what is today known as Luiseño territory). It was at Temecula that the Luiseño deity *Wuyóot* lived and taught the people,

H-10

Pechanga Cultural Resources • Temecula Band of Luiseño Mission Indians
Post Office Box 2183 • Temecula, CA 92592

Sacred Is The Duty Trusted Unto Our Care And With Honor We Rise To The Need

Responses

H-6: The August 2011 letter referenced in this comment is dated August 17, 2011, and was prepared in response to the archaeological report prepared for the Project. The January 2012 letter referenced in this comment is dated January 9, 2012, and was prepared by the Tribe in response to a SB18 consultation meeting held with the city on November 9, 2011. The August 2011 letter and January 2012 letter were considered by the city during preparation of the Draft EIR. The letters are included in the city's administrative record for this project, are referenced in Draft EIR Subsection 4.4, "Cultural Resources," and are listed as references in Draft EIR Subsection 7.4 "Persons Consulted/Written or Verbal Communication." The letters were not disregarded and the Tribe's assertion of affiliation to the Project area is acknowledged in the Draft EIR. The Tribe did not formally comment on the EIR's Notice of Preparation or Initial Study. The e-mail correspondence from Ms. Anna Hoover to the City of Moreno Valley dated July 15, 2011, and referenced in Draft EIR Subsection 7.4, indicates that the Tribe was unable to respond at that time. The city fully complied with the mandate of SB18 and continues to consult with the Tribe regarding this Project.

H-7: In response to the Tribe's request for an additional SB18 consultation meeting, representatives of the City of Moreno Valley Planning Division met with tribal representatives prior to the release of the Final EIR and the first Planning Commission meeting to consider the Project.

H-8: The Draft EIR acknowledges the Tribe's cultural affiliation to the property and does not refute the Tribe's assertion that the property was utilized by the Luiseno people. However, based on all available information sources, the city cannot unquestionably conclude that the Luiseno people had exclusive use of the property. The City of Moreno Valley is obligated to consider all documented, reliable, and available information

-850-

Comment Letters

Responses

when preparing an EIR. As cited in Draft EIR Subsection 4.4, "Cultural Resources," in addition to information conveyed to the city by the Tribe, other information sources include the City of Moreno Valley General Plan Final Program EIR (SCH No. 2000091075), the property's cultural resources report included as Technical Appendix D, and correspondence from other tribes provided to the City of Moreno Valley as part of Native American consultation efforts conducted in compliance with California Government Code Section 65352.3. Based on all available information, the city identified varying data and disagreement among experts regarding the property's traditional Native American tribal affiliation. The city is not required to rectify the disagreement as part of the CEQA process. Under CEQA, the city is required to disclose the information. As such and in compliance with CEQA Guidelines Section 15151, the Draft EIR discloses the data that the city has on record concerning the property's tribal affiliation, concludes that the property was likely (but not categorically) a shared use area, and cites the information sources, including the August 17, 2011, letter received from the Tribe.

H-9: Comments acknowledged. Refer to Response H-8.

H-10: Comments acknowledged. Refer to Response H-8.

Comment Letters

and here that he became sick, finally expiring at Lake Elsinore after visiting many of the hot springs located within Luiseño and Cahuilla territory. He was cremated at *éxva Teméeku*. From Elsinore, the people spread out, establishing villages and marking their territories. The first people also became the mountains, plants, animals and heavenly bodies.

Many traditions and stories are passed from generation to generation by songs. One of the Luiseño songs recounts the travels of the people to Elsinore after a great flood (DuBois 1908). From here, they again spread out to the north, south, east and west. Three songs, called *Monïivol*, are songs of the places and landmarks that were destinations of the Luiseño ancestors, several of which are located near the Project area. They describe the exact route of the Temecula (Pechanga) people and the landmarks made by each to claim title to places in their migrations (DuBois 1908:110). Further, the story of *Táakwish* and *Tukupar* includes named places for events from the Idyllwild area to the Glen Ivy/Corona area (Kroeber 1906), which encompasses the Project area. In addition, Pechanga elders state that the Temecula/Pechanga people had usage/gathering rights to an area extending from Rawson Canyon near Lake Skinner on the east, over to Lake Mathews on the northwest, through the Corona area and down Temescal Canyon, and back to the Temecula area.

The Project is located to the east and within the sphere of a very large Luiseño village complex that stretches throughout Sycamore Canyon and to the northeast, and which happens to also be one of the densest village complexes known as *Qaxáalku.* This village was likely spread out over several square miles, which position has been substantiated by ethnographers[3]. Additional information about this important village is located below.

An additionally important element in the determination of Luiseño territorial boundaries is *Tóota yixélval* (rock art). *Tóota yixélval* can consist of petroglyphs (incised) elements, or pictographs (painted) elements. The science of archaeology tells us that places can be described through these elements. Riverside and Northern San Diego Counties are home to red-pigmented pictograph panels. Archaeologists have adopted the name for these pictograph-versions as the San Luis Rey style. The San Luis Rey style incorporates elements which include chevrons, zig-zags, dot patterns, sunbursts, handprints, net/chain, anthropomorphic (human-like) and zoomorphic (animal-like) designs. Tribal historians and historic photographs inform us that some design elements are reminiscent of Luiseño ground paintings. A few of these design elements, particularly the flower motifs, the net/chain and zig-zags, were sometimes depicted in Luiseño basket designs and can be observed in remaining baskets and textiles today.

H-11

[3] Merriam, C. Hart. *Studies of California Indians.* The Staff of the Department of Anthropology of the University of California, eds. Berkeley: University of California Press. 1955: Sparkman, Philip Stedman, *The Culture of the Luiseño Indians*. University of California Publications in American Archaeology and Ethnology 1908, 8(4).: Strong, William D. *Aboriginal Society in Southern California*. University of California Publications in American Archaeology and Ethnology 26, 1929: Bean, Lowell J. *Mukat's People: The Cahuilla Indians of Southern California*. University of California Press, Berkeley, 1972, p. 71

Responses

H-11: Comments acknowledged. Refer to Response H-8.

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Comment Letters

Tóota yixélval are also identified by archaeologists as cupules. Throughout Luiseño territory, there are certain types of large boulders, taking the shape of mushrooms or waves, which contain numerous small pecked and ground indentations, or cupules. Many of these cupule boulders have been identified within a few miles of the Project. Additionally, according to historian Constance DuBois:

> When the people scattered from Ekvo Temeko, Temecula, they were very powerful. When they got to a place, they would sing a song to make water come there, and would call that place theirs; or they would scoop out a hollow in a rock with their hands to have that for their mark as a claim upon the land. The different parties of people had their own marks. For instance, Albañas's ancestors had theirs, and Lucario's people had theirs, and their own songs of Munival to tell how they traveled from Temecula, of the spots where they stopped and about the different places they claimed (1908:158).

Within the *Qaxáalku* complex, there are at least seven recorded *tóota yixélval*-cupule boulders and many others with painted markings. Additionally, beyond the numerous bedrock mortars and slicks that have been identified in this complex, there are four ancestral quartz quarry locations. Quartz points were important to the *Payómkawichum* because it is taught that *Suukat* (deer), who gave his life for the starving People in our Creation Story, could only be taken by a point made of quartz. *Tóota yixélval* can also be found south in Motte Reserve, east near Sycamore Canyon and southeast at Perris Reservoir. As such, the fact that there are four quarry locations in this complex indicates how heavily utilized the village and surrounding areas were by our ancestors.

Thus, our songs and stories, our indigenous place names, as well as academic works, demonstrate that the Luiseño people who occupied what we know today as Moreno Valley and the surrounding landscape are ancestors of the present-day Luiseño/Pechanga people, and as such, Pechanga is culturally affiliated to this geographic area. Further, the Pechanga Tribe was designated as the affiliated Tribe by LSA Associates for the MJPA and the MARB (Schroth 1999). In fact, we provided the City with significant information supporting this assertion in a comment letter dated August 17, 2011 and further demonstrated the wealth of data clearly indicating that the project lies within Luiseno, not Cahuilla, territory. The fact that the consultant again failed to properly analyze the Project area in terms of cultural affiliation only further suggests the study is lacking and thus, cannot be relied upon by the City in making a determination regarding the impacts the Project will have on cultural resources. — H-12

The Tribe welcomes the opportunity to meet with the City to further explain and provide documentation concerning our specific cultural affiliation to lands within your jurisdiction. — H-13

Responses

H-12: Despite substantiation provided by the Tribe that the property was utilized by the Luiseno people, additional information is included in the city's administrative record for this project indicating that the property may also have also been used by the Cahuilla people. Also refer to Comment H-1 and Response H-12. The information is clearly noted in the Draft EIR, as required by CEQA.

H-13: The offer to meet with city staff is appreciated. Refer to Response H-7.

Comment Letters

Pechanga Comment Letter to the City of Moreno Valley
Re: Pechanga Tribe Comments on the March Business Center Project
June 13, 2012
Page 6

COMMENTS ON THE DEIR AND PROPOSED PROJECT IMPACTS TO CULTURAL RESOURCES

The proposed Project is located in a highly sensitive region of Luiseño territory and the Tribe believes that the possibility for recovering subsurface resources during ground-disturbing activities is high. The Tribe has over thirty-five (35) years of experience in working with various types of construction projects throughout its territory. The combination of this knowledge and experience, along with the knowledge of the culturally-sensitive areas and oral tradition, is what the Tribe relies on to make fairly accurate predictions regarding the likelihood of subsurface resources in a particular location. H-14

The Tribe is in receipt of the April 26, 2012 Draft Environmental Impact Report (DEIR) and associated appendices, including the revised 2012 archaeological study by Jones & Stokes. We are very concerned that the DEIR Section 4.4 Cultural Resources and the proposed mitigation measures lack any sensitivity to cultural resource issues and do not provide any protection for the physical cultural resources that may be impacted by the development. It is also evident that neither the DEIR nor the archaeological study have taken into account the comments and concerns made by the Tribe in our August 2011 comment letter on the archaeological study (as well as subsequent letters and consultations) which was available for the Project archaeologist and the DEIR consultant to review prior to submission of the revised 2012 archaeological study and the DEIR. H-15 H-16

The Tribe has worked diligently to research ethnographic studies, historical accounts, oral stories and traditional knowledge to determine the extent of its traditional lands and to provide this information to consultants and lead agencies in order to assist them with ancestral land use issues and protection of our ever-endangered cultural resources. This is so important to us that the Tribe has in-house staff employed solely to research and map traditional Luiseño named places in order to ensure the accuracy of our traditional boundaries and sensitivity for cultural resources. As we have shown in our August 2011 letter, the maps used for the archaeological study are variable in the territories depicted (depending on year published) and additionally do not list any Cahuilla named places within the Moreno Valley or MARB area. In fact, Pechanga is the only tribe to submit this type of documentation to the City. The Pechanga Tribe does not involve itself in areas outside the Tribe's traditional lands; we defer those projects to the tribes who are charged with watching their own ancestral lands. Therefore, it is confusing to the Tribe why both the revised archaeological study and the DEIR continue to assert that the Project area is located within Cahuilla territory. H-17

Additionally, the Tribe believes that the archaeological study fails to adequately analyze the potential for subsurface resources. The Tribe was not included in the archaeological survey so we are unable to concur that no cultural resources were on the surface of the Project; however, the Tribe understands that the majority of the Project's surface has been disturbed in some way, i.e. agriculture, horse track, some structures, etc., so the absence of physical cultural resources on the surface is probable and mostly likely possible. Nevertheless, that does not negate that there H-18

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Responses

H-14: The Final EIR discloses the Tribe's research results indicating that the property is located in Luiseno territory and that the Tribe considers the region to be sensitive. This additional information does not change the conclusion reached by the Draft EIR that impacts to archaeological resources would be less than significant because there are no recorded sites and no physical evidence on the property to indicate that the Project would cause a substantial adverse change in the significance of an archaeological resource as defined in California Code of Regulations, Section 15064.5.

H-15: Contrary to the statements in this comment, the Draft EIR acknowledges the possibility that archaeological resources might be discovered beneath the property's ground surface during ground-disturbing construction activities. Nevertheless, the mere possibility that historical or archeological resources might be located beneath the surface does not constitute a significant effect under CEQA. The threshold of significance is whether the project would cause "a substantial adverse change in the significance of an historical or archeological resource." Based upon the available evidence as discussed in the Draft EIR, and the lack of any identified historical or archeological resources on or near the property, the city appropriately concludes that the Project would not cause a substantial adverse change in the significance of an historical or archeological resource. Even though impacts are determined to be less than significant, the Draft EIR sets forth mitigation to ensure the proper treatment of archaeological resources in the event that resources are unearthed during the Project's construction process. In response to other comments in this letter, Mitigation Measures MM 4.4-1 through MM 4.4-7 are expanded in the Final EIR.

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H-16: Refer to Response H-6.

H-17: Refer to Response H-12.

H-18: Refer to Response H-15. Absent recorded sites or physical evidence on the subject property, it is not possible to verify if archaeological resources might be unearthed during ground disturbing construction activities and, if unearthed, that those resources would meet the definition of a significant archaeological resource. Regardless of the likelihood for resource discovery, the Draft EIR correctly concludes that the Project would not cause a substantial adverse change in the significance of an archaeological resource as defined by CEQA Guidelines Section 15064.5, because no such resources are known to occur on or near this property. And, the Draft EIR nonetheless set forth mitigation to ensure the proper treatment of resources should they be unearthed during Project construction. In response to other comments in this letter, Mitigation Measures MM 4.4-1 through MM 4.4-7 are expanded in the Final EIR. The absence of documented resources on this property is cited in the property's cultural resources report included as Technical Appendix D.

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is a high potential for identifying intact cultural resources and artifacts below the surficial disturbances. In fact, both the DEIR and the archaeological study state, "Buried cultural resources may exist within the project areas that do not possess surface indicators…" As no resources were identified on the surface, this statement affirms the Tribe assertion that buried cultural resources can and do exist subsurface. In fact, we know of an example where an entire high school was built (prior to CEQA so no environmental studies or monitoring of any kind were completed) on top of a fully intact cultural deposit dating back at least 10,000 years. We have many other examples of where a dearth of surface indicators for cultural resources existed and yet significant deposits were located below the surface and in some cases, the plow zone. The Tribe is highly concerned about the conclusions as presented in the DEIR because they are incorrect and conclusive without supporting data or analysis. The Tribe would also like to address the inclusion of the five points of reasoning for low sensitivity listed in Threshold 2 (pg 4.4-8), which we will show are based upon faulty assumptions as a result of insufficient data in the archaeological study and failure to take into account the information provided by the Tribe.

"1) There is no evidence that the property was part of an archaeological village complex;"

This statement is based solely on previously recorded archaeological sites and does not take into account tribal traditions or information that the Tribe can, and did, provide about the traditional use of this area. It is apparent that the Project archaeologist did not consult adequately with the Tribe and, if the DEIR and archaeological study are accepted by the City, will ultimately aid in the destruction of cultural resources. According to the archaeological study, a Project scoping notice was submitted to the tribes in October 2007. Two tribes responded and at that time and informed the City that this was a sensitive area. As listed in the DEIR, but not the revised archaeological study, an additional scoping notice was submitted to the tribes in 2011. Four tribes, including Pechanga, responded and again, stated that this was a sensitive area. The Tribe also requested further consultation as we have specific information about this parcel.

The Tribe knows, and has previously discussed with the City, that the Project area is located within the sphere of the Luiseño village *Qaxáalku* and we previously supplied this information in our August 2011 letter which was sent to the City well before the revised 2012 archaeological study was published. In our letter, we discussed our traditional knowledge, which is supported by ethnographic research, linguistic evidence, archaeological research and oral tradition, that the Project area is located within the sphere/village footprint of *Qaxáalku,* a Luiseño village complex. The main concentration of the village, which is located a little less than 4 miles from the Project, was identified by archaeologists in the 1980's and recorded as 40± individual sites. Additional archaeological and cultural studies were conducted in 2004-2006 and the individual sites were combined with other recently identified sites in the area and named archaeologically as the Cajalco Creek Complex or in Luiseño, *Qaxáalku.* An additional concentration of cultural sites, which could also be identified as communities within these larger complexes, is located to the west of Interstate 215. For the Luiseño ancestors, this village served as a mid-way point on their trail east to *Paa'vo*/Mystic Lake and points along the San Jacinto

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Responses

H-19: Draft EIR Subsection 4.4, "Cultural Resources" relies on multiple sources of information. The property's cultural resources report included as Technical Appendix D is not considered in isolation of other documented, reliable information, including but not limited to correspondence from Native American tribes provided to the City of Moreno Valley as part of Native American consultation efforts conducted in compliance with California Government Code Section 65352.3. This additional information does not change the conclusion reached by the Draft EIR that impacts to archaeological resources would be less than significant. Also refer to Response H-18.

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River, which has changed its course at least four known times in historical times. Further, the modern-day Cajalco Road located to the south of the Project was an important trade and travel route which connected *Paavo'* near Mystic Lake; *Qaxàalku*; and traditional gathering areas and plant resource collection areas near Lake Mathews and the villages of *Tu'ìuv* and *Paxàxva* in Corona. This route extended farther west, passing by the hot and cold springs located at the modern-day Glen Ivy over the mountains and to other habitations on the Pacific Ocean.

Based upon linguistic evidence, the etymology of the Spanish word Cajalco derives from the Luiseño word for "place of quail". The suffix "ku" is considered a more archaic form of the suffix "anga," which means place of (as in Pechanga…place of dripping water). Throughout the region containing *Qaxáalku* there are still quail but almost as important are the *kukúulam*, or burrowing owl, that once lived there in large amounts. The areas separated by low-lying bedrock boulders provide an ideal habitat for the owls. J.P. Harrington's/Pechanga informant Celestine Ahuayo relates: *"the (that type of) area was known as kukúulam pomkí, which means where the ground owl houses."* *Kukúul*/burrowing owl is important for the Luiseño because of his status in our Creation Story. Father Boscana wrote of the burrowing owls role in the Story: *'It was determined by (the lower animals) that Father Wuyóot should receive his death by means of poison. Kukúulmal (the small burrowing owl) perceived this and immediately gave the information to Wuyóot.'* Eventually, *Wuyóot* did succumb to poison but the burrowing owl gained a distinction in our Luiseño songs as a good messenger. The *Payómkawichum* (Luiseño people) would have revered the area where this "good apostle" lived by living there as well.

Like any large community, families were spread out over some distance to provide privacy and resource sharing. For example, archaeological documentation records C. Hart Merriam's visits to Luiseño settlements in the La Jolla region in 1901, in which he noted that "in many cases the Indians have great masses of tuna, 10-20 feet high, about or near their adobe houses" which "are not near together but scattered about, usually 1/8 or 1/4 of a mile apart and on a cleared place surrounded by chaparral."[4] Luiseño settlement patterns have been described ethnographically by Sparkman[5] and Strong[6] as sedentary and territorial, with the extended families residing in villages with individual living areas separated anywhere from ¼ of a mile to ½ a mile apart. The proposal that a village footprint covers an expansive area, as in the case of the Project area, with each family having its own milling feature(s) is supported by Bean when he argues that "homes were located some distance apart to provide privacy for families, if terrain permitted."[7] Bean and Smith also suggest that "a village might occupy three to five square

[4] Merriam, C. Hart. *Studies of California Indians.* The Staff of the Department of Anthropology of the University of California, eds. Berkeley: University of California Press. 1955
[5] Sparkman, Philip Stedman, *The Culture of the Luiseño Indians.* University of California Publications in American Archaeology and Ethnology 1908, 8(4).
[6] Strong, William D. *Aboriginal Society in Southern California.* University of California Publications in American Archaeology and Ethnology 26, 1929
[7] Bean, Lowell J. *Mukat's People: The Cahuilla Indians of Southern California.* University of California Press, Berkeley, 1972, p. 71

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miles."[8] To put the prehistoric landscape in contemporary terms, this patterning is akin to a map depicting the communities lines of Riverside, Moreno Valley, Jurupa, etc. that share jurisdictional boundaries but are considered distinct communities.

"2) The property does not have the same characteristics of other locations in the City of Moreno Valley where milling slicks, bedrock mortars, and other significant archaeological resources have been discovered;"

This is a generalized statement and should not be applied wholesale to the City of Moreno Valley. The statement assumes that only bedrock outcrops contain significant resources such as milling slicks and mortars, which are often the only remaining physical features left on the landscape as an indicator that there were people living in a particular area. This is simply an incorrect assumption as there are many other types of cultural resources that federal and state laws consider significant. For this Project, the historic topographic maps and aerials do confirm the archaeological study's statements that the Project is located in a relatively flat land; what is not expressed in that study is that this flat land extends for several miles surrounding the Project, which is also the City of Moreno Valley's jurisdiction. Based upon our records, within this valley there are multiple recorded cultural sites, including villages and smaller associated habitation areas that are significant. For example, to the east, near Mystic Lake, is a village referred to earlier in these comments as *Paavo'*. While located just outside the City's jurisdiction, this village is located in partly flat agricultural land and at the base of a hillside. Cultural deposits, including household artifacts such as manos, metates, lithic tools, debitage and ceramics, midden, bedrock kitchens (milling features) as well as ceremonial items have been confirmed through archaeological excavations and predictive modeling to extend more than 20 feet below the surface. *Paavo'* was confirmed to be archaeologically significant per the California Register of Historic Resources, the National Register of Historic Places and through Section 4F of the Department of Transportation Act. And, the deepest, most 'significant' portions of this village were located in flat lands. Therefore, the blanket assumption that no significant sites can be located in flat, agricultural lands is incorrect. H-20

What is further disconcerting to the Tribe is that the historic topographic maps show a mapped blue-line stream flowing along the western boundary of the Project. This waterway can be seen as far back as the 1954 topographic map which is the oldest map available for this area depicting colored streams[9]. Although this stream has since been channelized into the Perris Valley Storm Drain, the Tribe knows that water sources provided for prime living conditions, and in our research, are often indicative of burial locations. To further substantiate the Tribe's belief that there was a substantial population living within and near the Project, there are several

[8] Bean, Lowell J. and Charles R. Smith. Serrano: In *Handbook of North American Indians, Volume, 8, California,* edited by Robert Heizer, Smithsonian Institution, Washington D.C., p. 43.
[9] In comparison, the March Air Reserve Base was originally constructed, albeit on a smaller level, in 1918. No historic map prior to 1948 even shows the base in this area.

H-20: The quoted statement is based on the City's General Plan EIR and the information source is clearly cited. While noting that the Project site is not situated near a valley edge and does not contain rock outcrops, the Draft EIR addresses the subject property specifically and does not make a blanket assumption about the resource discovery potential on all flat agricultural lands. Refer to Responses H-14 and H-15.

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natural springs located in the area which would have supplied fresh water to aboriginal inhabitants. This is important as ethnographic research shows that drinking water was not generally collected from rivers but from wells or springs. Additionally, the Tribe recently monitored a project located in the City of Moreno Valley that was historically flat and used for agriculture and horse ranching lands. Additionally, there were also blue-line streams located on this project. Several cultural resources were identified subsurface within the first few weeks of grading on that project, thus supporting our assertion that flat topography and a lack of surface indicators for cultural resources is far from dispositive on the potential for buried deposits.

"3) No archaeological resources were discovered on the site during an intensive pedestrian survey;"

While the Tribe was not invited to participate in the original archaeological survey, based upon information provided by the City as well as historic and modern aerial maps, it is apparent that the Project surface has been disturbed by structures since the early 1950's and by the race track activities since the early 1960's. However, this does not preclude the fact that subsurface cultural resources may exist below these disturbances. As we stated in our previous comments, there may be a dearth of recorded sites in the City's jurisdiction, and this area for a number of reasons. First, there was a long standing practice by early non-Indian settlers of removing surface artifacts thus removing clear, surface indications of the presence of cultural resources. We know, and it is confirmed in the DEIR, that there were people in this area since the early 1900's[10] and on this Property specifically since the early 1950's as evidenced by the structures on historic topographic maps. Therefore, it is not unrealistic to presume that cultural resources and artifacts would have been picked up and collected by these early settlers. H-21

Secondly, and more importantly, much of the construction in the City and the adjacent MARB was done prior to CEQA. The March Air Reserve Base, which was originally named the Alessandro Flying Training Field, was constructed in 1918. As such, there was no archaeological or tribal monitoring to identify sites, properly mitigate for such resources or record archaeological resources before current state law was implemented. In fact, it is likely that resources would have just been destroyed because construction crews are not trained to identify cultural deposits. Development projects built before the passage of the California Environmental Quality Act were not subject to today's stringent environmental requirements and it was not until the late 20th century that sufficient archaeological and cultural work began occurring as standard practices for construction projects. In addition, it is our experience that the foundations for buildings constructed in the 1950's or earlier were not excavated to the same depths now required by building codes and standards. This means that even though the Project area has been "developed" or had structures on it, there still remains the high potential for H-22

[10] The 1901historic map shows several roadways passing through this area, providing evidence of historic settlement early in this portion of Moreno Valley.

Responses

H-21: Comments acknowledged. Refer to Response H-15.

H-22: Comments acknowledged. Refer to Response H-15.

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subsurface resources because of the depth of the foundation and the unknown resources that may have been impacted during construction of the existing buildings.

In fact, this exact scenario was discovered recently in the City of San Marcos on a project the Tribe was monitoring. Not only were artifacts found scattered across the entire project site, but a significant intact cultural deposit was discovered just below the surface, which had been used for agricultural purposes for decades and included structures. This property also followed a waterway and had numerous villages within the area, similar to this Project.

"4) There has been prior and continued disturbance of near-surface soils on the subject property;"

The Tribe concurs with this statement; however, the DEIR states that "the subject property contains damp, loose, disturbed top soils to depths of 12 to 16 inches." Further, "Since removal of the structures [1980s], the entire property has been routinely disked, to depths of about 18 inches. No archaeological resources have been previously identified in the top 18 inches of disturbed soil and the potential to discover unknown resources in those 18 inches is very low." The Tribe does not dispute this. But what is contradictory and confusing is that the DEIR further states that "The maximum depth of proposed grading shown on the Project's grading plans is 42 inches (3.5 feet), except in proposed detention basin areas that would require limited, deeper excavations to approximately 10 feet in depth. Therefore, the potential for discovery of previously unknown archaeological resources, if present, would be limited to detention basin areas and a 24-inch zone between the 18 inches of top soils that have previously been disturbed and the 42-inch maximum depth of grading." The DEIR states that the potential for subsurface resources to be located in the remaining two feet of young alluvium on the property is low, as if somehow cultural resources cannot be identified within two feet of soils. What is further confounding is that the DEIR totally ignores the potential for the identification of cultural resources in the two basins that will be excavated, a total of 8 feet and 6 inches of young alluvium that may contain cultural resources, and is so acknowledged in the archaeological report: "…buried cultural resources may exist within the project areas that do not possess surface indicators, despite previous ground disturbance in the project parcel…"

H-23

By not addressing fully the possibility of identifying subsurface cultural resources in the environmental documents, the City is agreeing to participate in the destruction of the Tribe's culture resources and tribal heritage. The proposed mitigation measures in the DEIR do not require an archaeological or tribal monitor on the Project during grading but relies on the untrained construction team to make these identifications. In this regard, the DEIR fails to adequately analyze cultural resources or provide for protection, avoidance and/or mitigation as CEQA mandates. In fact, the lack of any monitoring on this Project will ensure resources are destroyed. Thus, it is not possible for the City to determine whether impacts to cultural resources have been mitigated to below a level of significance because there are no mitigation measures

H-24

Responses

H-23: The depths of ground disturbance noted in this comment are accurate. Contrary to this comment, the Draft EIR states that cultural resources could possibly occur beneath the surface of the site and be potentially unearthed during Project construction. Refer to Response H-15.

H-24. Because the Project would not cause a significant adverse change in the significance of a cultural resource, no mitigation measures are required. The Draft EIR identifies that archaeological resources could possibly be unearthed during Project construction, but the mere possibility of unearthing cultural resources does not constitute a significant effect under CEQA. Although no mitigation measures are required under CEQA, to address the commenter's concerns the Final EIR includes additional information about Luiseno sensitivity and as stated in Response H-15, Mitigation Measures MM 4.4-1 through MM 4.4-7 are expanded in the Final EIR to further ensure the proper treatment of archaeological resources in the event that resources are unearthed during the Project's construction process. The statement that reliance on a construction supervisor will ensure the destruction of resources is unequivocally false. However, in response to this comment, expanded Mitigation Measures MM 4.4-1 through MM 4.4-4 in the Final EIR require full time monitoring by a professional archaeologist.

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which would offer protection to such resources. As such, the DEIR is flawed and does not pass muster under CEQA.

"5) The potential zone of discovery is limited to a 24-inch zone and detention basin areas. As such, impacts are less than significant because the Project would not cause a substantial adverse change in the significance of an archaeological resource; no known resources exist at the site and potential for discovery of a resource that meets the definition of a significant resource given in California Code of Regulations Section 15064.5 is low."

As discussed above, an assumption that no cultural resources can be located within two to 8 ½ feet of soil is inaccurate. The Tribe asserts that the potential for resources does exist and that the DEIR does not adequately provide mitigation for them. Without additional excavation, the City or the DEIR consultant cannot know for sure that cultural resources will not be impacted. As it is infeasible to conduct an extensive trenching program, the Tribe requests that the following mitigation measures be applied to the Project in order to ensure that should cultural resource be identified, they will be appropriately cared for and mitigated. — H-25

PROJECT MITIGATION MEASURES

The Tribe believes that the DEIR is flawed and does not adequately provide for protection and avoidance of cultural resources as mandated by CEQA. As we have shown above and as stated in the archaeological study, the potential for subsurface resources to be identified during earthmoving activities is high. Therefore, the Tribe requests the addition of the following mitigation measures and conditions of approval in order to appropriately mitigate for cultural resources (strikeouts are deletions and underlines are additions): — H-26

MM 4.4-1 ~~Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan:~~

~~"If any suspected archaeological resources are discovered during ground disturbing activities, the construction supervisor is obligated to halt work in a 100 foot radius around the find and call a qualified archaeologist to the site to assess the significance of the find. A qualified archaeologist shall evaluate the suspected resource. If the archaeologist determines that the find does not meet the CEQA standards of cultural significance given in the California Code of Regulations Section 15064.5, construction shall be permitted to proceed. However, if the archaeologist determines that further information is needed to evaluate significance, the City of Moreno Valley shall be notified and a treatment plan shall be prepared and implemented in consultation with the City and the culturally affiliated Native American tribe and in accord with Public Resources Code Section 21083.2.~~ At least 30 days prior to beginning project construction, — H-27

H-25: The Draft EIR identifies that archaeological resources could possibly be unearthed during Project construction. Refer to Responses H-14 and H-15. With implementation of the mitigation measures identified in the Final EIR, the proper and lawful treatment of archaeological resources and Native American human remains would be ensured, should any of these resources be discovered during ground-disturbing construction activities on the property. Also refer to Responses H-26 through H-31.

H-26: The Draft EIR disclosed adequate information to enable informed public comment and decision-making in regards to archaeological resources. Based upon considerations discussed in the Draft EIR, the city does not agree that the potential is high for significant subsurface resources to be identified during earth moving activities on the property. Among other factors, the property is not a sacred site or the location of a former village. Despite extensive study of the Project site, including but not limited to the intensive pedestrian survey, literature and records search, archeological study, and surveys referenced in the Draft EIR, and the extensive land development in the area, only one isolated prehistoric stone artifact has been identified within 0.5 miles from the Project site. The city considered the information provided by Pechanga Tribe, and concludes that such information does not support a conclusion that significant cultural resources are likely to be identified during earth moving activities. Information added to Subsection 4.4, "Cultural Resources" in the Final EIR does not change the conclusions drawn in

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the Draft EIR. Refer to Responses H-14, H-15, H-19, H-24, and H-25. Because the Project will not have a significant effect on cultural resources, no mitigation measures are required under CEQA. Nevertheless, to address the commenter's concerns, Mitigation Measures MM 4.4-1 through MM 4.4-7 are expanded in the Final EIR to further ensure the proper treatment of archaeological resources in the event that resources are unearthed during the Project's construction process.

H-27 The specific suggestion in this comment that appears in underlined text is not added to the Final EIR verbatim because full time Native American monitoring is not required to ensure the identification of suspected resources. Expanded Mitigation Measures MM 4.4-1 through MM 4.4-4 in the Final EIR require full time monitoring of earthmoving activities that occur in native, previously undisturbed soils by a professional archaeologist, who will be charged with notifying and involving tribal representatives in the event that resources are unearthed.

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the Project Applicant shall contact the Pechanga Tribe to notify the Tribe of grading, excavation and the monitoring program, and to coordinate with the City of Moreno Valley and the Tribe to develop a Cultural Resources Treatment and Monitoring Agreement. The Agreement shall address the treatment of known cultural resources, the designation, responsibilities, and participation of professional Native American Tribal monitors during grading, excavation and ground disturbing activities; project grading and development scheduling; terms of compensation for the monitors; and treatment and final disposition of any cultural resources, sacred sites, and human remains discovered on the site.

Both the archaeological monitor and Pechanga tribal monitor shall have the authority to stop and redirect grading in order to evaluate the significance of any archaeological resources discovered on the property. Tribal and archaeological monitors shall be allowed to monitor all grading, excavation and groundbreaking activities within native soils or those that have not been subject to past agricultural, horse racing or other disturbances as determined by the Project archaeologist, the Tribe and the Applicant prior to earthmoving activities. Tribal and archaeological monitors shall also have the ability to monitor any trenching activities that extend into native soils, including off-site activities.

The landowner shall relinquish ownership of all archaeological artifacts that are of Native American origin found on the Project site to the culturally affiliated Native American tribe for proper treatment and disposition. All sacred sites, should they be encountered within the project area, shall be avoided and preserved as the preferred mitigation, if feasible.

MM 4.4-2 Prior to grading permit issuance, the Project Applicant shall retain a Riverside County qualified archaeological monitor to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources. Any newly discovered cultural resource deposits shall be subject to a cultural resources evaluation. — H-28

MM 4.4-23 Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan:

"If any suspected paleontological resources are discovered during ground disturbing activities, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call a qualified paleontologist to the site to assess the significance of the find. A qualified paleontologist shall evaluate the suspected resource. If the paleontologist determines that the find is not unique, construction shall be permitted to proceed. However, if the paleontologist determines that further information is needed to evaluate significance, the City of Moreno Valley shall be notified and a treatment plan shall be prepared and — H-29

Responses

H-28: Refer to Response H-27.

H-29: No change is requested to Mitigation Measure MM 4.4-6 (renumbered).

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implemented in consultation with the City. Discovered fossils or samples of such fossils collected by the paleontologist shall be cleaned and prepared to allow for identification. Specimens recovered shall be donated to a qualified scientific institution for preservation and study. Examples of qualified institutions include, but are not limited to, the San Bernardino County Museum (Redlands, California) or the Western Center for Archaeology and Paleontology (Hemet, California)."

MM 4.4-3~~4~~ ~~If human remains are discovered during earthwork or other construction activities, work in the affected area shall cease immediately and the Riverside County Coroner shall be notified. The remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made by the Coroner. If the Riverside County Coroner determines the remains to be Native American, the California Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then immediately notify the "most likely descendants" of receiving notification of the discovery. The most likely descendants shall then make recommendations within 48 hours, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code Section 5097.98, "Native American Historical, Cultural, and Sacred Sites."~~

If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then immediately identify the "most likely descendant(s)" of receiving notification of the discovery. The most likely descendant(s) shall then make recommendations within 48 hours, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code 5097.98 and the Treatment Agreement described in MM 2.

H-30

MM 4.4-5 If inadvertent discoveries of subsurface archaeological/cultural resources are discovered during grading or other earth-moving activities, the Developer, the Project archaeologist, and the Tribe shall assess the significance of such resources and shall meet and confer regarding the mitigation for such resources. Pursuant to Calif. Pub. Res. Code § 21083.2(b), avoidance is the preferred method of preservation for archaeological resources. If the Developer, the project archaeologist and the Tribe cannot agree on the significance or the mitigation for such resources, these issues will be presented to the Planning Director for decision. The Planning Director shall make the determination based on the provisions of the California Environmental Quality Act with respect to

H-31

Responses

H-30: Because the Project will not have a significant effect on cultural resources, no mitigation measures are required under CEQA. Nevertheless, to address the commenter's concerns, Mitigation Measure MM 4.4-7 (renumbered) is revised in the Final EIR as requested by this comment.

H-31: Because the Project will not have a significant effect on cultural resources, no mitigation measures are required under CEQA. Nevertheless, to address the commenter's concerns, Mitigation Measures 4.4-1 through 4.4-4 are expanded in the Final EIR to account for tribal involvement in the assessment of archaeological resources should they be unearthed during ground-disturbing construction activities. The City of Moreno Valley does not have a procedure in place for the appeal of archaeological significance or mitigation decisions to the Planning Commission.

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archaeological resources and shall take into account the religious beliefs, customs, and practices of the Tribe. Notwithstanding any other rights available under the law, the decision of the Planning Director shall be appealable to the Planning Commission and/or City Council.

The Tribe reserves the right to fully participate in the environmental review process, as well as to provide further comment on the Project's impacts to cultural resources and potential mitigation for such impacts.

The Pechanga Tribe looks forward to working together with the City of Moreno Valley in protecting the invaluable Pechanga cultural resources found in the Project area. The Tribe thanks the City for continuing consultation. Once you have received these comments, please contact me at 951-770-8104 or at ahoover@pechanga-nsn.gov to continue our face to face consultations and schedule a meeting *prior to* the scheduled Planning Commission meeting, so that we can address our concerns further, including how the DEIR will be revised to accurately reflect tribal concerns and appropriate mitigation.Thank you.

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Sincerely,

Anna Hoover
Cultural Analyst

Cc Pechanga Office of the General Counsel

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Sacred Is The Duty Trusted Unto Our Care And With Honor We Rise To The Need

Responses

H-32: The City of Moreno Valley acknowledges the Tribe's right to fully participate in the CEQA process for this project. Refer to Response H-7. The contact information for Ms. Anna Hoover is noted.

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Comment Letters

EASTERN MUNICIPAL WATER DISTRICT
SINCE 1950

June 13, 2012

Board of Directors

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Joseph J. Kuebler, CPA

Vice President
Philip E. Paule

Ronald W. Sullivan
Randy A. Record
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Director of The Metropolitan Water District of So. Calif.
Randy A. Record

Board Secretary and Assistant to the General Manager
Rosemarie V. Howard

Legal Counsel
Redwine and Sherrill

Mark Gross, Senior Planner
City of Moreno Valley
P.O. Box 88005
Moreno Valley, CA 92552-0805

SUBJECT: March Business Center
Notice of Availability (NOA) of a
Draft Environmental Impact Report

Dear Mr. Gross:

Thank you for the opportunity to review the Notice of Availability (NOA) for the above referenced project. The project proposes to subdivide a 75.05 acre portion of land into four (4) separate parcels to include four (4) individual industrial buildings, totaling 1,484,407 square feet. The project also includes amendments to the City of Moreno Valley's General Plan and Specific Plan No. 208, to realign and reclassify Krameria Avenue. Eastern Municipal Water District (EMWD) offers the following comments. — I-1

The subject project requires water, sewer and recycled water services from EMWD. The details of said service connection points will be further detailed in a separate document, known as EMWD's Plan of Service, which is still not yet developed by the project proponent. To that end, EMWD requires dialog with the project proponent, to develop the EMWD Plan of Service, as clarified in the attached letter, which was previously sent to the project's engineer. — I-2

Again, EMWD appreciates the opportunity to comment on this project. Please forward the Final Environmental Impact Report to the attention of Helen Stratton at the mailing address shown on page one. If you have questions concerning these comments, please feel free to contact Helen Stratton at 951 928-3777, Ext. 4545, or Eli Rodriguez at Ext. 4450. — I-3

Sincerely,

Joseph B. Lewis
Director of Engineering Services

JBL:hs
Cc: Eli Rodriguez
Encls.

Mailing Address: Post Office Box 8300 Perris, CA 92572-8300 Telephone: (951) 928-3777 Fax: (951) 928-6177
Location: 2270 Trumble Road Perris, CA 92570 Internet : www.emwd.org

Responses

I-1: Comments describing the scope of the proposed Project are acknowledged; no response is necessary.

I-2: A due diligence meeting with the Project Applicant, the Applicant's engineer, and EMWD staff was held on May 10, 2012. The City of Moreno Valley acknowledges that the Project Applicant will be required to develop a Plan of Service (POS) that will require review and approval by EMWD prior to proceeding with improvement plans for the Project. The city further acknowledges the scope of the POS process, as identified in EMWD's June 7, 2012, letter to Thienes Engineering, which is included as Comment Letter J, below.

I-3: The city acknowledges this comment and will forward a copy of the Final EIR to Helen Stratton at the contact information provided.

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COMMENT LETTERS

RESPONSES

EASTERN MUNICIPAL WATER DISTRICT
SINCE 1950

June 7, 2012

Board of Directors

President and Treasurer
Joseph J. Kuebler, CPA

Vice President
Philip E. Paule

Ronald W. Sullivan
Randy A. Record
David J. Slawson

General Manager
Paul D. Jones II, P.E.

Director of The Metropolitan Water District of So. Calif.
Randy A. Record

Board Secretary and Assistant to the General Manager
Rosemarie V. Howard

Legal Counsel
Redwine and Sherrill

Thienes Engineering
14349 Firestone Boulevard
La Mirada, CA 90638

Re. March Business Center

Attn. Hien Le

In order to receive water, sewer or recycled water service(s) from Eastern Municipal Water District (EMWD), the following information will be helpful to the project proponent:

EMWD requires beginning dialogue with the project proponent at an early stage in site design and development, via a one-hour complimentary Due Diligence meeting. To set up this meeting, the project proponent should complete a Project Questionnaire (form NBD-058) and submit to EMWD. To download this form or for additional information, please visit our "New Development Process" web page, under the "Businesses" tab, at www.emwd.org. This meeting will offer the following benefits:

1. Describe EMWD's development work-flow process
2. Identify project scope and parameters
3. Preliminary, high level review of the project within the context of existing infrastructure
4. Discuss potential candidacy for recycled water service

Following the Due Diligence meeting, to proceed with this project, a Plan Of Service (POS) will need to be developed by the developer's engineer, and reviewed/approved by EMWD prior to submitting improvement plans for Plan Check. The POS process will provide the following:

1- Technical evaluation of the project's preliminary design
2- Defined facility requirements, i.e. approved POS
3- Exception: for feasibility evaluation of a purchase acquisition, only a conceptual facilities assessment may be developed.

If you have questions or concerns, please do not hesitate to contact me.

Sincerely,

for Eli Rodriguez
New Business Development Department
(951) 928-3777 x4450
rodrigue@emwd.org

Mailing Address: Post Office Box 8300 Perris, CA 92572-8300 Telephone: (951) 928-3777 Fax: (951) 928-6177
Location: 2270 Trumble Road Perris, CA 92570 Internet : www.emwd.org

J-1

J-1: Refer to Response I-2, above. As this letter does not address the Project's environmental effects, no further response is necessary.

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Comment Letters

Responses

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

E-MAILED: June 14, 2012 June 14, 2012

Mr. Mark Gross, AICP, Senior Planner MarkG@moval.org
Community & Economic Development Department
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92553

Draft Environmental Impact Report (Draft EIR) for the Proposed March Business Center, PA011-0007 (Tentative Parcel Map No. 35879)

The South Coast Air Quality Management District (AQMD) staff appreciates the opportunity to comment on the above-mentioned document and the lead agency's willingness to provide technical files for our review. As AQMD staff did not receive the final set of technical files until yesterday, we would appreciate the lead agency considering these late comments. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final CEQA document. K-1

In the project description, the lead agency proposes construction of warehouse distribution center and light industrial uses totaling 1,484,407 square feet on a 75.05 acre site that will be sub-divided into four parcels. Warehouse distribution center buildings will be constructed on three of the four parcels totaling 1,467,675 square feet with the remaining parcel occupied by light industrial uses. The proposed project would include 264 loading docks servicing 1,267 trucks operating daily at the site. Construction would be completed in two phases starting in January 2013 with project build-out estimated in Year 2016. During Phase I, the entire 75.05 acre site would be graded with approximately 111,030 cubic yards of cut and 159,957 cubic yards of fill occurring that would be balanced on-site. K-2

The AQMD staff is concerned that the proposed construction and operation of the project will yield emissions that exceed the AQMD recommended significance thresholds. Additional feasible mitigation measures should be considered to minimize these impacts in the Final EIR. K-3 In addition, although project cumulative air quality and health effect impacts were discussed in general terms, specific past, current, and foreseeably related projects were not detailed in the Draft EIR. K-4 Since there are a number of related projects involving diesel fueled trucks near the project area, these previous and current projects should be included in the cumulative portion of the Final EIR. Lastly, some calculation methodologies in the Health Risk Assessment should be reviewed and modified in the Final EIR. K-5 Detailed comments follow in the attachment.

K-1: Although this comment letter was received by the City of Moreno Valley three days following the close of the Draft EIR public review period on June 11, the city will respond to these comments.

K-2: The description of the Project described in this comment is accurate.

K-3: As concluded in the Draft EIR, after the implementation of the Project Requirements and the Mitigation Measures identified in the Draft EIR, short-term emissions of NOx during Phase I of Project construction and long-term emissions of VOCs and NOx during Project operation would remain above significance thresholds. Operational emissions of VOCs and NOx are predominantly from mobile source emissions that are beyond the control of the Project Applicant, future Project tenants, and the City of Moreno Valley. The on-site, operational area sources of air pollution that are within the direct control of the Project Applicant

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Comment Letters

Responses

and future users of the Project during are well below the significance thresholds. Only the mobile emissions component, which is highly speculative and outside the control of the Applicant, the future tenants, and the city, exceeds the thresholds. As discussed in the Draft EIR, the assumptions used in estimating mobile source emissions attributable to the Project likely results in the over-estimation and double-counting of emissions for distribution warehouse centers like the proposed Project, because the proposed land use is likely to attract (divert) existing vehicle trips that are already on the circulation system, as opposed to generating new trips. Distribution centers such as this Project are developed to facilitate more efficient distribution of goods, and likely result in an overall reduction in regional VMT by heavy duty freight trucks. Thus, development of this Project may not create 1,267 new daily truck trips within the region, as is assumed for this Project in the Draft EIR. Most, if not all, of those truck trips will exist within this region either with or without this Project – they will just travel to different destinations. There are no known methodologies for estimating the net effect of redistributed truck trips on freight truck vehicle miles within the region. Thus, the estimation of mobile source emissions caused by this Project is highly speculative and likely results in the over-estimation of mobile source emissions caused by this project. Refer to Responses K-8 through K-24 and K-37 through K-50, where each additional measure suggested by the SCAQMD is addressed.

K-4: The cumulative air quality analysis is based on the Project's traffic report, which considered 52 cumulative projects in the study area. As such, specific past, current, and foreseeably related projects were thoroughly considered. Also refer to Response K-35.

K-5: Refer to Responses K-26 through K-34.

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Comment Letters

Mr. Mark Gross, AICP
Senior Planner

June 14, 2012

Pursuant to Public Resources Code Section 21092.5, please provide the AQMD with written responses to all comments contained herein prior to the adoption of the Final Environmental Impact Report. The AQMD staff is available to work with the Lead Agency to address these issues and any other air quality questions that may arise. Please contact Gordon Mize, Air Quality Specialist – CEQA Section, at (909) 396-3302, if you have any questions regarding these comments. K-6

Sincerely,

Ian MacMillan
Program Supervisor, Inter-Governmental Review
Planning, Rule Development & Area Sources

IM:GM

SBC120427-05
Control Number

Responses

K-6: The City of Moreno Valley acknowledges this comment and will forward a copy of the Final EIR, including the responses to public comment, to the SCAQMD in accordance with Public Resources Code Section 21092.5 prior to certification of the Final EIR. The contact information for Mr. Ian McMillian is noted.

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Comment Letters

Mr. Mark Gross, AICP
Senior Planner

June 14, 2012

Operational Mitigation Measures

1. Because the lead agency has determined that air quality impacts from project operations will exceed recommended regional thresholds for VOC and NOx, the AQMD staff recommends that the lead agency consider the following change and additional mitigation measures along with the measures referenced by the lead agency on page 4.2-26 of the Draft EIR. Other lead agencies that have used these measures include the City of Banning[1], Riverside County[2], City of San Bernardino[3], and the San Pedro Bay Ports[4], among others. — K-7

   Recommended change:

   MM 4.2-6 Prior to issuance of occupancy permits, the applicant shall provide evidence that a sign has been installed at each exit driveway, providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow. Truck routes shall be clearly marked with trailblazer signs, so trucks will not enter residential areas. — K-8

   Recommended additions:

   - At project start, all heavy duty trucks entering the property must meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025. — K-9
   - If the above clean truck requirements are infeasible, a phase-in schedule should be put forth that will feasibly achieve emission reductions as soon as possible, and faster than existing regulations. Should an alternative schedule be found necessary, the AQMD staff should be consulted prior to approving the schedule. — K-10
   - The facility operator will maintain a log of all trucks entering the facility to ensure that on average, the daily truck fleet meets the quantities and emission standards listed in the Draft EIR. This log should be available for inspection by city staff at any time. — K-11
   - The facility operator will ensure that site staff in charge of keeping the daily log and monitoring for excess idling will be trained/certified in diesel health effects and technologies [for example, by requiring attendance at CARB approved courses (such as the free, one-day Course #512)]. — K-12
   - Limit the daily number of trucks allowed at each facility to levels analyzed in the Final EIR. If higher daily truck volumes are anticipated to visit the site, the lead — K-13

[1] Banning Business Park
http://banning.ca.us/archives/30/July%2013,%202010%20City%20Council%20Agenda.pdf
[2] Mira Loma Commerce Center
http://www.rctlma.org/online/content/conditions_of_approval.aspx?PERMITNO=pp17788
[3] Palm/Industrial Distribution Center http://www.ci.san-bernardino.ca.us/civica/filebank/blobdload.asp?BlobID=11793
[4] Clean Trucks Program http://www.cleanairactionplan.org/cleantrucks/

Responses

K-7: The City of Moreno Valley has carefully considered the additional suggestions made by the SCAQMD. Regardless of which mitigation measures may or may not be imposed by other CEQA lead agency jurisdictions, pursuant to CEQA Guidelines Section 15126.4(a)(2), "[m]itigation measures must be fully enforceable through permit conditions, agreements, or other legally binding instruments." Additionally, CEQA Guidelines Section 15126.4(a) requires that mitigation measures must be feasible, have an essential nexus and proportionality to the impact, and are not required for effects which are not found to be significant. The footnotes referenced by the SCAQMD in this comment do not include measures consistent with those recommended in the remainder of this comment letter. Also, some of the suggestions made by the SCAQMD in the remainder of this comment letter go above and beyond the measures included in their citations and regional rules already in effect. For example, the recommendation to limit trucks accessing the Project site to 2010 engines or newer (refer to Comment K-9) is even more stringent than the Port of Los Angeles/Long Beach's Clean Truck Program (CTP) which requires all trucks accessing the Port to meet 2007 engine standards. Specific responses to each measure suggested by the SCAQMD are given in Responses K-8 through K-24 and Responses K-37 through K-51.

K-8: The City of Moreno Valley's truck route is already signed under existing conditions, consisting of pole-mounted white signs with black lettering and directional arrows; therefore, there is no reason to condition this Project to install signs other than the signs required by Mitigation Measure MM 4.2-6 at each Project exit driveway.

Comment Letters

Responses

K-9: Diesel engine emission standards are regulated under state law, which establishes a comprehensive scheme for improving emissions from diesel-fueled vehicles. See 13 Cal. Code Regs., §2025. Local governments have no authority to enact vehicle emission standards, and such a requirement may be illegal. The recommendation to limit trucks accessing the Project site to 2010 engines or newer is more stringent than the Port of Los Angeles/Long Beach's Clean Truck Program (CTP) which requires all trucks accessing the Port to meet 2007 engine standards. Therefore, the vast majority, if not all, of prospective tenants of the Project will not and feasibly cannot have vehicle fleets that are limited to only those trucks meeting the 2010 engine standards. Additionally, the prospective tenants for this Project are not known, and as such, it is unknown whether the future user(s) of the facility will have the ability to limit incoming trucks to only those meeting the 2010 engine emission standards. Moreover, there is no mechanism by which the City of Moreno Valley can feasibly or legally enforce this suggested measure. Therefore, this measure is found to be infeasible and is not added to the Final EIR.

K-10: For the reasons discussed in Response K-9, above, this measure is found to be infeasible and is not added to the Final EIR.

K-11: Because it is infeasible to restrict heavy duty truck access to the Project based upon each truck's engine emissions, as discussed in Response K-9, above, maintaining a log of trucks entering the facility will not avoid or substantially lessen emissions, and is thus also considered ineffective and infeasible.

K-12: Because it is infeasible to restrict heavy duty truck access to the project based upon each truck's engine emissions, as discussed in K-9, above, requiring site staff to be trained or certified in diesel health effects and technologies will not avoid or substantially lessen emissions, and is thus also considered ineffective and infeasible.

Comment Letters

Responses

K-13: Refer to Response K-11. The Draft EIR assumed that the Project would attract a total of 1,267 daily truck trips, the calculation of which was derived from trip generation rates specified in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 8th Edition, 2008. Use of the ITE rates are standard industry practice for the calculation of projected traffic volumes in traffic studies supporting CEQA documents throughout the State of California. The Draft EIR also assumed that each of the daily truck trips would cover 40.52 miles each way. For reasons stated in the Draft EIR as well as Response K-3, above, this assumption is believed to over-estimate and double-count the mobile source emissions being attributed to the Project. Thus, the amount of mobile source emissions estimated in the Draft EIR is dependent not only on the number of daily truck trips, but also on the trip lengths, which is highly speculative and cannot be determined with any degree of confidence. CEQA does not require that facilities be limited to the level of activity assumed in the environmental analysis. Moreover, to impose a limitation on the number of truck trips, as the SCQAMD suggests, would limit the economic activit at the facility, and could result in disruption in business operations leadin to undesirable and unintended consequences (e.g., queuing or stacking c trucks outside the facility until midnight). For these reasons, this measure is found to be infeasible and is not added to the Final EIR.

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Comment Letters

Responses

Mr. Mark Gross, AICP June 14, 2012
Senior Planner

agency should commit to re-evaluating the project through CEQA prior to allowing this higher activity level.

- Require at least a portion of the fleet to utilize alternative fueled technologies. K-14
- The 2012 Regional Transportation Plan includes a zero/near-zero emissions truck corridor along the SR-60 freeway. Because at least a portion of the trucks serving this project may be expected to travel along this route, the project should provide onsite alternative fueling infrastructure, such as electric charging stations or natural gas fueling that will help facilitate these low-emitting trucks. K-15
- At a minimum, require tenants upon occupancy that do not already operate 2007 and newer trucks to apply in good faith for funding to replace/retrofit their trucks, such as Carl Moyer, VIP, Prop 1B, or other similar funds. Should funds be awarded, the tenant should also be required to accept and use them. K-16
- All onsite cargo handling equipment (e.g., hostlers, forklifts, etc.) should be powered by zero/near-zero emission technologies, such as electricity. K-17
- Design the warehouse/distribution center to ensure that truck traffic within the facility is located away from the property line(s) closest to its residential or sensitive receptor neighbors. K-18
- Restrict overnight parking in residential areas. Establish overnight parking within the warehouse/distribution center where trucks can rest overnight. K-19
- Establish area(s) within the facility for repair needs. K-20
- Identify or develop secure locations outside of residential neighborhoods where truckers that live in the community can park their truck, such as a Park & Ride. K-21
- Provide food options, fueling, truck repair and or convenience store on-site to minimize the need for trucks to traverse through residential neighborhoods. K-22
- Improve traffic flow by signal synchronization. K-23
- Use water sweepers that comply with SCAQMD Rules 1186 and 1186.1. K-24

Health Risk Assessment Modeling

2. AQMD staff noted several items that should be corrected in the Health Risk Assessment modeling prior to certifying the EIR. These include: K-25
   - The Traffic chapter of the Draft EIR presents an estimate of the expected trip rate for the project. For the high cube warehouses, an overall trip rate of 1.44 trips/thousand square feet (tsf) was used based on average rates from the ITE 8th Edition manual. The high-cube warehouse truck trip fraction in the Draft EIR is 54% of all of these trips based on the Fontana Truck Trip study. The final truck trip rate is therefore 0.78 trips/tsf. This is lower than the recommended truck trip rate from CalEEMod guidance of 1.04 trips/tsf based on the 95th percentile of all high-cube warehouses. K-26

K-14: Project Requirements PR 4.2-7 and PR 4.2-8 address the Project's requirements to comply with California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025 "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles" and Title 13, Division 3, Chapter 10, Article 1, Section 2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling." For these reasons and those discussed in Response K-9, above, there is no mechanism by which the City of Moreno Valley can feasibly or legally enforce the use of alternative fueled vehicles by the Project's vehicle fleet.

K-15: CEQA Guidelines Section 15126.4(a) requires that mitigation measures be feasible, have an essential nexus and proportionality to the impact, and are not required for effects which are not found to be significant. Whether or when a zero/near zero truck corridor will be established along SR-60 is highly uncertain. Electric heavy duty trucks do not exist, and the percentage of natural gas powered heavy duty trucks expected to use this facility is near zero. Thus, installing such facilities is unlikely to avoid or substantially lessen any of the Project's significant effects. Mitigation Measure MM 4.6-9 requires the placement and operation of two electric vehicle charging stations on Parcel 1. Additionally, Mitigation Measure MM-6-5 lists the installation of electrical hookups at loading dock areas as one of the ways the Project can achieve the requirement in MM 4.6-9 to achieve an 8% energy efficiency beyond the 2008 California Building Code Title 24 requirements.

K-16: There is no mechanism by which the City of Moreno Valley can feasibly or legally require that private enterprises apply for and use grant funds. Whether such a measure would avoid or substantially lessen the Project's environmental impacts is highly speculative. The city can, however,

Comment Letters

Responses

ensure that general information about grant program availability is disclosed to tenants as part of lease agreements. Mitigation Measure MM 4.2-7 is added to the Final EIR, as follows.

MM 4.2-7: Prior to the issuance of occupancy permits, the Project's property owner shall provide documentation to the Planning Division verifying that a provision is included in the building's lease agreement that informs tenants using a vehicle fleet older than 2007 about the availability of grant funding from available funding sources for truck retrofit and replacement.

K-17: Operational emissions of VOCs and NOx are predominantly from off-site mobile source emissions that are beyond the control of the Project Applicant, future Project tenants, and the City of Moreno Valley. The on-site, area sources of operational air pollution are well below the significance thresholds. Thus, controlling emissions from on-site sources such as forklifts will not avoid or substantially lessen the project's operational VOC and NOx emissions. There is no mechanism by which the City of Moreno Valley can feasibly or legally require private enterprises to use specific fuel types for logistics equipment as part of their operation. The city can, however, ensure that general information about alternatively fueled cargo equipment is disclosed to tenants as part of lease agreements. Mitigation Measure MM 4.2-8 is added to the Final EIR, as follows.

MM 4.2-8: Prior to the issuance of occupancy permits, the Project's property owner shall provide documentation to the Planning Division verifying that a provision is included in the building's lease agreement that informs tenants about the availability of alternatively fueled cargo handling equipment.

K-18: Operational emissions of VOCs and NOx are predominantly from off-site mobile sources that are beyond the control of the Project Applicant, future Project tenants, and the City of Moreno Valley. The on-site, area

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Comment Letters

Responses

sources of air pollution are well below the significance thresholds. Thus, directing on-site truck traffic away from property lines closest to residential areas will not avoid or substantially lessen the Project's operational VOC and NOx emissions. Nevertheless, the Project is designed such that truck traffic within the facility would be sufficiently separated from adjacent sensitive receptors. The relationship of the Project site to nearby residential uses located to the northeast is depicted on Draft EIR Figure 4.9-1. As disclosed in Draft EIR Section 4.9, "Land Use and Planning," the features proposed by the Project closest to the residential area consists of a parking lot for passenger cars, the primary entry and office portion of the building on Parcel 1, and landscaping.

K-19: Restriction of overnight parking in residential areas will not avoid or substantially lessen the Project's operational VOC and NOx emissions. Thus, this proposed mitigation measure would not be effective. Moreover, City of Moreno Valley Municipal Code Section 12.38.020B states that it is unlawful to park a commercial vehicle on any highway, street, road, alley, or private property within any residential district. The city has several designated overnight parking locations for commercial vehicles. A map of these locations is available on the city's website at http://www.moreno valley.ca.us/community/roadwork.shtml. The Project is evaluated in the Draft EIR as a 24-hour operation. The City of Moreno Valley neither requires nor restricts overnight parking on the Project site. Overnight parking on the site would be at the discretion of the property owner.

K-20: Refer to Response K-22.

K-21: Refer to Response K-19. Additionally, the truckers travelling to and from the facility will depend on the drivers and/or freight companies employed by the facility user, and may not include truckers living in the community who would otherwise park their trucks overnight in the community. Moreover, providing overnight truck parking for truckers who live in the community would not avoid or substantially lessen the Project's VOC and NOx emissions, and thus, this suggestion is not an effective mitigation measure.

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Responses

K-22: The predominant source of VOC and NOx emissions estimated for the Project's operations is from off-site mobile source trips to and from the facility. Trucks are expected to enter and exit the facility to make deliveries and/or pickups of goods at the facility, and are not expected to make extra trips from the facility for food, fueling, maintenance, or other needs. Based on the Project's location in relation to local commercial uses, trucks would naturally be expected to use main thoroughfares to travel between the facility and commercial businesses, and will not need to traverse through residential neighborhoods. Thus, this proposed measure would not avoid or substantially lessen the Project's operational VOC or NOx emissions.

K-23: The City of Moreno Valley has an on-going program to optimize traffic signal timings and has initiated the ITS Master Plan to implement traffic signal synchronization.

K-24: Operational emissions of VOCs and NOx are predominantly from off-site mobile sources that are beyond the control of the Project Applicant, future Project tenants, and the City of Moreno Valley. The on-site, area sources of air pollution are well below the significance thresholds. Thus this proposed measure would not avoid or substantially lessen the project operational VOC and NOx emissions. Nevertheless, Project Requirement PR 4.2-6 states that the Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1186.1, "Less-Polluting Street Sweepers."

K-25: Refer to Responses K-26 through K-34.

K-26: Because the CalEEMod guidance uses a trip rate based on the 95th percentile of all high-cube warehouses, it advocates use of a daily trip generation rate that is greater than 95 percent of the observed trip generation rates, and thus, significantly overestimates trip rates. The Draft EIR assumed that the Project would attract a total of 1,267 daily truck trips, the calculation of which was derived from trip generation rates specified in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 8th Edition, 2008. Use of the ITE rates are standard industry practice for the calculation of projected traffic volumes in traffic studies supporting CEQA documents

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Comment Letters

Responses

throughout the State of California.

Additionally, it is important to note that six (6) of the seven (7) trip generation studies included in the SCAQMD meta-analysis were also included as part of the dataset for estimating the daily and peak hour trip generation rates for ITE Land Use "152 (high-cube warehouse)" in ITE's 8th Edition of the Trip Generation manual. In addition, ITE also includes data from three (3) additional studies performed in Livermore, California, Manalapan, New Jersey and Tampa, Florida for the purposes of estimating peak hour trip rates, which further expands the number of buildings included in the sample.

Based on review of aerial imagery and oblique photography, the CalEEMod Guidance Document asserts that due to the presence of rail spurs at some survey locations or potential for partial building vacancies at others, the number of daily vehicle trips for high cube warehouses provided in ITE's Trip Generation manual, 8th Edition (2008) may be understated. However, the CalEEMod Guidance Document goes on to acknowledge that a lack of adequate business histories or historical photographic coverage make it difficult to state with confidence whether there is significant correlation between these site specific observations and the number of daily trips per site. As such, the Guidance Document conservatively recommends using a daily trip generation rate based on the 95th percentile of trip generation rate observations. In other words, it advocates use of a daily trip generation rate that is greater than 95 percent of the observed trip generation rates. This approach results in an extremely conservative trip rate, and is not in conformance with standard traffic engineering trip generation estimating methodology as described in ITE's Trip Generation Handbook, 2nd Edition (June 2004). In fact, the use of such a conservative trip rate would not only tend to overstate vehicle trips on a per site basis, but could lead to a significant overestimation of vehicle trips on a cumulative level. It appears that the Guidance Document recognized this issue, which is likely why it acknowledges that when evaluating a large number of sites (>10), the average rate of 1.44 trips per TSF from the ITE 8th Edition Trip Generation manual is recommended.

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Responses

In conclusion, the Guidance Document acknowledges that a lack of historical photographic coverage and/or business history make it difficult to discern the degree of correlation between the variation in site specific observations and the conclusion, that the ITE rates may be understated. In addition, the use of a 95th percentile trip generation rate is not standard traffic engineering practice, as this approach will tend to overstate site specific vehicle trips estimates. Therefore, the City of Moreno Valley concludes that the trip generation rates for high cube warehouse use (Land Use 152) as published in the 8th Edition of ITE's Trip Generation manual, and currently widely accepted throughout Riverside and San Bernardino Counties, are the most appropriate trip rates to be utilized to calculate vehicle trips for the proposed Project, and that no adjustments are needed to the modeling that supports the Draft EIR.

CEQA does not require that development projects be limited to the level of daily operational activity assumed in the environmental analysis. Moreover, to impose a daily limitation on the number of truck trips, as the SCQAMD suggests, would limit the economic activity at the facility, and could result in disruption in business operations leading to undesirabl and unintended environmental consequences (e.g., queing or stacking c trucks outside the facility until midnight).

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Comment Letters

Mr. Mark Gross, AICP
Senior Planner

June 14, 2012

Because tenants have not been identified for this project (page 3-20 of the Draft EIR), AQMD staff recommends that the CalEEMod default truck trip rate be used for the air quality analysis. Because AQMD recommended air quality thresholds are designed to determine peak impacts and to be health protective, the more conservative rate should be used to determine potential impacts without more project-specific information. Alternatively, the Draft EIR could contain a condition or mitigation measure that limits the number of trucks that could serve this facility to those identified in the air quality and health risk assessment analysis.

- The residential receptor reported with the highest risk does not represent the receptor with the highest modeled concentration of Diesel Particulate Matter (DPM). Based on the modeling files submitted to AQMD staff, the receptors with the highest risk are located east of the project site along Indian Street. The risks to the receptors with the highest concentration of DPM should be used to make the significance determination in the EIR. K-27
- Because this facility could serve more than 1,200 trucks each day based on the estimates presented in the Draft EIR, AQMD staff recommends that the entire truck route from the facility to the closest freeway entrances be modeled. For example, the currently modeled sources do not extend very far beyond Gentian Avenue along Heacock Street. As aerial photos depict many homes located adjacent to Heacock Street on this route north of Gentian Avenue, the impacts to these receptors should be included in the HRA. K-28
- Based on Table 2-2 of the HRA, approximately 63% of all trucks serving the largest warehouse will use the western side of the building. However Exhibit 4-2 from the Traffic Impact Analysis shows that the number of trucks on the east and west side of the facility are expected to be equal. Because the highest impacts from this project are currently modeled to the east of the project site, this assumption should be revised in the HRA, or a condition should be placed on the project that limits the number of trucks that can use the eastern side of the site. K-29
- The line sources used to represent onsite truck travel and idling typically use half of the entire line source length to determine total Vehicle Miles Travelled (VMT). This method was presumably used because not all trucks are expected to travel the length of the facility to reach the farthest dock door. On average, trucks would only travel half the distance. However, this assumption should only apply to the length of the line source that spans the dock doors on that side of the building. The model uses individual line sources that include travel outside of dock areas. The VMT is therefore incorrectly reduced by 50% along these portions of truck travel. The source emission calculations should be modified and the model re-run to determine the impacts using the correct onsite VMT. K-30
- Idling emissions are spread out throughout the length of line sources. As indicated in the comment above, the line sources include areas outside of dock areas, such as Krameria Street. Unless idling is expected along the entire K-31

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K-27: Refer to Draft EIR Figure 2-1, Surrounding Land Uses and Development. As shown, the nearest sensitive receptor (residence) is located approximately 115 feet northeast of the Project site across Iris Avenue as indicated in the HRA. There are no sensitive land uses that exist or that are planned east of the site between the project site and Indian Street, as this is property is zoned as industrial land use. There are residential units located to the east of Indian Street and these have been included in the HRA modeling; however, the impacts to these residences is less than the reported impact for the nearest residence located approximately 115 feet northeast of the Project site across Iris Avenue.

K-28: The HRA modeling includes off-site truck travel extending over 900 meters (<0.5 mile) to the north and over 500 meters (<0.31 mile) to the south. The majority of diesel particulate matter (DPM) source impacts would occur on-site; therefore, the Draft EIR discloses the maximum impact, as required by CEQA. Modeling impacts further from the maximum source would not change any of the significance conclusions disclosed in the EIR. It has long been recognized that DPM impacts decrease as a function of distance from the source (see Air Quality Land Use Handbook: A Community Health Perspective, CARB 2005). For this reason, any impacts that would occur beyond these modeled concentrations would be less than what is already included in the analysis. For this reason, no additional analysis is warranted.

K-29: The HRA modeling has been revised accordingly and an equal

distribution of trucks on the east and west side of the largest building is included. This revision does not change any of the significance conclusions disclosed in the Draft EIR.

K-30: The HRA modeling has been revised, the analysis now includes the travel length in its entirety along all the modeled segments. This revision does not change any of the significance conclusions disclosed in the Draft EIR.

K-31: No idling was included on off-site roadways because all idling will occur on-site. Idling is shown as a line source because idling could in fact occur over the entire length because, as requested by the SCAQMD, 15 minutes of idling was included to account for check in at the gate, loading/unloading at the loading dock, and check out at the gate.

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Senior Planner

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length of every line source, the idling emissions should be focused only in sources that are expected to include idling during project operations.

- The project description includes a new road located east of the largest high-cube warehouse called Cosmos Street. The HRA model does not include any trucking along this street and keeps all trucking onsite. Because this street is located closer to the highest impacted residences, truck travel along its length

K-32

- Some typographical corrections should be made in the HRA. Footnote A in Table 2-2 states that the VMT column represents idling hours for some sources. After reviewing the electronic versions of the spreadsheet used to create the table, this statement appears incorrect. The correct description should be put into the Final EIR. In addition, Appendix B of the HRA shows emission rates for trucks travelling 0, 10, and 25 mph. The EMFAC run included to support these rates shows that 5 mph was used instead of 10 mph. This discrepancy should be corrected in the Final EIR and the model should include the expected onsite travel speed.

K-33

- The model used emission rates from EMFAC 2007, however the state Air Resources Board has recently released an update to EMFAC. EMFAC 2011 takes into account recent rulemaking activity related to diesel trucks and includes lower emission rates. The lead agency should consider using these revised emission estimates in the Final EIR.

K-34

Cumulative Impacts

3. The Cumulative Impacts Section should be revised in the Final EIR to include the projects listed below as well as any other foreseeable projects if those projects include vehicle traffic, especially diesel fueled trucks, that would utilize the same truck routes as the proposed project. The cumulative traffic on local roads from these or other planned goods movement facilities in the immediate vicinity may contribute to a localized air quality health risk from diesel particulate matter that should be discussed in the Final EIR.

K-35

Name	Size (MSF)	EIR Date
VIP Moreno Valley Project	1.6	March 2012 Draft
Starcrest Distribution Center	0.5	February 2012 Final
Rados Distribution Center	1.2	July 2011 Final
Perris Ridge Commerce Center II	2.0	August 2009 Final
Markham Business Center	1.75	June 2009 Final
Oakmont II	1.6	June 2009 Draft
Rider Distribution Center	0.6	April 2009 Final
Oleander Industrial Park	1.2	September 2008 Final

MSF – Million Square Feet

Construction Mitigation Measures

K-32: The HRA modeling has been revised accordingly and trips are included along Cosmos Street. This revision does not change any of the significance conclusions disclosed in the Draft EIR.

K-33: Comment noted, the typographical errors are corrected for footnote A and the travel speeds applicable to the modeling. These revisions do not change any of the significance conclusions disclosed in the Draft EIR.

K-34: The HRA modeling has been revised accordingly and now makes use of the EMFAC 2011 model as requested by the SCAQMD. The most important improvement in the EMFAC 2011 is the integration of new data and methods to estimate emissions from diesel trucks and buses. EMFAC 2011 uses the same diesel truck and bus vehicle populations, miles traveled, and other emissions-related factors developed for the truck and bus rule approved by the Air Resources Board in 2010. The model includes the emissions benefits of the truck and bus rule and the previously adopted rules for other on-road diesel equipment. As a result, the level of impact calculated for the Project is reduced and remains a less than significant impact as disclosed in the Draft EIR. These revisions do not change any of the significance conclusions disclosed in the Draft EIR. Subsection 4.2 "Air Quality" is revised in the Final EIR as follows:

At the point of maximum impact, the maximum increase in cancer risk is estimated to be ~~4.59~~ 3.70 in one million for nearby residents (based on a 70 year exposure rate), ~~4.62~~ 3.23 in one million for employees at the Project site (based on a 40 year exposure rate), and ~~1.14~~ 0.67 in one million for nearby school children (based on a nine (9) year exposure rate).

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K-35: The air quality analysis relies on the Project's traffic study, for which a specific cumulative study area was established. The cumulative study area generally includes approved and pending development projects within a three (3)-mile radius of the Project site, as well as several large, traffic-intensive projects falling just beyond a three (3)-mile radius of the Project site. A total of 52 projects were considered, including seven (7) of the projects listed in this comment. The projects listed by the SCAQMD are identified as follows in Table 4-4 of the Project's Traffic Impact Analysis included as Technical Appendix K to the Draft EIR:

- VIP Moreno Valley Project is referred to as "Vogel" (Project #13) in Table 4-4;
- Starcrest Distribution Center is referred to as "Starcrest" (Project #51) in Table 4-4;
- Perris Ridge Commerce Center II is referred to as "Ridge II" (Project #46) in Table 4-4;
- Markham Business Center is referred to as "IDI" (Project #46) in Table 4-4;
- Oakmont II is referred to as "Oakmont II" (Project #42) in Table 4-4;
- Rider Distribution Center is referred to as "Alere" (Project #50) in Table 4-4; and
- Oleander Industrial Park is referred to as "Oleander Business Park" (Project #32) in Table 4-4.

Although Table 4-4 of the Project's Traffic Impact Analysis does not list the Rados Distribution Center, the Oakmont II project listed in Table 4-4 accounts for the environmental effects of the Rados project. Table 4-4 assumes that the Oakmont II project would be developed with 3,008,000 square feet (s.f.) of warehouse distribution uses; however, as approved by the Perris City Council on December 8, 2009, the Oakmont II project

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is entitled for only 1,608,322 s.f. of warehouse distribution uses. The Rados Distribution Center projected, located just south of the Oakmont II project, is entitled for the development of 1,191,080 s.f. of warehouse distribution uses. Together, the entitled Oakmont II project and the entitled Rados project have less building s.f. than assumed under the Oakmont II entry in Table 4.4. Thus, the resulting environmental effects (including air pollutant emissions) are conservatively accounted for in the cumulative impact analysis presented in the Draft EIR. No revisions to the Draft EIR are warranted, because a thorough cumulative impact evaluation was conducted and disclosed.

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Senior Planner

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4. Starting on page 4.2-22 and throughout the Draft EIR (pages 4.2-24 and 4.2-25), the lead agency included project requirements that were assumed to be implemented throughout the analysis of air quality impacts. These project requirements and/or conditions require compliance with various SCAQMD and California state rules and regulations to reduce air quality impacts from construction activities. For example, PR 4.2-2, "The Project is required to comply with the provisions of South Coast Air Quality Management District 403, 'Fugitive Dust.'" Rather than stating compliance in general with these and other rules, regulations, laws, etc., the AQMD staff recommends that specific measures, from Rule 403 for example, be stated as specific mitigation measures. They should also be incorporated into the project description, and (as noted by the lead agency on page 4.2-22) incorporated into project-specific impact calculations where applicable in the Final EIR (see also comment #4). — K-36

5. In the Draft EIR, the lead agency has determined that project regional and localized construction impacts exceed the SCAQMD recommended significance thresholds. The AQMD staff therefore recommends the following additional mitigation measures during the projected construction period in addition to the project requirements and mitigation measures proposed starting on page 4.2-23 (see comment #3) to further reduce NOx, PM10 and PM2.5 impacts, if applicable and feasible. — K-37

   Recommended change:

   MM 4.2-1 Prior to grading permit issuance, the City shall verify the following note is included on the grading plan:

   "~~During construction activity~~From project start to December 31, 2014, the contractor shall utilize California Air Resources Board (CARB) Tier III certified equipment or better for ~~the following pieces of equipment: Graders, Rubber Tired Dozers, and Scrapers~~all off-road diesel-powered construction equipment greater than 50 hp. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations."

   Recommended additions:

   - Limit the amounts of daily soil disturbance to the amounts analyzed in the Draft EIR. — K-38
   - Apply non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for ten days or more). — K-39
   - All trucks hauling dirt, sand, soil, or other loose materials are to be covered. — K-40
   - Sweep streets at the end of the day if visible soil is carried onto adjacent public paved roads (recommend water sweepers with reclaimed water). — K-41

Responses

K-36: Mandatory compliance with applicable regulatory standards and laws is used as part of the basis for determining whether or not the Project will have a significant environmental impact, and therefore, whether the Project necessitates the consideration of feasible mitigation measures. Project Requirements are not Mitigation Measures and there is no reason to repeat them as such. Regardless, specific measures recommended by the SCAQMD for the proposed Project related to Rule 403 compliance area added as Mitigation Measure MM 4.2-9 in the Final EIR. Additionally, a statement about the purpose of Rule 403 is added to Project Requirement PR 4.2-2 in the Final EIR. All Project Requirements listed in the Draft EIR are included in the Project's Mitigation Monitoring and Reporting Program (MMRP), as summarized in Draft EIR Table ES-1. In regards to the Draft EIR's Project Description, Draft EIR Section 3.3 acknowledges Project Requirements as an inherent component of the Project and states:

> *Conditions of Approval and other applicable regulations, codes, and requirements that the Project is required to comply with and that result in the reduction or avoidance of an environmental impact are specified in each subsection of Chapter 4.0, Environmental Analysis. These are referred to as "Project Requirements" throughout this EIR.*

K-37: The first and third sentences of the quoted note specified in Mitigation Measure MM 4.2-1 are revised in the Final EIR as suggested with some modification. The Project's construction operation is required to comply with all applicable CARB regulations in effect at the time of construction; therefore, the suggestions to outfit all construction equipment with CARB-certified BACT devices is unwarranted.

K-38: Mitigation Measure MM 4.2-1 is expanded in the Final EIR to require a limitation on mass grading to 6.5 acres per day.

K-39: Refer to Response K-36 and Mitigation Measure 4.2-9 added to the Final EIR.

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K-40: Refer to Response K-36 and Mitigation Measure 4.2-9 added to the Final EIR.

K-41: Refer to Response K-36 and Mitigation Measure 4.2-9 added to the Final EIR.

Comment Letters

Mr. Mark Gross, AICP
Senior Planner

June 14, 2012

- Prohibit truck idling in excess of five minutes; K-42
- Provide temporary traffic controls such as a flag person, during all phases of construction to maintain smooth traffic flow. K-43
- Schedule construction activities that affect traffic flow on the arterial system to off-peak hour to the extent practicable; K-44
- Reroute construction trucks away from congested streets or sensitive receptor areas; and K-45
- Appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM10 generation. K-46
- Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph; K-47

Further, other lead agencies in the region including LA County Metro, the Port of Los Angeles, and the Port of Long Beach have also enacted the following mitigation measures. AQMD staff recommends the following measures to further reduce air quality impacts from construction equipment exhaust: K-48

- Post-January 1, 2015: All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. K-49
- A copy of each unit's certified tier specification, BACT documentation, and CARB or AQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment. K-50

For additional measures to reduce off-road construction equipment, refer to the mitigation measure tables located at the following website: K-51
www.aqmd.gov/ceqa/handbook/mitigation/MM_intro.html .

Responses

K-42: Mitigation Measure MM 4.2-1 is expanded in the Final EIR to require a five minute limitation on construction vehicle idling.

K-43: Two public roadways abut the Project site: Iris Avenue to the north and Heacock Street to the west. As specified in Mitigation Measure MM 4.10-2, the Project Applicant is required to prepare a construction haul route exhibit for review and approval by the city's Building and Safety Division, which explicitly prohibits the use of Iris Avenue. Heacock Street is a designated truck route. The Project will implement temporary traffic control during construction as required by the California Manual on Uniform Traffic Control Devices.

K-44: Mitigation Measure MM 4.2-1 is expanded in the Final EIR to encourage construction traffic to occur during non-peak hours.

K-45: Refer to Response K-43.

K-46: Mitigation Measure 4.2-10 is added in the Final EIR to require the posting of signs with contact information for an individual who can resolve dust complaints.

K-47: Refer to Response K-36 and Mitigation Measure 4.2-9 added to the Final EIR.

K-48: Regardless of which mitigation measures may or may not be imposed by other CEQA lead agency jurisdictions, pursuant to CEQA Guidelines Section 15126.4(a)(2), "[m]itigation measures must be fully enforceable through permit conditions, agreements, or other legally binding instruments." Additionally, CEQA Guidelines Section 15126.4(a) requires that mitigation measures must be feasible, have an essential nexus and proportionality to the impact, and are not required for effects which are not found to be significant. Refer to Responses K-49 and K-50.

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K-49: CARB has recently submitted a proposal to the United States Environmental Protection Agency (EPA) to prohibit the use of Tier 1 off-road diesel-powered construction equipment by 2013 for small construction fleets and by 2016 for large construction fleets, and to prohibit the use of Tier 2 off-road diesel powered construction equipment by 2018 for small construction fleets and 2023 for large construction fleets[2]. These proposals are under consideration by the EPA and have not been formally adopted by the CARB. At this time, the CARB has not established a formal deadline requiring off-road diesel-powered construction equipment to comply with Tier 3 or Tier 4 emission standards[3]. The use of off-road diesel-powered construction equipment meeting the Tier 3 emission standards or equivalent, as required by revised Mitigation Measure MM 4.2-1 in the Final EIR, would more than exceed CARB's minimum emissions reduction requirements, and would further reduce air quality impacts from construction equipment exhaust per the intent of this comment. The suggestion to utilize off-road diesel-powered construction equipment that meets Tier 4 emissions standards after January 1, 2015 is unwarranted; and, because construction equipment meeting Tier 4 standards is not required by CARB and is not standard practice, the use of such equipment would be impractical and infeasible. Also refer to Response K-37.

K-50: Refer to Responses K-37 and K-49.

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[2]Gia Moreno, California Air Resources Board staff, personal communication with Haseeb Qureshi, Urban Crossroads, September 24, 2012.
[3]Ibid.

Comment Letters

Responses

Gerald M. Budlong
24821 Metric Drive
Moreno Valley, CA 92557
June 12, 2012

RECEIVED
JUN 13 2012
CITY OF MORENO VALLEY
Planning Division

Subject: Proposed March Business Center Project DEIR

Mark Gross, Senior Planner
Moreno Valley Planning Division
14177 Frederick Street, Moreno Valley City Hall
Moreno Valley, CA 92553

Dear Mr. Gross:

The proposed March Business Center project is consistent with the present specific plan as well as the superseded Oleander Specific Plan of the Moreno Valley General Plan and the zoning ordinance. The land has been designated as industrial in the specific plans and the zoning ordinance. My concerns with this environmental document is with groundwater levels, liquefaction and flooding. — L-1

The environmental cleanup program, called the Installation Restoration Program (IRP), at March Field, incorporating the former March AFB and present March ARB, has monitored the groundwater levels on and off base since the start of this program in the late 1980s. The groundwater levels have been rising an average of one to two feet annually. To date local groundwater levels are as high as 10 feet or less from the ground surface. Projects such as the new Metropolitan Water District of Southern California (MWD) water pipeline parallel to I-215 and near the March Field Museum has undergone high groundwater conditions which has prevented completion of approximately 400 linear yards of the project. A new bidding process inviting contractors with expertise in constructing large pipelines in locations containing high groundwater conditions was initiated by MWD. — L-2

In another instance, the Air Force is concerned about potential adverse impacts to March ARB buildings from liquefaction in the event of a future earthquake. My last example was brought up at the April 2012 March Field IRP Board meeting, that underground cement utility vaults at the former DHL airfreight building was experiencing flooding. I inquired whether the flooding was caused by high groundwater conditions. Staff promised they will make inquiries and report back at the October IRP meeting. — L-3

Has Eric Lehto, Air Force Reserve, 452 MSG/CEV, 610 Meyer Drive, Bldg. 2403, March ARB, CA 92518-2166, (951) 655-5060, been contacted confirming the groundwater levels at the March Business Center project site are at 50 foot depths? Several Air Force monitoring wells are located within the March Business Center project site. What are the groundwater levels of these Air Force monitoring wells per the Air Force groundwater records? If in the event the groundwater records record shallow on site groundwater levels, are the building foundations planned for the proposed project engineered to resist potential liquefaction events from major earthquakes? — L-4

The U.S. Army Corps of Engineers (COE) in the past has notified March ARB that the development of Moreno Valley within the drainage basin that drains into the Heacock Ditch Channel, exceeds flood flow design with potential flooding hazard to both the base and surrounding residential subdivisions and the industrial park. The junction of the Heacock Drainage Channel with the Perris Channel is a choke point where floodwater back up and potentially threatens both adjoining Federal and private property parallel to Heacock Street. Last year one storm had high flood levels which resulted in the flooding of Creekstone Drive and Heacock Street south to Iris Avenue and past the proposed project — L-5

L-1: The City of Moreno Valley acknowledges the commenter's concerns over groundwater levels, liquefaction, and flooding. Please refer to Responses L-2 through L-7, which are responsive to these concerns.

L-2: The average groundwater level at the Project site as documented by Eastern Municipal Water District (EMWD) is noted on Page 4.8-11 of the Draft EIR:

> *According to EMWD's West San Jacinto Groundwater Basin Management Plan 2009 Annual Report, groundwater elevations beneath the Project site occur at an elevation of approximately 1,460 feet AMSL, indicating that groundwater beneath the site occurs approximately 44 feet below the ground surface during the spring.*

The 2009 Annual Report for the San Jacinto Groundwater Basin Management Plan was the most recent information available from EMWD at the time the Draft EIR was prepared. Since that time, EMWD published the 2011 Annual Report for the West San Jacinto Groundwater Basin Management Plan (available on-line at http://www.emwd.org/index.aspx?page=283). Its Figure 6-7 (Groundwater Elevation Contours, Spring 2011), also shows estimated groundwater elevations at the Project site to be approximately 1,460 feet above mean sea level, or an average depth of 44 feet below the property's ground surface in the spring. Based on the topographic contour information for

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the MARB provided on Figure 6-7 of the EMWD 2011 Annual Report, groundwater levels beneath portions of the MARB do occur at depths as shallow as 10 feet (e.g., just easterly of the March Field Museum), as mentioned in this comment. Comments about the MWD pipeline project are beyond the scope of the proposed Project evaluated in the Draft EIR.

L-3: Concerns about potential impacts to buildings on the MARB property as a result of groundwater levels on that property are beyond the scope of the proposed Project evaluated in the Draft EIR.

L-4: In response to this comment, Mr. Eric Lehto was contacted to obtain groundwater monitoring well records for the four Air Force monitoring wells located on the Project site. According to the publication titled "March Air Reserve Base, California: Fourth Quarter 2011 Long-Term Groundwater Monitoring Informal Technical Information Report," the depth to groundwater at the on-site wells recorded by the Air Force on November 29, 2011, were 39.36 feet below the top of the well casing (BTOC), 30.64 feet BTOC, 28.48 BTOC, and 28.44 BTOC. This information demonstrates variable groundwater depths across the Project site, and more shallow than the estimated spring averages documented by EMWD. Liquefaction hazards are addressed in Draft EIR Section 4.5, "Geology and Soils." Refer to Draft EIR pp. 4.5-4, 4.5-8, 4.5-10, and 4.5-11. As concluded on Draft EIR Page 4.5-8:

> *Based on NorCal Engineering's review of the subsurface exploration data from the Project site, as well as a review of relevant literature, the liquefaction potential of the Project site is determined to be very low to low. In addition, the Project site is not identified within a City-designated liquefaction zone (City of Moreno Valley 2006b 5.6-5). As noted previously, the site would be designed in accordance with the latest applicable seismic safety guidelines, including the standard requirements of the CBSC and City of Moreno Valley Building Code, as well as the site-specific recommendations contained within the Project geotechnical report, which are anticipated to further reduce*

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the risk of seismic-related ground failure. As such, significant impacts associated with seismic-related ground failure and/or liquefaction hazards would not occur and mitigation would not be required.

There is no information in the city's administrative record for this Project or provided within this comment or the Air Force well monitoring records to indicate that the Project site would be subject to substantial hazards associated with liquefaction. As noted on Draft EIR Page 4.5-8, future buildings on the property would be required to adhere to the requirements of the CBSC, City of Moreno Valley Building Code, as well as the site-specific recommendations contained in the Project's geotechnical report and any other future geotechnical investigations that may be required (e.g., in association with future grading or building permits). Compliance with these standards would ensure that future buildings on the property would not be subject to significant hazards associated with liquefaction. Accordingly, no revisions to the Draft EIR are warranted pursuant to this comment.

L-5: Flood hazards are evaluated on p. 4.8-21 and 4.8-23 of the Draft EIR. Based on data available from the Federal Emergency Management Agency (FEMA), portions of the proposed Project site are located within FEMA Flood Zones AH and AO, indicating flood depths of up to 1 to 3 feet (usually areas of ponding or sheet flow on sloping terrain). The proposed Conceptual Grading Plan included as part of the Project's Tentative Parcel Map is designed such that all buildings within the FEMA mapped flood zones will be constructed at an elevation that is higher than the base flood elevation. As a result, none of the proposed structures associated with this Project would be subject to flood hazards. Although portions of the site could be subject to periodic flooding (e.g., within parking lots), such flood conditions would not significantly and adversely affect the proposed structures. As indicated on p. 4.8-21 of the Draft EIR, the Project's Conceptual Grading Plan also is designed such that areas proposed for parking would occur at an elevation that is lower than the property's existing ground surface elevation, thereby accommodating flood flows that would be displaced by the elevated

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structures proposed on the property. The city acknowledges that the local area is subject to flood hazards, including the flood conditions described by this comment; however, such flood conditions do not represent a significant environmental effect under CEQA because the proposed Project is designed to address these potential flood conditions and because the Project would not increase the flood potential for off-site properties.

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site. I believe Moreno Valley Public Works Department closed the roads for approximately three to four days from this flood event. I have photographs of the aftereffects of this flood event which are available upon request.

During the preparation of the subject DEIR why wasn't the COE and March ARB contacted for their flooding studies along Heacock Drainage Channel? Was the Moreno Valley Public Works Department contacted about their records concerning flooding of the Heacock Drainage Channel upon Heacock Street and other impacted streets? — L-6

Why does the project DEIR state the Heacock Drainage Channel to be outside the scope of the project area? As a result, the DEIR does not address the potential flood flows from a flooding Heacock Drainage Channel. Therefore any flooding impacts upon adjoining residential property and a developed industrial project are not evaluated for impacts in the DEIR. Would you please explain the reason(s) why the Heacock Drainage Channel and associated potential impacts to the project site and residential housing located north of the site are not addressed in this DEIR? — L-7

Sincerely,

Gerald M. Budlong

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L-6: The Draft EIR relies on information available from FEMA, which is the governmental agency responsible for mapping flood hazards within the local area. The City of Moreno Valley is not aware of any information available from the Army Corps of Engineers or the MARB that contradicts the information available from FEMA. The proposed Project is designed to address the flood hazards identified by FEMA for the Project area, and the proposed Project would not subject any structures on the property to flood hazards nor would it impede or redirect flows in a manner that would cause or exacerbate off-site flood hazards (as noted on Draft EIR p. 4.8-21). The City of Moreno Valley Public Works Department was involved in the review of the proposed Project's applications and did not identify any concerns associated with flood hazards affecting the site. There is no information provided in this comment or within the city's administrative record for this project to indicate that the flood potential for the property is any greater than what is already identified and disclosed in the Draft EIR. No revision to the Draft EIR is warranted pursuant to this comment.

L-7: The commenter is incorrect in asserting that the DEIR "does not address the potential flood flows from a flooding Heacock Drainage Channel." The Heacock Drainage Channel, which is referred to as the Perris Valley Storm Drain Channel in the Draft EIR, is not a part of the proposed Project site. The Project does not involve improvements within the channel with exception of the construction of two drainage outfalls, the physical impacts of which were evaluated throughout the Draft EIR. Flood hazards associated with the Perris Valley Storm Drain Channel were evaluated as part of the Draft EIR, specifically in the analysis of Threshold 8 on Draft EIR p.4.8-21. As discussed in that analysis, the Project site is subject to flood depths of 1 to 3 feet. However, the proposed Project is designed such that peak flood events would not impact proposed structures on the property. The Project's

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design also accommodates all flood flows that would occur under existing conditions within the proposed parking areas, thereby ensuring that no increase of flood hazards to off-site properties (including nearby residential properties) would occur. As concluded on Draft EIR p. 4.8-21: "Although the Project would result in the redirection of flood flows on site (i.e., away from proposed structures), this proposed redirection of flows would not result in a significant adverse impact to the environment." Accordingly, the Draft EIR does include an analysis of flooding impacts upon adjoining properties, and concludes that flooding impacts would be less than significant.

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F.3 NO RECIRCULATION OF THE DRAFT ENVIRONMENTAL IMPACT REPORT REQUIRED

CEQA Guidelines Section 15088.5 describes the conditions under which a Draft EIR that was circulated for public review is required to be re-circulated for additional public review and comment. CEQA Guidelines Section 15088.5 states that new information added to a Draft EIR is not significant unless the Draft EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. "Significant new information" requiring recirculation includes, for example, a disclosure showing that:

a. A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.

b. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.

c. A feasible project alternative or mitigation measure considerably different from the others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.

d. The Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

As summarized in Section F.2.2, *Revisions to the Proposed Project in Response to Public Comments*, and based on the comment letters and responses thereto presented in Section F.2.4, *Responses to Comments* , there were no public comments or changes to the text or analysis contained in the Draft EIR that resulted in the identification of any new significant environmental effect or a substantial increase in the severity of an environmental effects that were disclosed in the Draft EIR. Based on comments received on the Draft EIR, minor revisions to the Project's mitigation requirements were incorporated (as described above in Table F-2, *Errata Table of Corrections and Additions*), and all suggested mitigation measures that would clearly lessen the significant environmental impacts of the Project were incorporated into the Final EIR. Additionally, the Draft EIR was fundamentally and basically adequate, and all conclusions within the Draft EIR were supported by evidence provided within the Draft EIR or the administrative record for the proposed Project. Furthermore, public comment letters on the Draft EIR did not identify any alternatives to the proposed Project considerably different from those analyzed in the Draft EIR that would substantially lessen the significant environmental impacts of the proposed Project

Based on the foregoing, additional recirculation of the Draft EIR is not warranted according to the guidance set forth in Section 15088.5 of the State CEQA Guidelines.

S.0 EXECUTIVE SUMMARY

S.1 INTRODUCTION

The California Environmental Quality Act (CEQA), Public Resources Code §21000, et seq. requires that before a public agency makes a decision to approve a project that could have one or more adverse effects on the physical environment, the agency must inform itself about the project's potential environmental impacts, give the public an opportunity to comment on the environmental issues, and take feasible measures to avoid or reduce potential harm to the physical environment.

This Environmental Impact Report (EIR), having California State Clearinghouse No. 2011061033, has been prepared in accordance with CEQA Guidelines Article 9, §15120 to §15132, to evaluate the potential environmental impacts associated with planning, constructing, and operating the proposed March Business Center Project (herein, the Project). This EIR does not recommend either approval or denial of the proposed Project; rather, it is a source of impartial information regarding potential impacts that the Project may cause to the physical environment. The Draft EIR will be available for public review for a period of 45 days. After consideration of public comment, the City of Moreno Valley will consider certifying the Final EIR and adopting required findings in conjunction with Project approval. In the case that there are any adverse environmental impacts that cannot be fully mitigated, the City of Moreno Valley must adopt a Statement of Overriding Considerations, stating why the Project is being approved despite its unavoidable impacts.

This Executive Summary has been prepared in accordance with CEQA Guidelines §15123. This EIR includes a description of the proposed Project and evaluates the physical environmental impacts that could result from planning, constructing, and operating the Project. The scope of this EIR has been determined to cover 12 subject areas through the completion of an Initial Study prepared by the City of Moreno Valley pursuant to CEQA Guidelines §15063, and in consideration of public comment received by the City in response to this EIR's Notice of Preparation (NOP). The Initial Study, NOP, and written comments received by the City in response to the NOP, are attached to this EIR *Technical Appendix A*. As determined by the Initial Study and in consideration of public comment on the NOP, the 12 environmental subject areas that could be reasonably and significantly affected by the Project are analyzed herein, including:

1. Aesthetics
2. Air Quality
3. Biological Resources
4. Cultural Resources
5. Geology & Soils
6. Greenhouse Gas Emissions
7. Hazards and Hazardous Materials
8. Hydrology and Water Quality
9. Land Use and Planning
10. Noise
11. Transportation/Traffic
12. Utilities and Service Systems

Refer to Section 4.0, Environmental Analysis, for a full account and analysis of the subject matters listed above. As mentioned, the scope of this EIR includes these 12 subject areas as determined through the completion of an Initial Study pursuant to CEQA Guidelines §15063, and in consideration of public comment to this EIR's NOP. Subject areas for which the Initial Study concluded that impacts would be clearly less than significant and that do not warrant further analysis in this EIR are addressed in Subsection 5.4, Effects Found Not to Be Significant as Part of the Initial Study Process. For each of the 12 subject areas analyzed in Section 4.0, this EIR describes: 1) the physical conditions that existed at the approximate time this EIR's NOP was filed with the California

State Clearinghouse (June 2011); 2) discloses the type and magnitude of potential environmental impacts resulting from Project planning, construction, and operation; and 3) if warranted, recommends feasible mitigation measures that would reduce or avoid any significant adverse environmental impacts that the Project may cause. A summary of the Project's significant environmental impacts and the mitigation measures imposed by the City of Moreno Valley to lessen or avoid those impacts is included in this Executive Summary as Table S-2, *Mitigation Monitoring and Reporting Program*.

This EIR also discusses alternatives to the proposed Project. Alternatives are studied that would attain most of the Project objectives while avoiding or substantially lessening the proposed Project's significant environmental effects. A full discussion of Project alternatives is found in EIR Section 6.0, Alternatives.

S.2 PROJECT OVERVIEW

S.2.1 LOCATION AND REGIONAL SETTING

The Project site consists of 75.05 acres in the southern portion of the City of Moreno Valley, Riverside County, California (see Figure 3-1, *Regional Map*). From a regional perspective, the Project site is located to the north of the City of Perris, to the southeast of the City of Riverside, and to the south, east, and west of unincorporated areas in Riverside County. Regional access to the site is provided via I-215, which is located approximately 1.4 miles to the west of the site, and SR-60, which is located approximately 3.6 miles to the north of the site. Refer to Subsection 2.1 for more information about the Project's regional setting.

At the local scale, the Project site is located immediately south of Iris Avenue, east of Heacock Street, and about 1,300 feet west of Indian Avenue, as illustrated on Figure 3-2, Vicinity Map, and Figure 3-3, USGS Topographic Map. As shown on these exhibits, a majority of the site is located immediately north of the Perris Valley Channel, with the exception of approximately 1.84 acres located southwest of the Channel. Refer to Subsection 2.2 for more information about the Project's local setting.

S.2.2 PROJECT OBJECTIVES

The primary objective of the proposed Project is to develop an industrial business center on the Project site in conformance with the land use designations applied to the property by City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208), as well as comply to the greatest feasible extent with other applicable City of Moreno Valley standards, codes, and policies. The following is a list of specific objectives sought by the proposed Project.

A. To develop an industrial business center in conformance with the land use designations applied to the property by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208).

B. To develop a business center that can accommodate light industrial and warehouse distribution tenants within close proximity to regional transportation routes.

C. To develop a business center that is financially feasible to construct and operate.

D. To make efficient use of a property by achieving a minimum Project-wide floor area ratio (FAR) of 0.50.

E. To attract new businesses and jobs to the City of Moreno Valley, thereby providing a more equal jobs/housing balance both in the City and in Riverside County and reducing the need for members of the existing local workforce to commute outside the area for employment.

F. To modify the planned alignment of Krameria Avenue to enable efficient development of the Project site and improve circulation and public safety within the area of the Moreno Valley Industrial Area Plan.

G. To develop a business center with an architectural design and operational characteristics that are complementary with existing and planned development in the immediate vicinity.

H. To construct a business center that incorporates energy efficiency and low water use principles in order to increase environmental quality during construction and operation.

S.2.3 PROJECT DESCRIPTION SUMMARY

The Project consists of a proposal to develop a 75.05-acre property with business center land uses. The principal discretionary actions required of the City of Moreno Valley to implement the proposed Project include the adoption of a General Plan Amendment (PA11-0001) and Specific Plan Amendment (P11-004), approval of Tentative Parcel Map No. 35879 (PA11-0007), a Master Plot Plan (PA11-0002) and four (4) individual Building Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006), and certification of this EIR (P11-005). Additional discretionary and administrative actions that would be necessary to implement the proposed Project are listed in Table 3-4, *Matrix of Project Approvals/Permits*, in EIR Section 3.0.

A brief description of the proposed discretionary approvals associated with the Project is provided in the following subsections.

A. Tentative Parcel Map No. 35879

Tentative Parcel Map No. 35879 (TPM No. 35879) proposes to subdivide the 75.05-acre property into four (4) parcels, as depicted on Figure 3-4, Tentative Parcel Map No. 35879. In addition, TPM No. 35879 designates areas of public road dedication and improvement, and identifies the size and location of needed water, sewer, drainage, and utility infrastructure. According to TPM No. 35879, earthwork and grading activities would occur in one phase across the entire 75.05-acre property, and would result in approximately 111,030 cubic yards of cut and 159,957 cubic yards of fill. Developable parcels would range in size from 1.89 gross acres (1.54 net acres) to 53.43 gross acres (47.67 net acres). Additionally, two (2) roadway rights-of-way that were previously offered to the City of Moreno Valley but that were never accepted by the City for public use are proposed to be vacated as part of TPM No. 35879

B. Plot Plans PA11-0002, -0003, 0004, -0005, AND -0006

One (1) Master Plot Plan and four (4) individual Building Plot Plans are proposed as part of the Project. The Master Plot Plan (PA11-0002) establishes a common architectural and landscape development concept for the entire Project, depicts the location of proposed circulation facilities, and depicts the relationship between proposed on-site structures, as illustrated on Figure 3-11, *March Business Center Master Plot Plan*. The individual Building Plot Plans provide site plans, including a detailed architectural and landscape design for Parcel 1 (PA11-0003), Parcel 2 (PA11-0004), Parcel 3 (PA11-0005), and Parcel 4 (PA11-0006). Plot plans for Parcels 1 through 4 are presented on Figures 3-12 through 3-15. Table S-1, *March Business Center Statistical Summary*, summarizes the net

parcel size, total building area, and floor area ratio (FAR) of each proposed parcel and building. The Project Applicant anticipates that Parcels 1, 2, and 3 would primarily be occupied by warehouse distribution uses, while Parcel 4 would be occupied by light industrial uses.

Table S-1 March Business Center Statistical Summary

PARCEL	NET PARCEL SIZE	TOTAL BUILDING AREA	FAR[1]
1	2,077,688 s.f.	1,103,003 s.f.	0.53
2	512,072 s.f.	277,243 s.f.	0.54
3	258,479 s.f.	87,429 s.f.	0.34
4	67,144 s.f.	16,732 s.f.	0.25
Total	**2,915,383 s.f.**	**1,484,407 s.f.**	**0.51**

[1] Floor Area Ratio (FAR) is calculated by dividing the maximum building square footage by the net square footage of the parcel on which the building is located. Total FAR is calculated by dividing the total square footage of all buildings by the total net square footage of the parcels on which they would be located.
Source: PA11-0002, PA11-0003, PA11-0004, PA-0005, and PA11-0006 prepared by Bastien and Associates, Inc., August 17, 2011.

C. General Plan Amendment PA11-0001

A General Plan Amendment (PA11-0001) is proposed as part of the Project to modify the Circulation Element of the City of Moreno Valley General Plan. The proposed modifications to the Circulation Element would consist of changes to the planned alignment and classification of a segment of Krameria Road between Heacock Street and proposed Cosmos Street. Under existing conditions, Krameria Avenue terminates east of the Project site at Indian Avenue; however, the City's General Plan Circulation Element calls for Krameria Avenue to be extended to Heacock Street diagonally across the southern portion of the Project site, meeting Heacock Street at an oblique angle. The Project proposes a different alignment for Krameria Avenue, as depicted on Figure 3-19, *Proposed Modifications to Krameria Avenue Alignment*. The intended purpose of this change is to provide a 90-degree intersection where Krameria Avenue meets Heacock Street and to provide a perpendicular connection between Heacock Street and proposed Cosmos Street to allow for more safe and efficient local circulation system. In addition, the proposed General Plan Amendment would downgrade the classification for the Krameria Avenue segment between Indian Avenue and Heacock Street from a "Minor Arterial (88-foot right-of-way)" to an "Industrial Collector (78-foot right-of-way)."

D. Specific Plan Amendment P11-004

In addition to the General Plan Amendment described above, the proposed realignment and reclassification of Krameria Avenue through the Project site would require an amendment to the Moreno Valley Industrial Area Plan (Specific Plan 208). The proposed Specific Plan Amendment (P11-004) would change the planned alignment of the on-site segment of Krameria Avenue as described above in Section S.2.3.C. The proposed Specific Plan Amendment also would change the classification of the segment of Krameria Avenue between Indian Avenue and Heacock Street from a "Minor Arterial (88-foot right-of-way)" to an "Industrial Collector (78-foot right-of-way)," as would similarly occur under the proposed General Plan Amendment.

S.3 EIR PROCESS

As a first step in complying with the procedural requirements of CEQA for an EIR, an Initial Study was prepared by the City of Moreno Valley to determine whether any aspect of the proposed Project,

either individually or cumulatively, may cause a significant adverse effect on the physical environment (refer to EIR *Technical Appendix A*). For this Project, the Initial Study indicated that this EIR should focus on the 12 environmental subject areas listed above in Subsection S.1. After completion of the Initial Study, the City filed a NOP with the California Office of Planning and Research (State Clearinghouse) to indicate that an EIR would be prepared. In turn, the Initial Study and NOP were distributed for a 30-day public review period, which began on June 12, 2011 and ended on July 12, 2011.

Written comments on the scope of the EIR were received during those 30 days, and were considered by the City during the preparation of this EIR. In addition, and Pursuant to CEQA Guidelines §15082(c)(1), an advertised public meeting (called a scoping session) was held on June 29, 2011 at the Moreno Valley City Hall. After considering public comments on the NOP and during the scoping session, there were no comments received that warranted an expansion of the scope of the EIR beyond the 12 environmental issue areas listed in Subsection S.1.

This EIR is being circulated for review and comment by the public and other interested parties, agencies, and organizations for a 45-day review period. During the 45-day public review period, public notices announcing availability of the Draft EIR will be mailed to interested parties, advertisements will be posted in the local newspaper, and copies of the Draft EIR and its Technical Appendices will be available for review at the locations indicated in the public notices.

After the close of the 45-day Draft EIR public comment period, responses to written comments on the environmental effects of the proposed Project will be prepared and published. The Final EIR will then be considered for certification by the City of Moreno Valley Planning Commission and City Council during public hearing. The Planning Commission and City Council will review and consider the Final EIR prior to deciding to approve, approve with revision, or reject the proposed Project. Approval of the proposed Project would be accompanied by the adoption of written findings and a statement of overriding considerations for any significant unavoidable environmental impacts identified in the Final EIR. In addition, the City must adopt a Mitigation, Monitoring, and Reporting Program (MMRP), which describes the process to ensure implementation of the mitigation measures identified in the Final EIR to reduce or avoid significant impacts on the physical environment. The MMRP, which is included as Table S-2 in this EIR, will ensure CEQA compliance during Project construction and operation.

S.4 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

CEQA Guidelines §15123(b)(2) requires that areas of controversy known to the Lead Agency (City of Moreno Valley) be identified in the Executive Summary. The Lead Agency is aware of one issue of controversy:

- Near-term construction-related noise impacts that could affect nearby sensitive receptors (existing residences) located to the northeast of the proposed Project.

Regarding issues to be resolved, this EIR addresses the environmental issues that are known by the City and that are identified in the Initial Study prepared for the Project (refer to Appendix A of this EIR). Eleven (11) written comment letters were received by the City on this EIR's NOP, copies of which are also included in Appendix A. Environmental topics raised in written comment to the NOP are primarily related to the issue areas of transportation/traffic, hazards and hazardous materials,

cultural resources, flood hazards, public services, air quality, and impacts associated with diesel exhaust emissions. Refer to Table 1-2, *Summary of NOP Comments*, in Section 1.0 of this EIR.

S.5 ALTERNATIVES TO THE PROPOSED PROJECT

In compliance with CEQA Guidelines §15126.6, an EIR must describe a range of reasonable alternatives to the Project or to the location of the Project. Each alternative must be able to feasibly attain most of the Project's objectives and avoid or substantially lessen the Project's significant effects on the environment. A detailed description of each alternative evaluated in this EIR, as well as an analysis of the potential environmental impacts associated with each alternative, is provided in Section 6.0, Alternatives to the Proposed Project. Also described in Section 6.0 is a list of alternatives that were considered but rejected from further analysis. The alternatives considered by this EIR include those listed below.

S.5.1 ALTERNATIVE 1 – NO PROJECT ALTERNATIVE

The No Project Alternative is included in the alternatives analysis as required pursuant to CEQA Guidelines §15126.6(e), which requires evaluation of an alternative that considers what would reasonably be expected to occur on the property in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services. For purposes of analysis in this EIR, the No Project Alternative assumes that the Project site would be left in its existing condition. The proposed Project implements the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208). If the Project were not approved, it is reasonable to expect that the property would remain vacant for the foreseeable future.

S.5.2 ALTERNATIVE 2 – VACANT LOT/BUSINESS CENTER ALTERNATIVE

The Vacant Lot/Business Center Alternative considers development of the site in a way that would reduce or avoid near-term impacts during the Project's construction phase. Under this Alternative, no construction activities would occur on site within 1,100 feet of the property's northeastern corner, creating a distance between construction activities and sensitive receptors (residential homes) located to the northeast. However, and pursuant to City requirements, construction activities associated with frontage improvements along Iris Avenue still would be required. This Alternative was selected for consideration by the Lead Agency because two (2) of the Project's significant unavoidable impacts (noise and air quality) would occur during the construction phase; reducing the extent of construction activity by increasing the distance between construction and sensitive receptors has the potential to reduce or avoid these significant impacts. Under this alternative, the northeastern quadrant of the property would remain vacant and no construction activities would occur in this area, with exception of frontage improvements to Iris Avenue. The resulting building area on the Project's proposed Parcel 1 would be reduced and building space on the property as a whole would be lowered to approximately 762,800 s.f.

S.5.3 ALTERNATIVE 3 – SMALL BUILDING ALTERNATIVE

The Small Building Alternative considers developing Parcel 1 with 30 to 40 light industrial buildings that would range in size from 10,000 s.f. to 50,000 s.f. Buildings on Parcels 2 through 4 would be identical to the proposed Project. This Alternative assumes the construction of 1,316,404 s.f. of building space over the entire 75.05-acre property and construction of the same circulation system improvements as proposed by the Project (frontage improvements to Iris Avenue and Heacock Street,

construction of Cosmos Street, and construction of a segment of Krameria Avenue through the site). Due to the increase in the number of buildings proposed on Parcel 1, construction on Parcel 1 would occur over 4 phases (or 5 phases for the entire Project site), and would take approximately eight to twelve years to complete (as compared to approximately four years for the proposed Project). This Alternative was selected for consideration by the Lead Agency to determine if any of the Project's near-term construction or long-term operational significant impacts could be reduced or avoided by constructing smaller buildings on the Parcel 1 while maintaining consistency with the property's Industrial designation of the Moreno Valley Industrial Area Plan.

S.6 SUMMARY OF IMPACTS, PROJECT REQUIREMENTS, MITIGATION MEASURES, AND CONCLUSIONS

S.6.1 EFFECTS FOUND NOT TO BE SIGNIFICANT

The scope of this EIR includes 12 subject areas as determined through the completion of an Initial Study prepared by the City of Moreno Valley pursuant to CEQA Guidelines §15063 and CEQA Statute §21002.1(e), as well as consideration of public comments received by the City on this EIR's NOP and during the June 29, 2011 scoping session. The Initial Study, NOP, and public comments received in response to the NOP, are attached to this EIR as *Technical Appendix A*. Subject areas for which the Initial Study concluded that impacts would be clearly less than significant and that do not warrant further analysis in this EIR include: agricultural resources, mineral resources, population and housing, public services, and recreation. The EIR addresses these topics in EIR Subsection 5.4, Effects Found Not to be Significant as Part of the Initial Study Process.

S.6.2 IMPACTS OF THE PROPOSED PROJECT

Table S-2, *Mitigation, Monitoring, and Reporting Program*, provides a summary of the proposed Project's environmental impacts, as required by CEQA Guidelines §15123(a). Also presented are the Project's design features and mandatory project requirements that would serve to reduce or avoid impacts, as well as the mitigation measures imposed on the Project by the City of Moreno Valley to further avoid adverse environmental impacts or to reduce their level of significance.

Table S-2 Mitigation, Monitoring, and Reporting Program

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
4.1 Aesthetics					
Applicable Project Requirements					
	PR 4.1-1 The Project is required to comply with City of Moreno Valley Ordinance No. 359, which addresses artificial lighting and glare.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the issuance of building permits	
	PR 4.1-2 The Project is required to comply with all applicable development regulations and design standards of the- Moreno Valley Industrial Area Plan, including standards related to the design of artificial lighting contained within Section III, *Development Standards and Guidelines*, and Section IV, *Development Framework*.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the issuance of building permits	
Summary of Impacts					
Threshold 1: The Project would not significantly impact a scenic vista. The Project site does not contain any scenic vistas, nor does it offer unique views of any visually prominent features; therefore, impacts to scenic vistas would be less than significant.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 2: The Project has no potential to damage scenic resources within a scenic highway corridor. The Project site is not located within the viewshed of a scenic highway and the Project site does not contain any scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 3: The Project would not substantially degrade the existing visual character or quality of the site or its surrounding areas during Project construction or operation. Although the proposed Project would result in a change to the existing visual character of the site (i.e., from undeveloped land to a light industrial business center), the Project incorporates a number of site design, architectural, and landscaping elements consistent with the requirements of the MVIAP that would ensure the provision of a high quality development.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold 4: The Project would not create substantial light or glare. Compliance with the MVIAP requirements for lighting and mandatory compliance with City of Moreno Valley Ordinance No. 359 would ensure less than significant impacts associated with light and glare affecting day or nighttime views in the area.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
4.2 Air Quality					
Applicable Project Requirements					
	PR 4.2-1 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 402, "Nuisance."	Project Construction Manager, Project Tenants	South Coast Air Quality Management District (SCAQMD)	During construction activities and ongoing during long-term operation	
	PR 4.2-2 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust." Rule 403 requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving activities, grading, and equipment travel on unpaved roads.	Project Construction Manager	SCAQMD	During construction activities	
	PR 4.2-3 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 431.2, "Sulfur Content of Liquid Fuels."	Project Construction Manager, Project Tenants	SCAQMD	During construction activities and ongoing during long-term operation	
	PR 4.2-4 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1113, "Architectural Coatings."	Project Construction Manager, Project Tenants	City of Moreno Valley Building and Safety Division, SCAQMD	During construction activities and ongoing during long-term operation	
	PR 4.2-5 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1186, "PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations."	Project Construction Manager	SCAQMD	During construction activities	
	PR 4.2-6 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1186.1, "Less-Polluting Street Sweepers."	Project Construction Manager	SCAQMD	During construction activities	
	PR 4.2-7 The Project is required to comply with California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles."	Project Construction Manager, Project Tenants	SCAQMD	During construction activities and ongoing during long-term operation	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	PR 4.2-8 The Project is required to comply with California Code of Regulations Title 13, Division 3, Chapter 10, Article 1, Section 2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling."	Project Tenants	SCAQMD	Ongoing during long-term operation	
Summary of Impacts					
Threshold 1: The proposed Project would not conflict with or obstruct implementation of the SCAQMD AQMP.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Thresholds 2 and 3: Emissions during Phase 1 of Project construction would violate the SCAQMD regional threshold for NO_X. In addition, long-term operation of the Project is projected to exceed SCAQMD regional thresholds for VOC and NO_X emissions. Near- and long-term emissions of NO_X also would contribute to an existing air quality violation in the SCAB (i.e., non-attainment status for ozone) because NO_X is a precursor for ozone. As such, Project-related emissions would violate SCAQMD air quality standards and contribute to the non-attainment status of a criteria pollutant (i.e., ozone).	**MM 4.2-1** Prior to grading permit issuance, the City shall verify the following note is included on the grading plan: "The contractor shall utilize California Air Resources Board (CARB) Tier III certified equipment or better for all off-road diesel-powered construction equipment greater than 50 horsepower." "Any emissions controls device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations, with the exception that afterburners are not required." "During construction activity, truck idling shall be limited to five minutes or less." "The contractor shall implement temporary traffic control during construction pursuant to the requirements of the California Manual on Uniform Traffic Control Devices" "The contractor shall assure that mass grading shall be limited to no more than 6.5 acres per day. The contractor shall maintain a log of daily mass grading activities, which shall be provided to the City upon request."	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the issuance of grading permit(s)	Significant Unavoidable Direct and Cumulative Impact
	MM 4.2-2 Prior to issuance of each grading and building permit, the Project applicant or construction contractor shall prepare an exhibit for review by the City depicting the location of proposed equipment staging areas. The City shall	Project Applicant/ Developer	City of Moreno Valley Planning Division and Land Development Division	Prior to the issuance of grading permit(s) and building permits	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	review the proposed location(s) to ensure the staging areas are located at least 300-feet away from sensitive receptors and 1,105 feet from the northeastern corner of the Project site's property boundary as measured from the Iris Avenue right-of-way, as required by Mitigation Measure MM 4.10-1.				
	MM 4.2-3 The Project applicant shall use "Zero-Volatile Organic Compounds" paints (no more than 150 grams of VOC per liter) and/or High Pressure Low Volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113. Alternatively, the applicant shall use building materials that do not require painting or are pre-painted. Painting products and materials compliant with these requirements shall be noted on building plans.	Project Applicant/ Developer	SCAQMD, City of Moreno Valley Planning Division and Building Division	Prior to issuance of building permit (s), During construction activities and ongoing during long-term operation	
	MM 4.2-4 Prior to the issuance of each building permit, the City shall ensure that building plans require the placement of signs at truck access gates, loading docks, and truck parking areas to identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes; and 3) telephone numbers of the building facilities manager and the CARB to report violations.	Project Applicant/ Developer	City of Moreno Valley Land Development Division and Building and Safety Division	Prior to the issuance of building permits	
	MM 4.2-5 Prior to the issuance of each building permit, the City shall review the parking lot striping and security gating plan to ensure the site design allows adequate truck stacking at gates to prevent queuing of trucks outside the facility.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division and Planning Division	Prior to the issuance of building permits	
	MM 4.2-6 Prior to the issuance of occupancy permits, the applicant shall provide evidence that a sign has been installed at each exit driveway, providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the issuance of occupancy permits	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	MM 4.2-7 Prior to the issuance of occupancy permits, the Project's property owner shall provide documentation to the Planning Division verifying that a provision is included in the building's lease agreement that informs tenants using a vehicle fleet older than 2007 about the availability of grant funding from available funding sources for truck retrofit and replacement.	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of occupancy permits	
	MM 4.2-8 Prior to the issuance of occupancy permits, the Project's property owner shall provide documentation to the Planning Division verifying that a provision is included in the building's lease agreement that informs tenants about the availability of alternatively fueled cargo handling equipment. Compliance with SCAQMD Rule 403, "Fugitive Dust," is a mandatory requirement listed above as Project Requirement PR 4.2-2. The SCAQMD Rule 403 compliance, which are listed below in Mitigation Measures MM 4.2-9 and MM4.2-10.	Project Applicant/ Developer	City of Moreno Valley Planning Division, SCAQMD	Prior to the issuance of occupancy permits	
	MM 4.2-9 Prior to grading permit issuance, the City shall verify that the following notes are listed on the grading plan: "Apply non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for ten days or more)." "All trucks hauling dirt, soil, or other loose materials shall be covered." "Streets shall be swept at the end of each day if visible soil is carried onto adjacent paved public roads. Refer to SCAQMD Rule 1186.1, 'Less-Polluting Street Sweepers.'" "The construction contractor shall monitor wind speed by use of an anemometer. The contractor shall suspend all excavating and grading operations when instantaneous wind speeds exceed 25 miles per hour."	Project Applicant/ Developer, Project Construction Manager	City of Moreno Valley Land Development Division	Prior to grading permit issuance	

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THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	MM 4.2-10 Prior to the start of grading, the construction contractor shall post a sign at the property's frontage with Heacock Street and at the property's frontage with Iris Avenue stating the name and phone number of an individual to be contacted to resolve dust complaints. These signs shall remain posted on the property until grading is complete. ** Refer to MM 4.6-1 through MM 4.6-10 in Subsection 4.6, Greenhouse Gas Emissions, which also reduce impacts associated with Air Quality Thresholds 2 and 3.*	Project Construction Manager	City of Moreno Valley Land Development Division	Prior to the start of grading	
Threshold 4: The Project would expose nearby sensitive receptors to substantial concentrations of localized particulate matter (PM_{10} and $PM_{2.5}$) during construction. Long-term operation of the Project would not expose nearby sensitive receptors to substantial pollutant concentrations of any criteria pollutant or diesel particulate matter.	MM 4.2-1 through MM 4.2-6 (above) and MM 4.6-5 and MM 4.6-8 in Subsection 4.6, Greenhouse Gas Emissions, apply to Air Quality Threshold 4.	Refer to MM 4.2-1 through MM 4.2-6 and MM 4.6-5 and MM 4.6-8	Refer to MM 4.2-1 through MM 4.2-6 and MM 4.6-5 and MM 4.6-8	Refer to MM 4.2-1 through MM 4.2-6 and MM 4.6-5 and MM 4.6-8	Less than Significant Impact with Mitigation (Short-Term) and Less than Significant Impact (Long Term; Before and After Mitigation)
Threshold 5: Although near-term construction activities could produce odors associated with construction equipment exhaust, the application of asphalt, and the application of architectural coatings, standard construction requirements would minimize odor impacts to less than significant levels. Odors associated with long-term operation of the proposed Project would not significantly impact nearby sensitive receptors.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
4.3 Biological Resources					
Applicable Project Requirements					
	PR 4.3-1 The proposed Project shall comply with City of Moreno Valley Municipal Code Title 3, Chapter 3.48, *Western Riverside County Multiple Species Habitat Conservation Plan Fee Program*, which requires a per-acre local development mitigation fee that will assist in providing revenue to acquire and preserve vegetation communities and natural areas within the city and western Riverside	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	County which are known to support threatened, endangered or key sensitive populations of plant and wildlife species.				
	PR 4.3-2 The Project shall comply with City of Moreno Valley Municipal Code Title 3, Chapter 8.60, *Threatened and Endangered Species*, which requires a per-acre local development mitigation fee pursuant to the City's adopted "The Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California" and as established pursuant to Fee Resolution 89-92.	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)	
Summary of Impacts					
Threshold 1: The proposed Project has the potential to directly and cumulatively impact burrowing owls that may be present on the site at the time development occurs. The Project also has the potential to directly and cumulatively impact nesting birds that may be present on site if construction activities were to occur during the nesting season.	**MM 4.3-1** Within 30 days prior to grading, a qualified biologist shall conduct a survey of the property and make a determination regarding the presence or absence of the burrowing owl. The determination shall be documented in a report and shall be submitted, reviewed, and accepted by the Planning Division of the Community & Economic Development Department prior to the issuance of a grading permit and subject to the following provisions: a. In the event that the pre-construction survey identifies no burrowing owls on the property, a grading permit may be issued without restriction. b. In the event that the pre-construction survey identifies the presence of three (3) or more mating pairs of burrowing owl, the grading permit shall not be issued and the requirements of MSCHP Species-Specific Conservation Objective 6 for the burrowing owl shall be followed. MSHCP Species-Specific Conservation Objective 6 for the burrowing owl prohibits the take of active nests and allows passive relocation to be conducted by a qualified biologist outside of the breeding season. Passive relocation shall include the required use of one-way doors to exclude owls from the site and the collapsing of burrows). Passive relocation shall follow	Project Biologist	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s) and within 30 days prior to grading	Less than Significant Impact with Mitigation

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	CDFG relocation protocol and shall only occur between September 15 and February 1. c. In the event that the pre-construction survey identifies the presence of at least one individual but less than three (3) mating pairs of burrowing owl, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities on the property, the qualified biologist shall passively relocate any burrowing owls, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows. Passive relocation shall follow CDFG relocation protocol and shall only occur between September 15 and February 1.				
	MM 4.3-2 Prior to the issuance of any grading permits, the Planning Division shall review grading plans to ensure that the following note is included on the plans: "No more than 30 days prior to commencement of ground-disturbing activities on site, a qualified biologist shall conduct pre-construction presence/absence surveys in accordance with the MSHCP Burrowing Owl Survey Instructions requirements and as required by MSHCP Objective 6 for the burrowing owl. If owls are determined to be present, grading shall not commence between February 1 and September 15. Between September 15 and February 1, grading may commence only after the qualified biologist has passively relocated the owls following CDFG protocol."	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)	
	MM 4.3-3 As a condition of approval for all grading permits, vegetation clearing and ground disturbance shall be prohibited during the migratory bird nesting season (February 1 through September 15), unless a migratory bird nesting survey is completed in accordance with the following requirements:	Project Biologist	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	a) A nesting bird survey shall be conducted by a qualified biologist within three (3) days prior to initiating vegetation clearing or ground disturbance. b) A copy of the nesting bird survey results report shall be provided to the City of Moreno Valley. If the results of the nesting bird survey identify the presence of active nests on the property, then the qualified biologist shall provide the City of Moreno Valley Planning Division with a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impact. The size and location of all buffer zones, if required, shall be subject to review and approval by the Planning Division and shall be no less than a 300-foot radius around the nest for migratory birds and a 500-foot radius around the nest for raptors. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist and City Planning Division verify that the nests are no longer occupied and the juvenile birds can survive independently from the nests.				
Threshold 2: The Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community. Although the proposed Project would impact 0.05-acre of MSHCP riverine area in the off-site Perris Valley Storm Drain Channel (as well as 0.05-acre of Corps and RWQCB jurisdictional area and 0.06-acre of CDFG jurisdictional area), this area is an unvegetated streambed. As such, there would be no loss of functions and values of riparian habitat or substantial effect on a sensitive natural community.	Impacts to CDFG, Corps, and RWQCB would not be significant due to standard regulatory requirements requiring the acquisition of a Section 1602 Streambed Alteration Agreement, Section 401 Permit, and Section 404 Permit. As part of these permits, the following mitigation measures will be required: **MM 4.3-4** Prior to the issuance of grading permits, and in accordance with the California Fish and Game (CDFG) Code, the Project shall obtain a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Game (CDFG) for impact to 0.06-acre of CDFG jurisdictional area in the Perris Valley Storm Drain Channel. As part of the Agreement, the Project Applicant may acquire credits for the impact at a minimum 1:1 ratio from an approved in-lieu fee	Project Applicant/ Developer, CDFG	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)	Less than Significant Impact (Before and After Mitigation)

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	program or mitigation land bank. **MM 4.3-5** Prior to the issuance of grading permits, and in accordance with the Clean Water Act, the Project shall obtain a Section 404 Permit from the U.S. Army Corps of Engineers (Corps) and a Section 401 Permit from the Regional Water Quality Control Board (RWQCB) for impact to 0.05-acre of Corps and RWQCB jurisdictional area in the Perris Valley Storm Drain Channel. As part of the Permits, the Project Applicant may acquire credits for the impact at a minimum 1:1 ratio from an approved in-lieu fee program or mitigation land bank.	Project Applicant/ Developer, Corps, RWQCB	City of Moreno Valley Planning Division	Prior to the issuance of grading permit(s)	
Threshold 3: There are no federally protected wetlands on the Project site. A Section 404 Permit is required for the Project's off-site impact to 0.05-acre of Corps jurisdictional area, but this area is not a wetland.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 4: The Project would not substantially interfere with the movement of any resident or migratory fish or wildlife species, would not impact a wildlife corridor, nor impede the use of a nursery site.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 5: The Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 6: The Project is subject to the Western Riverside County MSHCP and would not conflict with any applicable MSHCP provision.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
4.4 Cultural Resources					
Applicable Project Requirements					
	PR 4.4-1 The Project is required to comply with CA Public Resources Code §5097.98, "Native American Historical, Cultural, and Sacred Sites."	Project Applicant/ Developer	City of Moreno Valley Planning Division	Ongoing during grading, earthwork, and trenching activities	
	PR 4.4-2 The Project is required to comply with California Health and Safety Code, §7050.5. "Disturbance of Human Remains."	Project Construction Manager	City of Moreno Valley Planning Division	Ongoing during grading, earthwork, and trenching activities	
Summary of Impacts					
Threshold 1: The Project would not impact a historic resource. No historic sites are present on the Project site; therefore, no	Mitigation is not required.	N/A	N/A	N/A	No Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
historic sites could be altered or destroyed by construction or operation of the proposed Project.					
Threshold 2: The Project would not impact any known or recorded archaeological resources. There is a low likelihood for unearthing archaeological resources that meet the definition of a significant resource given in California Code of Regulations during Project construction.	**MM 4.4-1** Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a qualified professional archeological monitor has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities and has the authority to halt and redirect earthmoving activities in the event that suspected archeological resources are unearthed during Project construction.	Project Applicant/ Developer, Project Construction Manager, Project Archaeologist	City of Moreno Valley Land Development Division and Planning Division	Prior to the issuance of a grading permit	Less than Significant Impact (Before and After Mitigation)
	MM 4.4-2 Prior to the issuance of a grading permit, the Applicant shall provide evidence to the City of Moreno Valley that appropriate Native American representative(s) shall be allowed to monitor and have received a minimum 30 days advance notice of all mass grading and trenching activities. Prior to grading permit issuance, appropriate local Native American representative(s) shall be notified in writing by the Applicant of the pending grading activities. During grading and trenching operations, a professional archaeological monitor shall observe all mass grading and trenching activities. If the monitor suspects that an archaeological resource may have been unearthed, the monitor shall immediately halt and redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. If the monitor determines that the suspected resource is potentially significant, the archaeologist shall notify the appropriate Native American Tribe(s) and invite a tribal representative to consult on the resource evaluation. In consultation with the appropriate Native American Tribe(s) the archaeological monitor shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. If the resource is significant, Mitigation Measure MM 4.4-3 shall apply.	Project Applicant/Project Archeologist	City of Moreno Valley Land Development Division and Planning Division	Prior to issuance of grading permit and during grading and trenching operations	
	MM 4.4-3 If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be suspended 100 feet	Project Archeologist	City of Moreno Valley Planning Division	During grading and trenching operations	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	around the resource(s). The archaeological monitor and a representative of the appropriate Native American Tribe(s), the Project Applicant, and the City Planning Division shall confer regarding mitigation of the discovered resource(s). A treatment plan shall be prepared and implemented by the archaeologist to protect the identified archaeological resource(s) from damage and destruction. The landowner shall relinquish ownership of all archaeological artifacts that are of Native American origin found on the Project site to the culturally affiliated Native American tribe for proper treatment and disposition. A final report containing the significance and treatment findings shall be prepared by the archaeologist and submitted to the City Planning Division, the appropriate Native American tribe(s), and the Eastern Information Center. **MM 4.4-4** Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan: "If any suspected archaeological resources are discovered during ground-disturbing activities, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call a qualified archaeologist to the site to assess the significance of the find.	Project Applicant/ Developer, Project Construction Manager, Project Archaeologist	City of Moreno Valley Land Development Division and Planning Division	Prior to issuance of a grading permit	
Threshold 3: The Project would not impact any known paleontological resource. There is a low likelihood for unearthing unique paleontological resources, sites, and geologic features during Project construction.	**MM 4.4-5** Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan: "If any suspected paleontological resources are discovered during ground-disturbing activities, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call a qualified paleontologist to the site to assess the significance of the find. A qualified paleontologist shall evaluate the suspected resource. If the paleontologist determines that the find is not unique, construction shall be permitted to proceed. However, if the paleontologist determines that further information is needed to evaluate significance, the City of Moreno Valley	Project Applicant/ Developer, Project Construction Manager, Project Paleontologist ŧ	City of Moreno Valley Land Development Division and Planning Division	Prior to issuance of a grading permit	Less than Significant Impact (Before and After Mitigation).

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	shall be notified and a treatment plan shall be prepared and implemented in consultation with the City to protect the identified paleontological resource(s) from damage and destruction."				
Threshold 4: No human remains have been discovered at the Project site and no human remains are known to be buried beneath the surface of the site. If human remains are uncovered during ground disturbing construction activities and are determined to be of Native American decent, compliance with California Public Resources Code §5097.98, Health and Safety Code Sections 8010-801, and a condition imposed by the City of Moreno Valley to require compliance to those provisions would reduce the potential impact to below a level of significance.	**MM 4.4-6** If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made by the Coroner. If the Riverside County Coroner determines the remains to be Native American, the California Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then immediately notify the "most likely descendants" of receiving notification of the discovery. The most likely descendants shall then make recommendations within 48 hours, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code §5097.98."	Project Construction Manager; Riverside County Coroner	City of Moreno Valley Land Development Division and Planning Division	Ongoing during grading, earthwork, and trenching activities	Less than Significant Impact (Before and After Mitigation)
4.5 Geology and Soils					
Applicable Project Requirements					
	PR 4.5-1 Structures are required to be constructed in accordance with the City of Moreno Valley Building Code (City of Moreno Ordinance No. 816) and California Code of Regulations, Title 24, Part 2, the California Green Building Standards Code, which provides minimum standards for building design.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the issuance of building permits	
	PR 4.5-2 All grading and earthwork activities are required to be performed in accordance with all applicable requirements of the City of Moreno Valley grading and excavation code (City of Moreno Valley Ordinance No. 586).	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division and Land Development Division	Prior to the issuance of grading permit(s) and building permits	
	PR 4.5-3 The Project is required to obtain coverage under the General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit, 99-08-	Project Applicant/ Developer	Santa Ana Regional Water Quality Control Board	Prior to the issuance of grading permit(s)	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	DWQ). The Permit will require the preparation and implementation of a Stormwater Pollution Prevention Plan and implementation of Best Management Practices.				
	PR 4.5-4 During grading and construction activities, the construction contractor(s) are required to comply with the requirements of SCAQMD Rule 403, Fugitive Dust.	Project Construction Manager	SCAQMD	During construction activities	
	PR 4.5-5 The Project is required by the City of Moreno Valley to comply with all recommendations given in its geotechnical study (*Technical Appendix E* to this EIR).	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division and Land Development Division	Prior to the issuance of grading permit(s) and building permits.	
Summary of Impacts					
Threshold 1: The Project would not expose people or structures to substantial adverse seismic risks. There are no known active or potentially active faults on the Project site or trending toward the Project site. On-site soils are relatively stable. The risk of liquefaction is low. There is no risk of landslide. As with all properties within the Southern California region, the Project site is subject to seismic ground shaking associated with earthquakes. However, mandatory compliance with local and state ordinances and building codes would ensure that on-site structures are developed as required to attenuate the risk to life or property to less than significant levels.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 2: The Project would not result in substantial soil erosion or loss of topsoil. Soils on the site would be exposed to water and wind erosion during grading and site development, but with the application of mandatory regulatory requirements, including the preparation and implementation of a WQMP, a SWPPP, and compliance to applicable City ordinances, erosion impacts on and off site would not be substantial and less than significant.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold 3: The Project would not cause geologic unit or soil instability. There is no potential for the Project to cause rockfalls, landslides, or lateral spreading. Although soils on the site have the potential for soil shrinkage and settlement, any potential adverse effects associated with such conditions would be less than significant with mandatory compliance with the recommendations provided within the Project geotechnical study, including requirements to remove and re-compact areas where such soil conditions exist.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 4: The Project would not be located on expansive soils. Near surface soils on the Project site possess a very low expansion potential.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 5: The Project would not install septic tanks or alternative wastewater disposal systems. Accordingly, no impact would occur associated with soil compatibility for waste disposal systems.	Mitigation is not required.	N/A	N/A	N/A	No Impact
4.6 Greenhouse Gas Emissions					
Applicable Project Requirements					
	PR 4.6-1 The Project is required to comply with mandatory regulatory requirements imposed by the State of California and the South Coast Air Quality Management District aimed at the reduction of air quality emissions. Those that are applicable to the Project and that would assist in the reduction of Project-related GHG emissions include, but are not limited to the following: a) Global Warming Solutions Act of 2006 (AB32). b) Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (SB 375). c) California Code of Regulations Title 13, Division 3 addressing diesel exhaust emissions. Specifically, Chapter 1, Article 4.5, §2025, "Regulation to Reduce Emissions of Diesel	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the issuance of building permits and ongoing during long-term operation	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles" and Chapter 10, Article 1, §2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling." d) California Code of Regulations Title 24 (California Building Code), which establishes energy efficiency requirements for new construction. e) California Code of Regulations Title 20 (Appliance Energy Efficiency Standards), which establishes energy efficiency requirements for appliances. f) South Coast Air Quality Management District Rule 1118 "PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations," and Rule 1186.1 "Less Polluting Street Sweepers."				
	PR 4.6-2 Prior to the issuance of building permits, the Building and Safety Division shall ensure that the project plans provide for on-site bicycle storage, pursuant to City of Moreno Valley Municipal Code §9.11.060.B, *Off-street bicycle parking requirements*. This requirement encourages non-vehicular transportation thereby potentially reducing mobile source emissions.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the issuance of building permits	N/A
Summary of Impacts					
Thresholds 1 and 2: The proposed Project would have a less than significant direct impact on global climate change and the Project's contribution of greenhouse gas emissions would be less than cumulatively considerable. The Project complies with all applicable CARB Scoping Plan and 2006 CAT Report GHG reduction measures. There are no other applicable plans, policies, or regulations that have been adopted for the purpose of reducing the Project's emissions of greenhouse gases.	Although Project-related GHG emissions are evaluated as less than significant on both a direct and cumulative basis, the following measures are recommended to ensure that Project-related emissions of GHGs are reduced to the maximum practical extent: **MM 4.6-1** The Project's construction drawings shall be designed to achieve certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program. Prior to issuance of a building permit, the applicant shall provide a letter from a qualified LEED consultant verifying that proposed building design features are adequate to seek LEED	Project Applicant/ Developer	City of Moreno Valley Planning Division and Building and Safety Division	Prior to issuance of building permits and following final building inspection	Less than Significant Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	certification. Following final building inspection, the Project applicant shall seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute.				
	MM 4.6-2 Prior to the issuance of grading and building permits, the Planning Division and the Land Development Division shall review grading plans and building plans to ensure that the following notes are specified: "With the exception of equipment used for asphalt paving, trenching, and off-site improvements, all diesel-powered construction equipment shall use B20 biodiesel fuel (comprising a minimum of 20% biodiesel) for the duration of construction activities. Any construction equipment whose warranty would be voided upon the use of B20 biodiesel fuel shall be exempt from this requirement. The Building and Safety Division may exempt additional pieces of equipment from this requirement upon written request from the Project applicant documenting a valid technical, economic, or physical reason why the use of B20 biodiesel fuel cannot be used. This requirement shall only apply if B20 biodiesel fuel is available within 15 roadway miles from the Project site at the time construction activities commence." "During Project construction, existing electrical power sources (e.g., power poles) shall be provided for electric construction tools including saws, drills and compressors, to minimize the need for diesel or gasoline powered electric generators."	Project Applicant/ Developer	City of Moreno Valley Planning Division and Land Development Division	Prior to the issuance of grading and building permits	
	MM 4.6-3 Prior to the approval of building permits, the Planning Division shall review landscaping plans to ensure that the following components are included: a) Landscaping palette emphasizing drought tolerant plants; and b) Use of water-efficient irrigation techniques.	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the approval of building permits	
	MM 4.6-4 The Project's mechanical/electrical /plumbing (MEP) plans shall specify U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads (if showers are proposed).	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the approval of building permits	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	Prior to the approval of building permits, the Building and Safety Division shall review the plans to ensure that these features are specified, as appropriate.				
	MM 4.6-5 Prior to the issuance of building permits, the Project applicant shall submit energy usage calculations to the Planning Division showing that the Project is designed to achieve 8% efficiency beyond the 2008 California Building Code Title 24 requirements. Example of measures that reduce energy consumption include, but are not limited to, the following (it being understood that the items listed below are not all required and merely present examples; the list is not all-inclusive and other features that reduce energy consumption also are acceptable): a) Increase in insulation such that heat transfer and thermal bridging is minimized; b) Limit air leakage through the structure and/or within the heating and cooling distribution system; c) Use of energy-efficient space heating and cooling equipment; d) Installation of electrical hook-ups at loading dock areas; e) Installation of dual-paned or other energy efficient windows; f) Use of interior and exterior energy efficient lighting that exceeds the 2008 California Title 24 Energy Efficiency performance standards; g) Installation of automatic devices to turn off lights where they are not needed; h) To the extent they are compatible with Moreno Valley Municipal Code §9.17.030, Landscape and Irrigation Design Standards, the incorporation of shade-producing trees, particularly those that shade buildings and paved surfaces such as streets and parking lots; i) Application of a paint and surface color palette that emphasizes light and off-white colors that reflect heat away from buildings; j) Design of buildings with “cool roofs” using	Project Applicant/ Developer	City of Moreno Valley Planning Division and Building and Safety Division	Prior to the issuance of building permits	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	products certified by the Cool Roof Rating Council, and/or exposed roof surfaces using light and off-white colors; k) Design of buildings to accommodate photo-voltaic solar electricity systems or the installation of photo-voltaic solar electricity systems; l) Installation of ENERGY STAR-qualified energy-efficient appliances, heating and cooling systems, office equipment, and/or lighting products; and/or m) Other measures incorporated as part of the LEED Certification process.				
	MM 4.6-6 Prior to the approval of street improvement plans, the Transportation Engineering Division shall ensure that all traffic lights installed as part of the Project will utilize Light Emitting Diodes.	Project Applicant/ Developer	City of Moreno Valley Department of Public Works (Transportation Engineering Division)	Prior to the approval of street improvement plans	
	MM 4.6-7 The Project shall comply with the following requirements to reduce the generation of solid waste during construction and under long-term operating conditions:				
	a) Prior to the issuance of grading permits, a Waste Management Plan (WMP) addressing construction activity wastes shall be prepared by the Project Applicant and submitted to the Public Works Department and Building and Safety Division for review and approval. The WRP must conform to City requirements specified in Municipal Code Section 8.80.030, which requires that at least 50 percent of all construction and demolition debris be reused, recycled, or otherwise diverted from disposal in a landfill. During grading and construction, the Project Applicant shall recycle and reuse the required percentage of materials, and keep records of the tonnage or other measurements approved by the City that can be converted to tonnage amounts. Prior to issuance of an occupancy permit, the Project Applicant shall provide evidence (i.e., receipts, weight tags, or other type of acceptable verifications) to the Public Works Department to demonstrate Project compliance with the approved WRP. Evidence must clearly identify the amount of waste disposed and materials	Project Applicant/ Developer	City of Moreno Valley Public Works Department Recycling Team, City of Moreno Valley Building and Safety Division	Prior to the issuance of grading permits, during construction, and prior to the issuance of occupancy permits	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	recycled.				
	b) Recycling shall occur during Project operational activities in accordance with all applicable solid waste and recycling requirements of the City of Moreno Valley Public Works Department. Prior to the issuance of building permits, the Building and Safety Division shall review building plans to ensure that the locations and dimensions of recyclable collection enclosures and loading areas are specified on the building plans in conformance with City requirements and City Municipal Code Chapter 6.02 "Refuse Collection, Transfer and Disposal." Prior to the issuance of occupancy permits, the Land Development Division shall conduct a field inspection to ensure that the recyclable collection enclosures and loading areas are in place and ready for use.	Project Applicant/ Developer	City of Moreno Valley Public Works Department Recycling Team, City of Moreno Valley Building and Safety Division	Prior to the issuance of building permits and prior to the issuance of occupancy permits	
	MM 4.6-8 Prior to the issuance of building permits, the Planning Division shall review building plans to ensure that a minimum of two (2) parking spaces for each building will be reserved for carpools and vanpools. Prior to the issuance of occupancy permits, the Planning Division shall conduct a field inspection to ensure that a minimum of two (2) parking spaces for each building are marked as reserved for carpools and vanpools.	Project Applicant/ Developer	City of Moreno Valley Planning Division	Prior to the issuance of building permits and prior to the issuance of occupancy permits	
	MM 4.6-9 Prior to the issuance of building permits for Parcel 1, the Planning Division and Building and Safety Division shall review building plans to ensure that a minimum of two (2) electric vehicle charging stations will be provided. Prior to the issuance of occupancy permits for Parcel 1, the Planning Division and Building and Safety Division shall conduct a field inspection to verify that the electric vehicle charging stations are in place and operable.	Project Applicant/ Developer	City of Moreno Valley Planning Division and Building and Safety Division	Prior to the issuance of building permits for Parcel 1 and prior to the issuance of occupancy permits for Parcel 1	
	MM 4.6-10 Prior to the issuance of occupancy permit, the Project's property owner shall provide documentation to the Planning Division verifying that a provision is included in the building's lease agreement which stipulates that tenants of the building shall encourage carpooling and transit	Project Applicant/Property Owner	City of Moreno Valley Planning Division	Prior to the issuance of occupancy permits	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	ridership by on-site employees. ** Refer to MM 4.2-1 through MM 4.2-6 in Subsection 4.2, Air Quality, which also reduce greenhouse gas emissions.*				
4.7 Hazards and Hazardous Materials					
Applicable Project Requirements					
	PR 4.7-1 The Project is required to comply with all federal, state, and local hazardous materials regulations, as overseen and enforced by the California Department of Toxic Substances Control, the Riverside County Department of Environmental Health and the Moreno Valley Fire Department.	Project Construction Manager, Project Tenants	Riverside County Department of Environmental Health, City of Moreno Valley Fire Department	During construction activities and ongoing during long-term operation	N/A
	PR 4.7-2 Groundwater monitoring wells requiring removal shall be abandoned in accordance with the State of California Well Standards (Department of Water Resources Bulletins 74-81 & 74-90).	Project Applicant/ Developer	City of Moreno Valley Land Development Division, Santa Ana Regional Water Quality Control Board	Prior to the issuance of grading permit(s)	N/A
	PR 4.7-3 New groundwater monitoring water wells shall be constructed in accordance with the State of California Well Standards (Department of Water Resources Bulletins 74-81 & 74-90).	Project Applicant/ Developer	City of Moreno Valley Land Development Division, Santa Ana Regional Water Quality Control Board	During construction activities	N/A
	PR 4.7-4 If underground storage tanks are discovered during the Project's grading operation, the tanks shall be removed in accordance with the State of California Underground Storage Tank Regulations (California Code of Regulations Title 23, Division 3, Chapter 16) under the oversight of the Riverside County Department of Environmental Health, Local Oversight Program.	Project Construction Manager	Riverside County Department of Environmental Health	During construction activities	N/A
	PR 4.7-5 In the event that any subsurface hazardous materials or potentially hazardous materials are found during grading, the suspected hazardous materials are required to be properly disposed of in accordance with federal, state and Riverside County Department of Environmental Health requirements.	Project Construction Manager	Riverside County Department of Environmental Health	During construction activities	N/A
	PR 4.7-6 Per the requirements Riverside County Department of Environmental Health and the CA Health and Safety Code (HSC), Chapter 6.95, Sections 25500 - 25532, a Hazardous Materials Business Emergency Plan must be prepared by any future business on the Project site that handles a	Project Tenants	Riverside County Department of Environmental Health, City of Moreno Valley Fire Department	Ongoing during long-term operation	N/A

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	hazardous material or a mixture containing a hazardous material in quantities equal to or greater than a weight of 500 pounds, total volume of 55 gallons, 200 cubic feet (at standard temperature and pressure) for compressed gas, or any radioactive material Extremely Hazardous Substance or Waste, any amount of a Regulated Substance, or any amount of an Acutely Hazardous Material.				
	PR 4.7-7 The Project is required to comply with the following standard condition of approval imposed by the City of Moreno Valley: "Prior to issuance of a Certificate of Occupancy or Building Final, a 'Knox Box Rapid Entry System' shall be provided. The Knox-Box shall be installed in an accessible location approved by the Fire Chief. The Knox-Box shall be supervised by the alarm system and all exterior security emergency access gates shall be electronically operated and be provided with Knox key switches for access by emergency personnel."	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division, City of Moreno Valley Fire Department	Prior to final building inspection	N/A
	PR 4.7-8 The Project is required to comply with the following standard condition of approval imposed by the City of Moreno Valley: "Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall be responsible for obtaining underground and/or above ground tank permits for the storage of combustible liquids, flammable liquids, or any other hazardous materials from both the County of Riverside Community Health Agency Department of Environmental Health and the Fire Prevention Bureau."	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division, City of Moreno Valley Fire Department	Prior to final building inspection	N/A
	PR 4.7-9 The Project is required to comply with the following standard City of Moreno Valley requirement: "Prior to issuance of Certificate of Occupancy, permits are required to store, dispense, use or handle hazardous material; to conduct processes which produce conditions hazardous to life or property; or to install equipment used in connection with such activities. Such permits shall not be construed as authority to violate, cancel or set aside any of the provisions of this code. Such permit shall not take the place of any license required by law. Applications for permits shall be made to the Fire Prevention Bureau in such form	Project Applicant/ Developer, Project Tenants	Riverside County Department of Environmental Health, City of Moreno Valley Building and Safety Division, City of Moreno Valley Fire Department	Prior to issuance of certificate of occupancy and ongoing during long-term operation	N/A

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	and detail as prescribed by the Bureau. Applications for permits shall be accompanied by such plans as required by the Bureau. Each application for a permit shall include a hazardous materials management plan (HMMP). The HMMP shall be posted adjacent to (other) permits when an HMMP is provided. The HMMP shall include a facility site plan designating the following: a) Storage and use areas; b) Maximum amount of each material stored or used in each area; c) Range of container sizes; d) Locations of emergency isolation and mitigation valves and devises; e) Product conveying piping containing liquids or gases, other than utility-owned fuel gas lines and low-pressure fuel gas lines; f) On and off positions of valves for valves which are of the self-indicating type; g) Storage plan showing the intended storage arrangement, including the location and dimensions of aisles. The plans shall be legible and approximately to scale. Separate distribution systems are allowed to be shown on separate pages; and h) Site plan showing all adjacent/neighboring structures and use. Each application for a permit also shall include a hazardous materials inventory statement (HMIS). Permits issued by the Fire Prevention Bureau shall be kept on the premises designated therein at all times and shall be posted in a conspicuous location on the premises or shall be kept on the premises in a location designated by the Fire Chief. Permits shall be subject to inspection at all times by an officer of the fire department or other persons authorized by the Fire Chief."				
Summary of Impacts					
Thresholds 1 and 2: During Project operation and with mandatory compliance to federal, state and local regulations, the proposed Project would not create a significant hazard to the public or the environment due to	Although impacts would be less than significant, the following mitigation measures are recommended as precautions during the Project's construction process.				Less than Significant Impact (Before and After Mitigation)

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
routine transport, use, disposal, or upset of hazardous materials.	**MM 4.7-1** Prior to grading permit issuance, the City shall verify that the Project's Grading Plan indicates: a) the location of all groundwater monitoring wells to be preserved in place; b) the method used to flag, stake, or otherwise identify the location of the groundwater monitoring wells in the field; and c) any required grading procedures or precautions to be taken in the vicinity of the monitoring well locations.	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the issuance of grading permit(s)	
	MM 4.7-2 Prior to the issuance of grading permits, the City of Moreno Valley Land Development Division shall ensure that the Project's required Stormwater Pollution Prevention Plan (SWPPP) includes emergency procedures for accidental hazardous materials releases during construction. The procedures shall include necessary personal protective equipment, spill containment procedures, and training of workers to respond to accidental spills/releases.	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the issuance of grading permit(s)	
Threshold 3: Although the Project site is located approximately 0.25 mile from the nearest school facility (Rainbow Ridge Elementary School), mandatory compliance with applicable federal, state, and local regulations, including regulations and permitting requirements from the MVFD, would ensure that operation of the proposed Project would not expose school students or staff to significant effects associated with the emissions or handling of hazardous or acutely hazardous materials, substances, or waste.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 4: The Project site is not listed on any list of hazardous materials compiled pursuant to Government Code §65962.5.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 5: The Project site is located with the influence area of March ARB/ IPA, but is not located in areas subject to crash hazards associated with airport operations. The Project does not propose any features that would be considered hazardous to airport operations.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 6: The Project site is not located in the vicinity of a private airstrip or heliport	Mitigation is not required.	N/A	N/A	N/A	No Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
and, therefore, has no potential to cause a safety impact to these facilities.					
Threshold 7: The Project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. No emergency facilities exist on the Project site, and the site does not serve as an emergency evacuation route.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 8: The Project would not expose people or structures to a significant wildfire risk. The Project site is not located in close proximity to wildland fire hazard areas. The Project would develop a vacant site, thereby reducing the risk for wildfire on the property. The Project is subject to review and approval by the MVFD to ensure that features have been incorporated within the development to address potential fire hazards.	Mitigation is not required.	N/A	N/A	N/A	No Impact
4.8 Hydrology and Water Quality					
Applicable Project Requirements					
	PR 4.8-1 The Project is required to obtain coverage under the General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit, 99-08-DWQ). The Permit will require the preparation and implementation of a Stormwater Pollution Prevention Plan and implementation of Best Management Practices.	Project Applicant/ Developer	Santa Ana Regional Water Quality Control Board	Prior to the issuance of grading permit(s)	N/A
	PR 4.8-2 The Project is required to comply with the City of Moreno Valley's standard condition of approval requiring the Project to comply with all recommendations given in its Water Quality Management Plan (Technical Appendix H2 to this EIR).	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division and Land Development Division	Prior to the issuance of grading permit(s) and building permits	N/A
	PR 4.8-3 The Project is required to construct four (4) on-site infiltration/detention basins as indicated on the Project's proposed Tentative Parcel Map and Plot Plans.	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the issuance of grading permit(s)	N/A
	PR 4.8-4 The Project is required to construct all buildings at elevations higher than the base flood elevation as indicated on the Project's Proposed Tentative Parcel Map and Plot Plans.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division, City of Moreno Valley Land Development Division	Prior to the issuance of building permits	N/A

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Summary of Impacts					
Threshold 1: The proposed Project would not violate any water quality standards or waste discharge requirements on a direct or cumulative basis. The Project is required to prepare a SWPPP to address construction-related water quality issues, and would be required to comply with a site-specific WQMP and its associated BMPs.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 2: The proposed Project proposes no potable water wells and would not substantially impact the availability of potable groundwater in the Project area.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 3: The proposed Project would generally maintain the existing drainage pattern of the site, would have no effect on the courses of any streams or rivers, and would not result in substantial erosion or siltation on or off site.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 4: There would be no significant increases in flood hazard. The proposed Project would generally maintain the existing drainage pattern of the site, would have no effect on the courses of any streams or rivers, and would not result in a substantial increase in the rate of surface runoff in a manner which would result in increased flood hazards on or off site.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 5: The proposed Project would not create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems, nor would the Project provide substantial additional sources of polluted runoff.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 6: There are no other components of the proposed Project with a potential to substantially degrade water quality.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 7: The proposed Project does not involve the construction of residential housing and therefore would not place housing in a flood area.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 8: Although the Project would redirect flood flows on site (i.e., away from proposed structures), such changes would not result in increased flood hazards to any off-	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
site properties.					
Threshold 9: The Project site is not subject to flood hazards associated with the failure of a levee or a dam.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 10: The Project site is not subject to hazards associated with seiches, tsunamis, or mudflow.	Mitigation is not required.	N/A	N/A	N/A	No Impact
4.9 Land Use and Planning					
Applicable Project Requirements					
	PR 4.9-1 The Project is required to comply with all Conditions of Approval issued by the City of Moreno Valley associated with the Project's permit applications (*i.e.*, PA11-0001, PA11-0002, PA11-0003, PA11-0004, PA11-0005, PA11-0006, PA11-0007, and P11-004)	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division, City of Moreno Valley Community and Economic Development Department (Land Development Division and Planning Division)	Prior to the issuance of grading permit(s) and building permits, and prior to final building inspection	N/A
Summary of Impacts					
Threshold 1: The proposed Project would not result in the physical division of any established communities.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 2: The proposed Project would not conflict or adversely affect the implementation of with any applicable plan, policy, or regulation adopted for the purpose of avoiding or reducing environmental effects.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 3: The proposed Project would not conflict with or adversely affect the implementation of the Western Riverside County MSHCP, nor any other habitat conservation plans or natural community conservation plans.	Mitigation is not required.	N/A	N/A	N/A	No Impact
4.10 Noise					
Applicable Project Requirements					
	PR 4.10-1 The Project is required to comply with the City of Moreno Valley Noise Ordinance (Moreno Valley Municipal Code Chapter 11.80).	Project Construction Manager, Project Tenants	City of Moreno Valley Code and Neighborhood Services Division	During construction activities and ongoing during long-term operation	N/A
Summary of Impacts					
Thresholds 1, 3, and 4: During construction of the Project, noise levels associated with Project construction activities would exceed	**MM 4.10-1** Prior to the issuance of any building or grading permits, the City of Moreno Valley Land Development Division and Building and Safety	Project Applicant/ Developer, Project Construction Manager	City of Moreno Valley Land Development Division and Building and	Prior to the issuance of grading permit(s) and building permit(s)	Significant Unavoidable Direct and Cumulative

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
levels given in the City of Moreno Valley Noise Ordinance. Existing sensitive receptors (residential homes) located northeast of the Project site would be impacted by temporary and intermittent construction noise when construction activities occur on the Project site within 1,105 feet of the northeastern corner of the property boundary. Additionally, in the event that Project construction activities occur simultaneously with construction activities on adjacent properties to the north or east, cumulative construction-related noise levels could be in excess of 79.9 dBA when measured at a distance of 200 feet from the property boundary. Under long-term operating conditions, the Project would not generate traffic-related or stationary noise levels above the standards given in the City of Moreno Valley Noise Ordinance or in any adjacent jurisdiction's General Plan. Long-term impacts would be less than significant.	Division shall review building and grading plans to ensure that the following notes are included: a) All construction activities, including but not limited to haul truck deliveries, shall be limited to between the hours of 7:00 a.m. and 8:00 p.m. b) Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. c) All stationary construction equipment shall be placed in such a manner so that emitted noise is directed away from the construction site's north and east property boundaries. d) Equipment staging shall be located at a minimum distance of 1,105 feet from the northeastern corner of the Project site's property boundary, as measured from the Iris Avenue right-of-way. e) All haul truck deliveries shall be limited to approved haul routes. Should alternate routes be necessary, haul trucks shall not use roadways that pass noise-sensitive land uses or residential dwellings unless approved by the City of Moreno Valley.		Safety Division		Impact (Short Term)
	MM 4.10-2 Prior to the issuance of any building or grading permits, the Project applicant shall prepare a Construction Haul Route exhibit identifying all public and private roadways that will be used for haul truck deliveries. The Construction Haul Route exhibit shall explicitly prohibit the use of Iris Avenue. The Construction Haul Route exhibit shall be subject to review and approval by the Building and Safety Division. Once approved, copies of the Construction Haul Route exhibit shall be provided to all construction contractors, and all construction contractors shall ensure that haul truck deliveries utilize only City-approved haul routes. Should alternate routes be necessary, haul trucks shall not use roadways that pass noise-sensitive land uses or residential dwellings unless prior approval is granted by the City of Moreno Valley.	Project Applicant/ Developer	City of Moreno Valley Land Development Division, Building, Safety Division, and Transportation Engineering Division	Prior to the issuance of grading permit(s) and building permits	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold 2: Near-term construction activities and long-term operation of the proposed Project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 5: The Project site is located within the influence area of the March Air Reserve Base (MARB) and its 60dBA noise contour, which is an acceptable noise level for the Project's proposed land uses. As such, the Project would not expose people to excessive noise levels associated with the operation of an airport.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 6: There are no private airstrips in the vicinity of the Project site; as such, the Project has no potential to expose people residing or working in the area to excessive noise levels associated with operation of a private airstrip.	Mitigation is not required.	N/A	N/A	N/A	No Impact
4.11 Transportation/Traffic					
Applicable Project Requirements					
	PR 4.11-1 The Project will construct roadway improvements (including but not limited to parkway, landscaping, and sidewalk improvements) along its frontage with Iris Avenue and Heacock Street as described in the City of Moreno Valley's Conditions of Approval for Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan PA11-0002, and individual Building Plot Plans PA11-0003, PA11-0004, PA11-0005, and PA11-0006.	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the issuance of the first (1st) occupancy permit	N/A
	PR 4.11-2 The Project will construct improvements to Cosmos Drive (including but not limited to parkway, landscaping, and sidewalk improvements) as described in the City of Moreno Valley's Conditions of Approval for Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan PA11-0002, and individual Building Plot Plans PA11-0003, PA11-0004, PA11-0005, and PA11-0006.	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the issuance of the first (1st) occupancy permit	N/A
	PR 4.11-3 The Project will construct improvements to Krameria Avenue (including but not limited to parkway, landscaping, and sidewalk improvements) as described in the City of Moreno Valley's Conditions of Approval for Tentative	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the issuance of the first (1st) occupancy permit	N/A

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	Parcel Map No. 35879 (PA11-0007), Master Plot Plan PA11-0002, and individual Building Plot Plans PA11-0003, PA11-0004, PA11-0005, and PA11-0006.				
	PR 4.11-4 The Project will construct intersection improvements at each Project Driveway as described in the City of Moreno Valley's Conditions of Approval for Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan PA11-0002, and individual Building Plot Plans PA11-0003, PA11-0004, PA11-0005, and PA11-0006.	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the issuance of the first (1st) occupancy permit	N/A
	PR 4.11-5 The Project shall comply with the City of Moreno Valley Development Impact Fee (DIF), which requires the payment of a fee to the City to reduce traffic congestion by installing intersection improvements. The following DIF-funded intersection improvements are applicable: a) Frederick Street/Cactus Avenue (one eastbound through lane) b) Heacock Street/Gentian Avenue (install traffic signal) c) Heacock Street/Iris Avenue (install traffic signal, one northbound through lane, and one westbound right turn lane with overlap phasing) d) Heacock Street/Krameria Avenue (install traffic signal, one southbound left turn lane, one westbound left turn lane, and one westbound right turn lane) e) Heacock Street/San Michel Road (one southbound left turn lane and one westbound right turn lane with overlap phasing) f) Indian Street/Nandina Avenue (one northbound through lane and one southbound through lane)	Project Applicant/ Developer	City of Moreno Valley Department of Public Works (Transportation Engineering Division), City of Moreno Valley Land Development Division	Prior to the issuance of building permits	N/A
	PR 4.11-6 The Project shall participate in funding of off-site transportation improvements through the payment of Transportation Uniform Mitigation Fees (TUMF). The following TUMF-funded intersection improvements are applicable:	Project Applicant/ Developer	City of Moreno Valley Department of Public Works (Transportation Engineering Division)	Prior to the issuance of building permits	N/A

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	a) I-215 Southbound Ramps/Cactus Avenue (one eastbound free right lane, one westbound left turn lane) b) I-215 Southbound Ramps/Harley Knox Blvd. (two southbound left turn lanes, one westbound left turn lane) c) I-215 Northbound Ramps/Cactus Avenue (one northbound right turn lane, one eastbound through turn lane, one westbound through lane, one westbound through lane, one westbound right turn lane) d) I-215 Northbound Ramps/Harley Knox Blvd (one northbound right turn lane, one eastbound left turn lane, one eastbound through lane, one westbound through lane, two westbound right turn lanes) e) Frederick Street/Cactus Avenue (one westbound through lane and one eastbound through lane) f) Heacock Street/Krameria Avenue (one northbound through lane) g) Indian Street/Harley Knox Blvd. (one eastbound through lane)				
	PR 4.11-7 On-site direction signing and striping is required to be installed in conjunction with detailed construction plans for the Project and as approved by the City of Moreno Valley. The on-site signing and striping plans shall be subject to review and approval by the Planning Division, and shall clearly indicate the location of service area docks and public parking areas.	Project Applicant/ Developer	City of Moreno Valley Department of Public Works (Transportation Engineering Division)	Prior to the issuance of building permits	N/A
	PR 4.11-8 All final grading, landscaping, and street improvement plans are required to provide sight distance standards in accordance with City of Moreno Valley and California Department of Transportation (Caltrans) standards.	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the issuance of building permits	N/A
	PR 4.11-9 The minimum number of vehicle and bicycle parking spaces specified by the City of	Project Applicant/ Developer	City of Moreno Valley Department of Public	Prior to the issuance of building permits	N/A

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	Moreno Valley Municipal Code is required to be provided.		Works (Transportation Engineering Division), City of Moreno Valley Planning Division		
	PR 4.11-10 Space for a future transit stop will provided via an easement provided by the Project on the eastbound side of Iris Avenue as described in the City of Moreno Valley's Conditions of Approval for Tentative Parcel Map No. 35879 (PA11-0007).	Project Applicant/ Developer	City of Moreno Valley Land Development Division	Prior to the approval of the Final Map for Tentative Parcel Map No. 35879	N/A
	PR 4.11-11 All construction hauling vehicles shall use the City-approved truck route. Alternative routes used by vehicles hauling construction equipment, materials, or earth must receive prior approval by the City of Moreno Valley.	Project Applicant/ Developer	City of Moreno Valley Land Development Division and Building and Safety Division	Prior to the issuance of grading permit(s) and building permits	
Summary of Impacts					
Threshold 1: The proposed Project would directly and cumulatively impact the existing and planned roadway network by contributing traffic to facilities that would operate at deficient levels of service.	**MM 4.11-1** Prior to issuance of the Project's first occupancy permit, a traffic signal (programmed under the City of Moreno Valley DIF) shall be installed at the intersection of Heacock Street/Gentian Avenue	Project Applicant/ Developer	City of Moreno Valley Public Works Department (Transportation Engineering Division)	Prior to the issuance of the first (1st) occupancy permit	Significant Unavoidable Direct and Cumulative Impact
	MM 4.11-2 Prior to issuance of the first occupancy permit, the following improvements shall be in place at the intersection of Heacock Street/Iris Avenue: a) Traffic signal b) Northbound: two through lanes c) Northbound: one right turn lane	Project Applicant/ Developer	City of Moreno Valley Public Works Department (Transportation Engineering Division)	Prior to the issuance of the first (1st) occupancy permit	
	MM 4.11-3 In the event that the City of Moreno Valley and/or the City of Perris establish a fair-share funding program(s) for improvements to any of the following intersections or immediately adjacent roadway segments that contribute to the intersection's level of service, then prior to the issuance of building permits, the Project shall contribute a fair-share payment to the funding program to address the Project's cumulative impacts to the following facilities:	Project Applicant/ Developer	City of Moreno Valley Land Development Division and Public Works Department (Transportation Engineering Division)	Prior to the issuance of building permits	

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	a) Intersection of Heacock Street/Cactus Avenue (Project's fair-share contribution is 6.4%); b) Intersection of Indian Street/San Michele Road (Project's traffic contribution is 5.8%); c) Intersection of Indian Street/Nandina Avenue (Project's traffic contribution is 7.5%); d) Intersection of Indian Street/Harley Knox Blvd (Project's traffic contribution is 5.4%). **MM 4.11-4** In the event that the City of Moreno Valley establishes a fair-share funding program for improvements to Indian Street between Iris Avenue and Gentian Avenue prior to the issuance of building permits, the Project shall contribute a fair-share payment to the City-established funding program to address the Project's cumulative impacts at General Plan buildout.	Project Applicant/ Developer	City of Moreno Valley Land Development Division and Public Works Department (Transportation Engineering Division)	Prior to the issuance of building permits	
Threshold 2: The proposed Project would make a short-term cumulatively considerable contribution to impacts on four (4) I-215 freeway segments until such time as the planned widening of I-215 is complete.	The proposed Project would make a short-term cumulatively considerable contribution to impacts on four (4) I-215 freeway segments until such time as the planned widening of I-215 is complete. I-215 is under the jurisdiction of Caltrans and there is no feasible mitigation available to reduce or avoid the Project's contribution of traffic to I-215.	N/A	N/A	N/A	Significant Unavoidable Cumulative Impact (Short-Term)
Threshold 3: There is no potential for the Project to change air traffic levels or create substantial air traffic safety risks.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 4: No transportation safety hazards would be introduced as a result of the proposed Project's design.	Mitigation is not required.	N/A	N/A	N/A	No Impact
Threshold 5: Adequate emergency access would be provided to the Project site.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 6: The proposed Project is consistent with adopted policies and programs regarding public transit, bicycle, and pedestrian facilities. The Project is designed to reduce all potential transportation mode conflicts.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
4.12 Utilities and Service Systems					
Applicable Project Requirements					
	PR 4.12-1 The Project is required to comply with all applicable provisions of the City of Moreno Valley Municipal Code Chapter 6.02 "Refuse Collection, Transfer and Disposal" and Chapter 8.80 "Recycling and Diversion of Construction and Demolition Waste."	Project Construction Manager, Project Tenants	City of Moreno Valley Building and Safety Division, City of Moreno Valley Department of Public Works (Administration/Solid Waste and Recycling Division)	During construction activities, prior to the issuance of building permits, and ongoing during long-term operation	N/A
	PR 4.12-2 The Project is required to install water and wastewater conveyance facilities in accordance with the California Green Building Standards Code and to the requirements of the Eastern Municipal Water District.	Project Applicant/ Developer	City of Moreno Valley Building and Safety Division	Prior to the issuance of building permits	N/A
	** Project Requirements PR 4.3-2 and PR 4.3-3 specified in Subsection 4.3, Biological Resources, and Mitigation Measures MM 4.6-3, MM 4.6-4 and MM 4.6-7 in Subsection 4.6, Greenhouse Gas Emissions, also apply to Utilities and Service Systems.*				
Summary of Impacts					
Threshold 1: The Project would not exceed wastewater treatment requirements of the Santa Ana RWQCB. Wastewater treatment and collection services would be provided by EMWD and EMWD is required to operate all of its treatment facilities in accordance with applicable waste treatment and discharge standards and requirements set forth by the RWQCB. The proposed Project would not install or use septic systems or alternative wastewater treatment systems.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 2: Water would be conveyed to the site through EMWD's existing water line network. Wastewater would be conveyed from the site through EMWD's existing wastewater collection network and treated at existing EMWD treatment facilities. With the exception of water and sewer conveyance lines that would be installed during the Project's construction, the Project would not require the construction of any new water or wastewater systems that have the potential to	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact

THRESHOLD	PROJECT REQUIREMENTS (PR) AND MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
cause significant environmental effects. No new or expanded capacities or entitlements would be required.					
Threshold 3: Stormwater would be collected on the Project site by an on-site drainage system installed during the Project's construction. With the exception of stormwater conveyance facilities and detention basins that would be installed during the Project's construction, the Project would not require the construction of any new stormwater drainage facilities that have the potential to cause significant environmental effects.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 4: Sufficient water supplies are available to service the Project. EMWD would service the Project based on planned and existing water supplies as documented in its Urban Water Management Plan and a water supply assessment prepared for the Project.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 5: EMWD would provide wastewater treatment services to the Project site via the Moreno Valley Regional Water Reclamation Facility and the Perris Valley Regional Water Reclamation Facility. Both of these facilities have adequate capacity to service the Project and no new or expanded facilities would be needed.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 6: There is adequate capacity available at the El Sobrante, Badlands, and Lamb Canyon landfills to accept the Project's solid wastes. Landfill capacity would not be exceeded as a result of the proposed Project.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact
Threshold 7: The Project would comply with all applicable federal, state, and local statutes and regulations related to solid waste disposal, reduction, and recycling.	Mitigation is not required.	N/A	N/A	N/A	Less than Significant Impact

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1.0 INTRODUCTION

1.1 PURPOSES OF CEQA AND THIS EIR

As stated by CEQA Guidelines §15002, the basic purposes of CEQA are to:

- Inform governmental decision makers and the public about the potential, significant environmental effects of proposed [government actions (including the discretionary approval of development projects)];

- Identify the ways that environmental damage can be avoided or significantly reduced;

- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and

If a project will be approved involving significant environmental effects,

- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose.

This Environmental Impact Report (EIR, P11-005) is an informational document prepared by the City of Moreno Valley to evaluate the physical environmental effects that could be caused by constructing and operating the March Business Center Project (hereafter, the "Project"). The Project proposes governmental approvals of a General Plan Amendment (PA11-0001), Specific Plan Amendment (P11-004), Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan (PA11-0002), four (4) individual Building Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006), and other related discretionary and administrative actions that are required to construct and operate the Project described in this EIR.

The Project is proposed on a 75.05-acre property located at the southeast corner of Heacock Street and Iris Avenue in the City of Moreno Valley, Riverside County, California. The City of Moreno Valley's Specific Plan 208, titled "Moreno Valley Industrial Area Plan" (MVIAP), designates the property for development as "Industrial." The northwestern corner of the property located within an "Industrial Support Area" overlay that allows for commercial or industrial support land uses to be located within 300 feet of key roadway intersections, including Iris Avenue/Heacock Street at the property's northwestern corner. The City of Moreno Valley's General Plan Land Use Map, which is intended to reflect the land use designations applied to the site by Specific Plan 208, designates the property for development with "Business Park/Light Industrial (BP)" land uses, with the northwestern corner of the property designated as "Commercial." The General Plan's designation of the northwestern portion of the site as "Commercial" is intended to correspond to the Specific Plan's "Industrial Support Area" overlay designation. Consistent with these land use designations, the property's zoning designation is Industrial (I).

The proposed Project is consistent with the property's land use designations as applied by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208), as well as the property's zoning designation. CEQA Guidelines §15183(a) mandates that projects which are

consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified, shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. In this case, the subject property was evaluated as part of an EIR certified in 1989 for Specific Plan 208 (State Clearinghouse Number 1988080813) and as part of the City's General Plan Program EIR certified in 2006 (State Clearinghouse Number 2000091075). Therefore, as mandated by CEQA Guidelines §15183(a), this EIR focuses on project-specific effects that are peculiar to the proposed March Business Center project and its 75.05-acre property.

An Initial Study was prepared by the City of Moreno Valley pursuant to CEQA Guidelines §15063 to determine if the Project could have a significant effect on the environment. The Initial Study determined that implementation of the Project has the potential to result in significant environmental effects, and a Project EIR, as defined by CEQA Guidelines §15161, is required. As stated in CEQA Guidelines §15161, a Project EIR should "…focus primarily on the changes in the environment that would result from the development project," and "…examine all phases of the project including planning, construction, and operation."

Accordingly, and in conformance with CEQA Guidelines §15121(a), the purposes of this EIR are to: (1) disclose information by informing public agency decision makers and the public generally of the significant environmental effects associated with all phases of the Project, (2) identify possible ways to minimize or avoid those significant effects, and (3) to describe a reasonable range of alternatives to the Project that would feasibly attain most of the basic Project objectives but would avoid or substantially lessen its significant environmental effects.

1.2 SUMMARY OF THE PROJECT EVALUATED BY THIS EIR

For purposes of this EIR, the term "Project" refers to the discretionary actions required to implement the March Business Center as proposed and all of the activities associated with its implementation, including planning, construction, and ongoing operation. In summary, the Project proposes the construction and operation of a business center with up to 1,484,407 square feet (s.f.) of building space, as well as surface parking areas and drive aisles, loading docks, roadway improvements, utility infrastructure, landscaping, water quality/detention basins, and other site improvements.

The Project proposes the following discretionary actions, which are under consideration by the City of Moreno Valley:

- **General Plan Amendment (PA11-0001)** proposes to amend the Circulation Element of the City of Moreno Valley General Plan to modify the design and classification of an undeveloped segment of Krameria Avenue that is designated by the General Plan to traverse through the Project site.

- **Specific Plan Amendment (P11-004)** proposes to amend the Moreno Valley Industrial Area Plan (Specific Plan 208) to modify the design and classification of an undeveloped segment of Krameria Avenue that is designated by the Specific Plan to traverse through the Project site.

- **Tentative Parcel Map No. 35879 (PA11-0007)** proposes to subdivide the 75.05-acre Project site into four (4) parcels to accommodate the development and operation of a business park,

and would provide for roadway improvements (including dedication of public right-of-way to the City of Moreno Valley) and installation of utility infrastructure, water quality/detention basins, and other site improvements.

- **Master Plot Plan (PA11-0002) & Individual Plot Plans (PA11-0003, -0004, -0005, and –0006)** provide a land use plan, architectural plans, and landscape design for each of the four (4) buildings that are proposed to be constructed on the Project site. A maximum of 1,484,407 s.f. of building area is proposed to be provided on the site.

Refer to EIR Section 3.0, Project Description, for a detailed description of the proposed Project, including a listing of permits and actions that would be required of the City of Moreno Valley as well as other agencies and authorities.

1.3 PROJECT HISTORY

The proposed Project site is located within the geographical limits of the City of Moreno Valley's Moreno Valley Industrial Area Plan (Specific Plan 208). The Moreno Valley Industrial Area Plan was originally referred to as the Oleander Specific Plan when first approved by the City in 1989; but, was renamed as the Moreno Valley Industrial Area Plan in 2001 after the plan was amended to expand the Specific Plan boundaries. The Moreno Valley Industrial Area Plan was amended again in 2002 in order to consolidate the "Business Park," "Mixed Use," "Light Industry," and "Heavy Industrial" land use designations of the original Specific Plan within a single "Industrial" land use classification.

The Project site was the subject of previous environmental review under CEQA as part of an EIR certified in 1989 for the Oleander Specific Plan (SCH No. 1988080813). The Project site also was evaluated as part of the City of Moreno Valley's General Plan Program EIR (SCH No. 2000091075), certified July 11, 2006.

In 2008, an application was submitted to the City of Moreno Valley to develop the Project site as an business center, consistent with the property's General Plan and Specific Plan land use designations and zoning designation of Industrial (I). The application, which consisted of a General Plan Amendment (PA08-0057), Specific Plan Amendment (P08-060), Tentative Parcel Map (PA07-0151), Master Plot Plan (PA07-0152), and four (4) individual Building Plot Plans (PA07-0153, PA07-0154, PA07-0155, PA07-0156) was approved by the Moreno Valley City Council on August 25, 2009 (hereafter, the "prior project"). In June 2010, the approval was rescinded in response to judgment entered in an action entitled *Residents for a Livable Moreno Valley v. City of Moreno Valley*, Riverside County Superior Court, Case No. RIC 536464 (hereafter, the "Action").

A Mitigated Negative Declaration (MND) was prepared by the City of Moreno Valley pursuant to CEQA Guidelines Article 6 (§§15070 though 15075) that supported the City's decision to approve the prior project. The MND concluded that although development of the site as proposed by the prior project would have resulted in significant environmental effects, all of those effects could be mitigated to below established thresholds of significance. On September 18, 2009, the Action was filed in Riverside County Superior Court to challenge approval of the prior project pursuant to the MND. In June 2010, the Court entered judgment and issued a peremptory writ of mandate in the Action, directing the City of Moreno Valley to set aside its approval of the prior project and the

MND on the ground that there was substantial evidence that construction noise resulting from the prior project would pose a significant impact on the environment.

This EIR evaluates a newly-submitted set of applications for development of the Project site, as described in detail in Section 3.0, Project Description. The currently proposed Project is nearly identical in design to the prior project that was rescinded. The proposed Project's physical layout and development intensity remain unchanged from the prior project approval; the only differences are relatively minor, technical changes to conform to newly-updated City plans and standards (*e.g.*, modified net parcel acreages, roadway cross-section details, landscaping plans).

This EIR represents a full and complete analysis of the proposed Project as required by CEQA. In Section 4.0, Environmental Analysis, some of the methodologies and conclusions differ from those previously presented in the MND to take into account, but not limited to: 1) a baseline environmental setting of June 2011 (the date this EIR's Notice of Preparation (NOP) was released for public review), 2) input from the public about the environmental issues of concern as identified in responses to the NOP; 3) the availability of new technical studies and information applicable to the Project, the Project site, and/or the environmental resources potentially affected by the Project; 4) amendments to the State CEQA Guidelines; 5) amendments to and adoption of state and federal regulations pertaining directly or indirectly to the environmental resources potentially affected by the Project; 6) the release of updated computer models for calculating air quality emissions (California Emissions Estimating Model™ (CALEEMod™, 2011) and traffic distribution (Syncro Version 7, Build 759) impacts; and 7) additions to CEQA case law.

1.4 LEGAL AUTHORITY

This EIR has been prepared in accordance with all criteria, standards, and procedures of CEQA (California Public Resource Code Section 21000 *et seq.*) and the CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15000 *et seq.*).

Pursuant to CEQA §21067 and CEQA Guidelines Article 4 and §15367, the City of Moreno Valley is the Lead Agency under whose authority this EIR has been prepared. "Lead Agency" refers to the public agency that has the principal responsibility for carrying out or approving a project. Serving as the Lead Agency and before taking action to approve the Project, the City of Moreno Valley has the obligation to: (1) ensure that this EIR has been completed in accordance with CEQA; (2) review and consider the information contained in this EIR as part of its decision making process; (3) make a statement that this EIR reflects the City of Moreno Valley's independent judgment; (4) ensure that all significant effects on the environment are eliminated or substantially lessened where feasible; and, if necessary (5) make written findings for each unavoidable significant environmental effect stating the reasons why mitigation measures or project alternatives identified in this EIR are infeasible and citing the specific benefits of the proposed Project that outweigh its unavoidable adverse effects (CEQA Guidelines §§15090 through 15093).

Pursuant to CEQA Guidelines §§15040 through 15043, and upon completion of the CEQA review process, the City of Moreno Valley will have the legal authority to do any of the following:

- Approve the proposed Project;

- Require feasible changes in any or all activities involved in the Project in order to substantially lessen or avoid significant effects on the environment;

- Disapprove the Project, if necessary, in order to avoid one or more significant effects on the environment that would occur if the Project was approved as proposed; or

- Approve the Project even through the Project would cause a significant effect on the environment if the City makes a fully informed and publicly disclosed decision that: 1) there is no feasible way to lessen the effect or avoid the significant effect; and 2) expected benefits from the Project will outweigh significant environmental impacts of the Project.

This EIR fulfills the CEQA environmental review requirements for the proposed General Plan Amendment (PA11-0001), Specific Plan Amendment (P11-004), Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan (PA11-0002), four (4) individual Building Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006) and all other governmental discretionary and administrative actions related to the Project.

This EIR is an informational document intended for use by the City of Moreno Valley decision makers, Trustee and Responsible agencies, and members of the general public in evaluating the physical environmental effects of the proposed Project. As mandated by CEQA Guidelines §15183(a), this EIR focuses on the specific environmental effects that are peculiar to the proposed Project and its property, because designation of the property for industrial/business park development was previously and adequately evaluated in accordance with CEQA by two prior EIRs (an EIR certified in 1989 for Specific Plan 208 (State Clearinghouse Number 1988080813) and the City's General Plan Program EIR certified in 2006 (State Clearinghouse Number 2000091075)). As such, that analysis does not need to be repeated.

1.5 RESPONSIBLE AND TRUSTEE AGENCIES

Section 21104 of the California Public Resource Code requires that all EIRs be reviewed by state responsible and trustee agencies (see also CEQA Guidelines §15082 and §15086(a)). As defined by CEQA Guidelines §15381, "the term 'Responsible Agency' includes all public agencies other than the Lead Agency which have discretionary approval power over the project." A Trustee Agency is defined in CEQA Guidelines §15386 as "a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California."

For the proposed Project, Table 1-1, *Responsible and Trustee Agencies*, lists the agencies that are identified as Responsible and/or Trustee Agencies with respect to the environmental resources potentially affected by the proposed Project. The table also identifies the action or discretionary decision each agency is required to make associated with the Project.

Table 1-1 Responsible and Trustee Agencies

AGENCY	ENVIRONMENTAL RESOURCE	ACTION/DECISION
Responsible Agencies		
U.S. Army Corps of Engineers	Jurisdictional wetlands and waterways	Issuance of a Section 404 Permit pursuant to the Clean Water Act.
Trustee Agencies		
California Department of Fish and Game	Jurisdictional wetlands and waterways	Issuance of a Section 1602 Streambed Alteration Agreement pursuant to the Fish and Game Code.
Santa Ana Regional Water Quality Control Board	Jurisdictional wetlands and waterways and protection of water resources (water quality)	Issuance of a Section 401 Permit pursuant to the Clean Water Act. Issuance of National Pollution Discharge Elimination System (NPDES) Permit to ensure that during and after construction, on-site water flows do not result in siltation, other erosional actions, or degradation of surface or subsurface water quality.

1.6 EIR SCOPE, FORMAT, AND CONTENT

1.6.1 EIR SCOPE

As a first step in complying with the procedural requirements of CEQA, an Initial Study was prepared by the City of Moreno Valley to preliminarily identify the environmental issue areas that may be adversely impacted by the Project. Following completion of the Initial Study, the City filed a NOP with the California Office of Planning and Research (State Clearinghouse) to indicate that an EIR would be prepared to evaluate the Project's potential to impact the environment. The NOP was filed with the State Clearinghouse and distributed to Responsible Agencies, Trustee Agencies, and other interested parties on June 13, 2011, for a 30-day public review period. The objective of distributing the NOP for public review was to solicit responses to assist the City in identifying the full scope and range of potential environmental concerns associated with the Project so that these issues could be fully examined in this EIR. In addition, a publicly noticed EIR Scoping Meeting was held at the Moreno Valley City Hall on June 29, 2011, which provided members of the general public an additional opportunity to comment on the scope and range of potential environmental concerns to be addressed in this EIR.

As a result of the Initial Study and in consideration of all comments received by the City on the NOP and during the Scoping Meeting, this EIR evaluates the Project's potential to cause adverse effects to the following environmental issue areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology/Soils
- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Noise
- Transportation/Traffic
- Utilities/Service Systems

The Initial Study, NOP, public review distribution list, and written comments received by the City during the 30-day NOP public review period are provided in *Technical Appendix A* to this EIR. Substantive issues raised in response to the NOP are summarized below in Table 1-2, *Summary of NOP Comments*. The purpose of this table is to present the primary environmental issues of concern raised during the NOP review period. The table is not intended to list every comment received by the City during the NOP review period. Regardless of whether or not a comment is listed in the table, all applicable comments received in responses to the NOP and at the EIR Scoping Meeting are addressed in this EIR.

Table 1-2 Summary of NOP Comments

• Potential project-related impacts to circulation facilities located in the City of Riverside.
• Potential exposure of the Project site to adverse noise and safety impacts and potential land use compatibility issues with March Air Reserve Base.
• Potential impacts to wells used to monitor the March Air Reserve Base groundwater plume.
• Potential impacts to sensitive cultural resources that may be present beneath the property's surface.
• Potential exposure of people and/or structures on the Project site to hazards associated with the 100-year floodplain.
• Potential impacts to public services, in consideration of financial issues facing government agencies.
• Potential impacts to the State highway system and other regionally significant roadways.
• Potential impacts on air quality and to human health resulting from Project construction and anticipated operation (including direct and indirect effects from Project traffic).

The issue of near-term construction-related noise is identified by the Lead Agency as an area of controversy associated with the proposed Project. In consideration of all comments received in response to the NOP, the City of Moreno Valley has identified no additional areas of controversy raised by agencies and/or the public.

1.6.2 EIR FORMAT AND CONTENT

This EIR contains all of the information required to be included in an EIR as specified by the CEQA Statutes and Guidelines (California Public Resources Code, Section 21000 *et. seq.* and California Code of Regulations, Title 14, Chapter 5). CEQA requires that an EIR contain, at a minimum, certain specified content. Table 1-3, *Location of CEQA Required Topics*, provides a quick reference in locating the CEQA-required sections within this document.

Table 1-3 Location of CEQA-Required Topics

CEQA REQUIRED TOPIC	CEQA GUIDELINES REFERENCE	LOCATION IN THIS EIR
Table of Contents	§15122	Table of Contents
Summary	§15123	Section S.0
Project Description	§15124	Section 3.0
Environmental Setting	§15125	Section 2.0
Consideration and Discussion of Environmental Impacts	§15126	Section 4.0
Significant Environmental Effects Which Cannot be Avoided if the Proposed Project is Implemented	§15126.2(b)	Section 4.0 & Subsection 5.1
Significant Irreversible Environmental Changes Which Would be Caused by the Proposed Project Should it be Implemented	§15126.2(c)	Subsection 5.2
Growth-Inducing Impact of the Proposed Project	§15126.2(d)	Subsection 5.3
Consideration and Discussion of Mitigation Measures Proposed to Minimize Significant Effects	§15126.4	Section 4.0 & Table S-1
Consideration and Discussion of Alternatives to the Proposed Project	§15126.6	Section 6.0
Effects Not Found to be Significant	§15128	Subsection 5.4
Organizations and Persons Consulted	§15129	Section 7.0 & Technical Appendices
Discussion of Cumulative Impacts	§15130	Section 4.0

In summary, the content and format of this EIR is as follows:

- **Section 1.0, Introduction,** provides introductory information about the CEQA process and the responsibilities of the City of Moreno Valley, serving as the Lead Agency for this EIR.

- **Section 2.0, Environmental Setting,** describes the environmental setting, including descriptions of the Project site's physical conditions and surrounding context. The existing setting is defined as the condition of the Project site and surrounding area at the date this EIR's NOP was released for public review (June 13, 2011).

- **Section 3.0, Project Description,** serves as the EIR's Project Description for purposes of CEQA and contains a level of specificity commensurate with the level of detail proposed by the Project, including the summary requirements pursuant to CEQA Guidelines §15123.

- **Section 4.0, Environmental Analysis**, provides an analysis of potential direct, indirect, and cumulative impacts that may occur with implementation of the proposed Project. A conclusion concerning significance is reached for each discussion; mitigation measures are presented as warranted. The environmental changes identified in Section 4.0 and throughout this EIR are referred to as "effects" or "impacts" interchangeably. The CEQA Guidelines also identify the terms "effects" and "impacts" as being synonymous (CEQA Guidelines §15358). In the environmental analysis subsections of Section 4.0, the existing conditions are disclosed that are pertinent to the subject area being analyzed, accompanied by a specific analysis of physical impacts that may be caused by implementation of the proposed Project. The analyses are based in part upon technical reports that are appended to this EIR. Information also is drawn from other sources of analytical materials that directly or indirectly relate to the proposed Project and cited in Section 7.0, References. Where the analysis demonstrates that a physical adverse environmental effect may or would (without undue speculation) occur, feasible mitigation measures are recommended to reduce or avoid the significant effect. In most cases, implementation of the mitigation measures would reduce the adverse environmental impact to below a level of significance. If mitigation measures are not available or feasible to reduce an identified impact to below a level of significance, the environmental effect is identified as a significant and unavoidable adverse impact, for which a statement of overriding considerations would need to be adopted by the City of Moreno Valley pursuant to CEQA §15093.

- **Section 5.0, Other CEQA Considerations**, includes specific topics that are required by CEQA. These include a summary of the Project's significant and unavoidable environmental effects, a discussion of the significant and irreversible environmental changes that would occur should the Project be implemented, as well as potential growth-inducing impacts of the proposed Project. Section 5.0 also includes a discussion of the potential environmental effects that were found not be significant during this EIR's Initial Study and NOP process and that, therefore, do not require a detailed evaluation in this EIR.

- **Section 6.0, Project Alternatives,** describes and evaluates alternatives to the proposed Project that could reduce or avoid the Project's adverse environmental effects. CEQA does not require an EIR to consider every conceivable alternative to the Project but rather to consider a reasonable range of alternatives that will foster informed decision making and public participation. A range of three (3) alternatives is presented in Section 6.0.

- **Section 7.0, References,** cites all reference sources used in preparing this EIR and lists the agencies and persons that were consulted in preparing this EIR. Section 7.0 also lists the persons who authored or participated in preparing this EIR.

- **Technical Appendices.** CEQA Guidelines §15147 states that the "information contained in an EIR shall include summarized…information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public," and that the "placement of highly technical and specialized analysis and data in the body of an EIR shall be avoided." Therefore, the detailed technical studies, reports, and supporting documentation that were used in preparing this EIR are bound separately as Technical Appendices. The Technical Appendices are available for review at the City of Moreno Valley Community and Economic Development Department, Planning Division, 14177

Frederick Street, Moreno Valley, California, 92552, during the City's regular business hours or can be requested in electronic form by contacting the City. The individual technical studies, reports, and supporting documentation that comprise the Technical Appendices are as follows:

A: Initial Study, Notice of Preparation, and Written Comments on the NOP
B1: Air Quality Impact Analysis
B2: Mobile Source Health Risk Assessment
C: Biological Resources Report
D: Cultural Resources Report
E: Geotechnical Investigation
F: Greenhouse Gas Analysis
G1: Phase I Environmental Assessment
G2 Addendum to Phase I Environmental Assessment
H1: Hydrology Report
H2: Water Quality Management Plan
I1: Noise Report
I2: Supplemental Construction Noise Analysis
J: Traffic Impact Analysis
K1: Water Supply Assessment
K2: Supplement to Water Supply Assessment
L: Written Correspondence

- **Documents Incorporated by Reference.** CEQA Guidelines §15150 allows for the incorporation "by reference all or portions of another document…[and is] most appropriate for including long, descriptive, or technical materials that provide general background but do not contribute directly to the analysis of a problem at hand." Documents, analyses, and reports that are incorporated into this EIR by reference are listed in Section 7.0, References, of this EIR. The purpose of incorporation by reference is to assist the Lead Agency in limiting the length of an EIR. Where this EIR incorporates a document by reference, the document is identified in the body of the EIR, citing the appropriate section(s) of the incorporated document and describing the relationship between the incorporated part of the referenced document and this EIR.

2.0 ENVIRONMENTAL SETTING

2.1 REGIONAL SETTING AND LOCATION

The 75.05-acre Project site is located in the City of Moreno Valley, in western Riverside County, California. Western Riverside County abuts San Bernardino County to the northeast, Orange County to the west and San Diego County to the south. The site's location in a regional context is shown on Figure 3-1, *Regional Map*, in Section 3.0, Project Description.

Riverside County is located in an urbanizing area of southern California commonly referred to as the Inland Empire. The Inland Empire is an approximate 28,000 square mile region comprising San Bernardino County, Riverside County, and the eastern tip of Los Angeles County. According to the Southern California Association of Governments (SCAG), this region is a fast-growing metropolitan area with large amounts of available land for future growth (SCAG, 2008a, 59-68). According to U.S Census data, the 2010 population of Riverside County was 2,189,641 (U.S. Census Bureau, 2011). SCAG forecast models predict that the population of Riverside County will grow to approximately 3.59 million persons (an approximate 1.4 million person increase) by the Year 2035 (SCAG, 2008b).

Unincorporated areas of Riverside County in the vicinity of the Project site include the unincorporated communities of Woodcrest and Mead Valley to the west and southwest, the unincorporated communities of Reche Canyon and Pigeon Pass to the north, and the unincorporated community of Lakeview and rugged terrain known as the "Badlands" to the east. The Project site is generally located to the north and northeast of the City of Perris and to the southeast of the City of Riverside. Additionally, the March Air Reserve Base (ARB) is located immediately west of the site, west of Heacock Street.

The Project site's relationship to regional aspects of land use, traffic, air quality, hydrology, and geology, among other physical environmental conditions, are identified in Section 4.0, Environmental Analysis, of this EIR.

2.2 LOCAL SETTING AND LOCATION

The Project site is located within the southern portion of the City of Moreno Valley. The property is rectangular-shaped and located immediately east of Heacock Street, approximately 1,300 feet west of Indian Street, and immediately south of Iris Avenue. A majority of the 75.05-acre site is located north of the Perris Valley Channel, with the exception of 1.84 acres of the site located to the southwest of the Channel. Figure 3-2, *Vicinity Map*, in Section 3.0, Project Description, depicts the specific location of the Project site. The property encompasses Assessor Parcel Numbers (APNs) 316-020-032, 316-020-033, 316-020-034, 316-020-035, 316-020-036 and occupies a portion of Section 30, Township 3 South, Range 3 West of the San Bernardino Base and Meridian.

Land within the southwestern portion of the City, including the Project site, is located with an area subject to the City's adopted Moreno Valley Industrial Area Plan (Specific Plan 208). Property in the Area Plan's boundaries was once rural in nature, but over the past decade has been transitioning into an important industrial and economic center for the City, as called for by the Area Plan. Several large-scale industrial and warehouse buildings have been developed and there are several approved development projects in this area that are pending construction. West of the Project site is the March Air Reserve Base (ARB), which was established as a military airport in 1918 and operated as March

Air Force Base until 1996 when it was transitioned to a reserve base. Today, the property contains an airfield, military uses, aviation-related uses, and areas designated for civilian development called the March Inland Port Airport (IPA). Subsection 2.3, below, describes the conditions surrounding the Project site in more detail.

2.3 SURROUNDING LAND USES AND DEVELOPMENT

Figure 2-1, *Surrounding Land Uses and Development*, illustrates the existing land uses and land use designations in the vicinity of the Project site. To the west of the Project site is Heacock Street, beyond which is the March ARB/IPA, which is governed by the March Joint Powers Authority (JPA). The JPA has the same land use authorities over the properties under its jurisdiction as would any city or other municipal government. Interstate 215 (I-215) is located west of the March ARB/IPA, about 1.4 miles west of the Project site.

Immediately abutting the Project site to the east is a rectangular-shaped parcel of vacant land comprising about 72 acres that is approved for industrial development by the City of Moreno Valley (Indian Business Park, PA07-0079, PA07-0080, PA07-121, P07-0093, and PA08-0018). As of June 2011 (when the NOP for this EIR was released for public review), construction of the Indian Business Park had not begun; however, this parcel is expected to be developed as approved, containing 1,560,046 s.f. of building area for business park/light industrial uses. East of the future Indian Business Center (east of Indian Street) are detached single-family residences, two (2) schools (Rainbow Ridge Elementary School and March Middle School) and three (3) churches (Imani Praise Fellowship, New Light Missionary Baptist Church, and the Strong Tower Church of God in Christ). Further to the east (east of Perris Boulevard) are two (2) additional schools (Val Verde Academy and Morning Dove Christian Academy).

To the north of the Project site is Iris Avenue, north of which are two vacant, undeveloped parcels that are approved by the City of Moreno Valley for future development as industrial and residential land uses. The land immediately north of the Project site and Iris Avenue is approved for the development of the Moreno Valley Industrial Park (PA07-0035, PA07-0039, and PA08-0021), which includes the development of an approximately 31-acre site with up to 619,127 square feet of building area for business park/light industrial uses. Immediately north of the approved but yet undeveloped Moreno Valley Industrial Park is a vacant parcel approved for the development of 135 detached, single-family homes (TM34748; located at the southeast corner of Gentian Avenue and Heacock Street). North of Iris Avenue and diagonal from the Project site's northeastern corner is an existing development of detached single-family homes, separated from Iris Avenue by a solid block wall.

Properties to the immediate south and southeast of the Project site are undeveloped and are designated by the Moreno Valley General Plan and the Moreno Valley Industrial Area Plan for business park/light industrial land uses. Two (2) existing industrial/warehouse buildings are located approximately 0.15-mile south of the Project site.

2.4 PLANNING CONTEXT

Provided in this subsection is a description of the Project site's land use designations, as applied by planning documents adopted by the City of Moreno Valley. Refer to Subsection 4.9, Land Use and Planning, for a more thorough discussion of the Project site's planning context, including a discussion of applicable local and regional plans.

2.4.1 CITY OF MORENO VALLEY GENERAL PLAN

The City of Moreno Valley's prevailing planning document is its General Plan, dated July 11, 2006. As depicted on Figure 2-2, *Existing General Plan Land Use Designations*, the City's General Plan designates a majority of the Project site for Business Park/Light Industrial (BP) land uses. The northwest corner of the site is designated for Commercial (C) land uses. The Business Park/Light Industrial land use designation calls for employee intensive uses, including manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities, with a building intensity up to 1.0 floor area ratio (FAR). The Commercial land use designation calls for local retail and service commercial activities, with a building intensity up to 1.0 FAR. A more detailed discussion of the Project's relationship to the General Plan is provided in Subsection 4.9, Land Use and Planning.

2.4.2 MORENO VALLEY INDUSTRIAL AREA PLAN (SPECIFIC PLAN 208)

The Project site is located within the geographic boundaries of the Moreno Valley Industrial Area Plan (Specific Plan 208). As stated in the Area Plan, the Moreno Valley Industrial Area Plan "establishes development regulations and design standards that will ensure quality development which will positively contribute to the City's industrial employment base…" (City of Moreno Valley, 2002 I-4). The Moreno Valley Industrial Area Plan designates a majority of the subject property for Industrial land uses. The northwestern corner of the site is designated as an Industrial Support Area (see Figure 2-3, *Moreno Valley Industrial Area Plan Map*). The Industrial designation provides for a wide range of industrial land uses, while the Industrial Support Area provides for services to support industrial services without affecting the integrity of lands available for industrial uses.

2.4.3 ZONING

The development regulations and design standards contained within the Moreno Valley Industrial Area Plan (Specific Plan 208) supersede the zoning standards contained in the City's Municipal Code. The Area Plan applies the "Industrial (I)" zoning designation to the proposed Project site, which permits a wide range of industrial and industrial/business related support uses. As shown on Figure 2-3, the Moreno Valley Industrial Area Plan also designates the northeastern corner of the Project site as part of a "300' Residential Buffer," which requires the maintenance of a 300-foot buffer between industrial and residential land uses, although permitted uses may encroach into this buffer zone as necessary to maintain the integrity of industrial uses. Refer to the Moreno Valley Industrial Area Plan (Specific Plan 208), Section III, Development Standards and Guidelines, for more information. The Moreno Valley Industrial Area Plan is herein incorporated by reference pursuant to CEQA Guidelines §15150 and is available for review at the physical location indicated in Subsection 7.2, Documents Incorporated by Reference.

2.5 EXISTING PHYSICAL SITE CONDITIONS

Pursuant to CEQA Guidelines §15125, the physical environmental condition for purposes of establishing the setting of an EIR is the environment as it existed at the time the EIR's NOP was released for public review. The NOP for this EIR was released for public review on June 13, 2011, and the following subsections provide a description of the Project site's physical environmental condition as of that approximate date. More information regarding the Project's site's environmental setting is provided in the various subsections of Section 4.0, Environmental Analysis.

2.5.1 LAND USE

The area surrounding the Project site, as described previously in Subsection 2.3, is characterized by undeveloped fields and developed lands. The Project site is not used for agricultural production and is not located in an agricultural area. There are no Williamson Act Contract lands or Agricultural Preserves located on the site or in the surrounding area.

The Project site is undeveloped and routinely maintained (*i.e.*, disked) as required by the Riverside County Fire Marshall to remove vegetation from the site to reduce the risk of fire. A horse track and a small structure or residence were previously located in the northwestern portion of the subject property; however, both of these features have been removed from the site. The former locations of these features are visible on Figure 2-3, *Aerial Photograph*. Also visible on the photograph is a segment of the Perris Valley Channel that extends through the southwestern corner of the Project site. This reach of the Perris Valley Channel consists of a trapezoidal concrete-lined facility near Heacock Street and transitions to an earthen channel approximately 150 feet east of the roadway. The Channel is enclosed by chain-link fencing. The Channel is considered not-a-part of the Project site.

Refer to Subsection 4.9, Land Use and Planning, for a more thorough discussion of the Project site's existing land use setting.

2.5.2 TOPOGRAPHY AND AESTHETICS

The Project site is generally flat, with the exception of an earthen mound and a small berm located in the northern portion of the property. Topographic elevations range from a high point of approximately 1,502 feet above mean sea level (AMSL) to a low point of approximately 1,488 feet AMSL, resulting in a maximum topographic relief of approximately 14 feet. Aesthetically, the Project site is characterized as a flat, vacant parcel. There are no unique topographic or aesthetic features present on the property. Figure 2-5, *Topographic Map*, depicts the Project site's existing topographic conditions.

Refer to Subsection 4.1, Aesthetics, for a more thorough discussion of the Project site's existing topographic and aesthetic setting.

2.5.3 GEOLOGY

As documented in the Project's geotechnical report (*Technical Appendix E* to this EIR), the Project site is located within the Peninsular Range Geomorphic Province, which is a prominent natural geomorphic province that extends from the Santa Monica Mountains approximately 900 miles south to the tip of Baja California, Mexico, and is bounded to the east by the Colorado Desert. The Peninsular Range is characterized by steep, elongated ranges and valleys that generally trend northwesterly. More specifically, the Project site is situated within the Perris Block unit, which is an eroded mass of Cretaceous and older crystalline and metamorphic rock.

Based on geological investigations of the Project site conducted by NorCal Engineering (refer to *Technical Appendix E* of this EIR), the earth materials on the site consist of topsoil and alluvium, underlain by bedrock. Topsoil generally consists of dry to damp and loose silty sands to sandy silts with intermixed organics (i.e., roots of surface vegetation) to an average depth of 12 to 16 inches. Beneath the topsoil there is undisturbed alluvium consisting of medium dense/stiff and damp to moist

silty and clayey sands to sandy silts. No groundwater was encountered during subsurface soil borings conducted by NorCal. Based on information available from Eastern Municipal Water District's (EMWD's) West San Jacinto Groundwater Basin Management Plan 2009 Annual Report, groundwater is known to occur at depths of approximately 44 feet below the existing ground surface (EMWD 2010).

The Project site is not located within an active Alquist-Priolo earthquake zone or a City-designated fault hazard zone, meaning that no active faults are mapped or known to exist on the Project site or in the immediate surrounding area (*Technical Appendix E* 5-6). The nearest known active fault is the San Jacinto Valley section of the San Jacinto Fault zone (Casa Loma Fault) located approximately eight (8) miles east of the Project site.

Refer to Subsection 4.5, Geology and Soils, for a more thorough discussion of the Project site's existing geologic setting.

2.5.4 HYDROLOGY

The Project site is located in the Santa Ana River watershed, which drains a 2,650 square-mile area and is the principal surface flow water body within the region (SAWPA, 2010 Ch. 3). The San Jacinto River drains the area in the vicinity of the Project site. It starts in the San Jacinto Mountains (approximately 30 miles southeast of the proposed Project site), runs westerly through the City of Canyon Lake, and typically discharges into Lake Elsinore. In wet years, the San Jacinto River will overflow the lake and connect with the Santa Ana River through the Temescal Wash (SAWPA, 2010 Ch. 3).

As documented in the Project's hydrology report (*Technical Appendix H1* to this EIR) and water quality management plan (*Technical Appendix H2* to this EIR), the Perris Valley Storm Drain Channel traverses the southwestern corner of the Project site and conveys drainage towards the southeast and south towards the San Jacinto River. Under existing conditions, the Perris Valley Channel splits the Project site into two separate drainage areas. The majority of the Project site is located north of the Channel and flows are directed in a southerly direction, with flows discharging at a point approximately 260 feet west of the southwestern corner of the Project site. The portion of the Project site located southwest of the Channel generally drains towards the southeast, and discharges at the southeast corner of the property. Flows from both portions of the site are conveyed to the Perris Valley Channel. Flows are then conveyed by the Perris Valley Channel to the San Jacinto River.

Refer to Subsection 4.8, Hydrology and Water Quality, for a more thorough discussion of the Project's site existing hydrologic setting.

2.5.5 AIR QUALITY AND CLIMATE

The Project site is located in the 6,745-square-mile South Coast Air Basin (SCAB), which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SCAB is within the jurisdiction of South Coast Air Quality Management District (SCAQMD), the agency charged with bringing air quality in the SCAB into conformity with federal and state air quality standards. The SCAB is currently not in attainment of state and/or federal standards established for Ozone (O_3) one-hour and eight-hour, particulate

matter (PM_{10} and $PM_{2.5}$), and Nitrogen Oxides (NO_X), and also not in attainment for Lead (Pb) in Los Angeles County (CARB, 2011).

As documented in the Project's air quality report (*Technical Appendix B1* to this EIR), although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. More than 90% of the SCAB's rainfall occurs from November through April. Temperatures during the year range from an average minimum of 47°F in January to over 100°F maximum in the summer. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year.

Refer to Subsection 4.2, Air Quality, and Subsection 4.6, Greenhouse Gas Emissions, for a more thorough discussion of the Project's site existing air quality and climate setting.

2.5.6 BIOLOGICAL RESOURCES

The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on the conservation of sensitive plant and animal species and their associated habitats in western Riverside County. The City of Moreno Valley approved the MSHCP on January 13, 2004. The MSHCP identifies a Criteria Area, in which habitat conservation efforts are targeted. The Project site is not located with the Criteria Area, as shown on Figure 2-6, *MSHCP Criteria Areas*. As such, the site is not targeted for open space conservation as part of the regional plan for habitat conservation (Riverside County, 2003c, Vol. 1 Ch. 3).

According to biological field surveys conducted on the Project site in 2011 (refer to *Technical Appendix C*), the property is comprised of disturbed/developed land and ruderal vegetation. One special-status plant (smooth tarplant, *Centromadia pungens* ssp. *laevis*) was detected, as well as two special-status animals (the western burrowing owl (*Athene cunicularia hypugaea*) and the California horned lark (*Eremophila alpestris actia*)). Adjacent properties surrounding the site are comprised of undeveloped disked fields with ruderal vegetation and developed lands.

Refer to Subsection 4.3, Biological Resources, for a more thorough discussion of the Project's site existing biological setting.

2.5.7 CULTURAL RESOURCES

According to Figure 5.10-3 of the Moreno Valley General Plan Final EIR, mountainous areas in the eastern portion of the City, known as the Badlands have the greatest potential for encountering paleontological resources in Moreno Valley (City of Moreno Valley, 2006b). The Project site is not located in close proximity to the Badlands and is characterized by the City's General Plan as having a low potential for containing paleontological resource deposits. There are no known paleontological resources located on or beneath the surface of the Project site, and their potential for discovery is low.

From an archaeological perspective, prehistory within the Project area is defined by six cultural periods: Early Man Period, Paleo-Indian Period, Pinto Period, Gypsum Period, Saratoga Springs Period, and Shoshonean Period. Each of these cultural periods is discussed in Subsection 4.4,

Cultural Resources. In summary, human habitation of southern California dates back to approximately 13,000 years ago. Over a series of cultural periods, the area transitioned from a hunting and gathering society, to settlements of small groups of people, to large occupations near natural water sources, to formations of distinct ethnographic groups. Research indicates that the Project site is located within the traditional cultural territory of the Cahuilla Indians (Jones & Stokes 2008 10), although correspondence received by the City of Moreno Valley from Luiseno tribes as part of the Project's SB18 Native American consultation process contends that the Project site is within the traditional use area of Luiseno tribes (Ontiveros, 2011a; Hoover, 2011b). Although no archaeological resources are known to be present on the Project site, resources have the potential to exist below the surface and be discovered during the Project's ground disturbing construction activities (Jones & Stokes 2008 15).

Historically, the Project site is not known to have historical significance to the region. The Perris Valley Storm Drain Channel is the only structure that is present on the site (Horowitz, 2011). It was built sometime between 1945 and 1967 (likely in the 1950s when this type of reclamation work was common) and is a typical earth and concrete lined drainage channel. It possesses no distinctive features and is not identified as being eligible for the California Register of Historic Resources.

Refer to Subsection 4.4, Cultural Resources, for a more thorough discussion of the Project's site existing cultural setting.

2.5.8 TRANSPORTATION

I-215, Interstate 15 (I-15), State Route 60 (SR-60) and State Route 91 (SR-91) are major vehicular travel routes in the region of the Project site. The Project site is located approximately 1.5 miles east of I-215, about midway between the Cactus Avenue and Harley Knox Boulevard interchanges (which are depicted on EIR Figure 4.11-12). From the Cactus Avenue interchange, I-215 connects with I-15 approximately 24 roadway miles to the south and connects with SR-60 approximately 2.5 roadway miles to the north.

The Project site is located immediately south of Iris Avenue, east of Heacock Street, and about 1,300 feet west of Indian Street. Vehicular movement in the vicinity of the Project site is primarily composed of passenger vehicles. A review of traffic count data revealed that trucks represent between 0% and 12% of the overall vehicle mix at various intersections around the Project site (Urban Crossroads 2011e 45). The City of Moreno Valley's designated truck route includes Cactus Avenue, Frederick Street, Heacock Street, San Michele Road, Nandina Avenue, and Indian Street south of San Michele Road.

Regarding other forms of transportation, field observations indicated that there is nominal pedestrian and bicycle activity in the area (Urban Crossroads 2011e 45). The Riverside Transit Agency (RTA) operates bus services along Cactus Avenue, Indian Street, John F. Kennedy Drive, Iris Avenue and Krameria Avenue through various routes (Routes 11, 19 and 20). There is currently no commuter rail service in the City of Moreno Valley, but a route is planned along the west side of I-215 called the Perris Valley Line, with a planned station at Alessandro Boulevard, approximately 4.6 roadway miles from the Project site (RCTC, n.d.). East of the Project site is the March ARB/IPA, at which the airport is used by military and government aircraft with limited use by civilian aircraft. Although air cargo service was discontinued in 2008, the March ARB/IPA Joint Land Use Study (March JPA, 2010 Ch. 2), discloses the potential for increased general aviation use.

Refer to Subsection 4.11, Transportation, for a more thorough discussion of the Project's site existing transportation setting.

2.5.9 NOISE

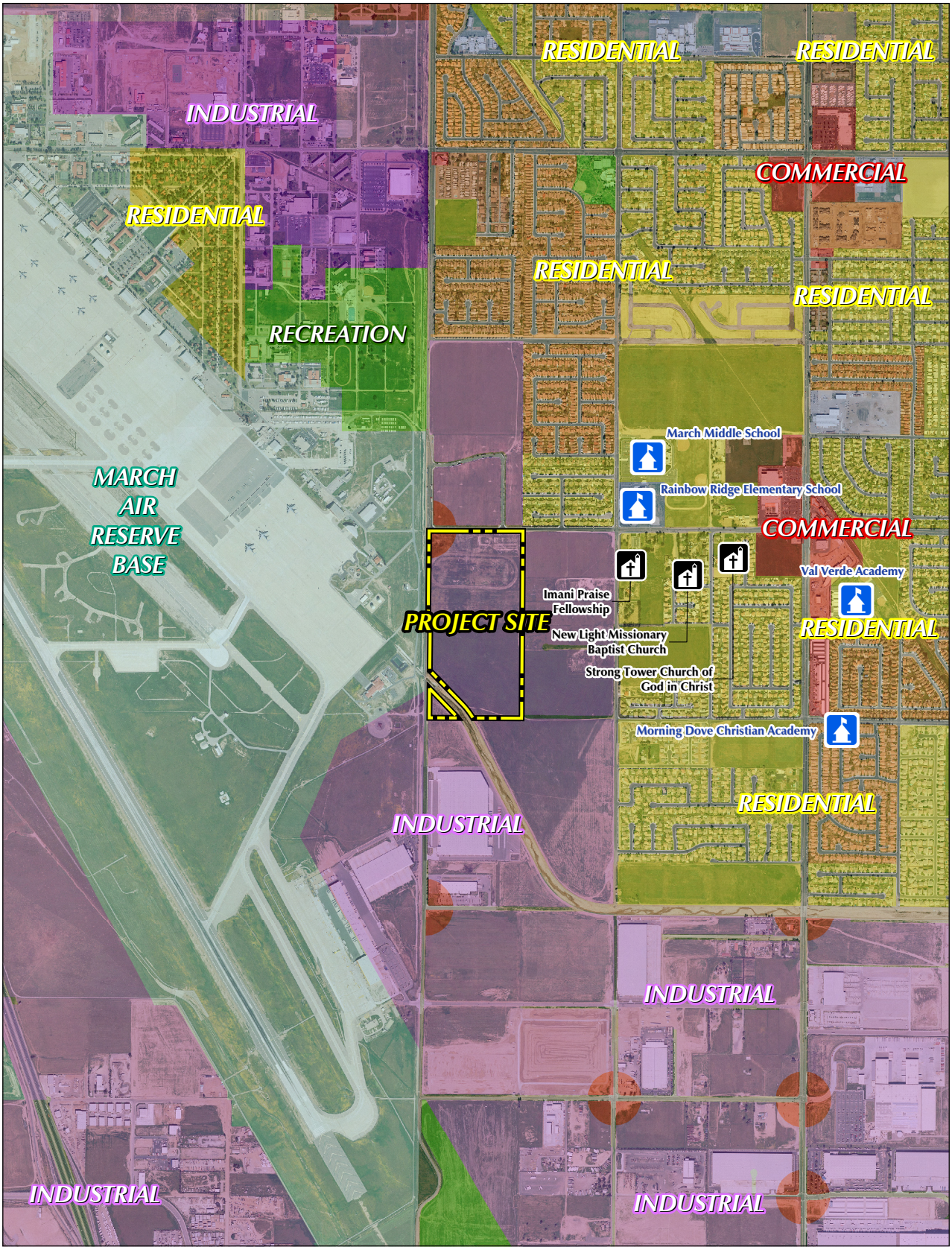
Primary sources of noise in the Project vicinity include vehicle noise, aircraft noise, and noise from construction and operational activities associated with development. To determine the existing acoustical setting of the Project site, 24-hour measurements were taken in the Project study area by Urban Crossroads, Inc. at three (3) locations on June 15 and 16, 2011. These locations included: 1) along Indian Avenue approximately 1,350 feet east of the Project site; 2) north of Iris Avenue approximately 100 feet from the northeast corner of the Project site; and 3) approximately 650 feet south of the southwest corner of the Project site in the flight path of March AFB. Measured hourly noise levels ranged from 52.7 to 77.3 decibels (dBA Leq), resulting in Community Noise Equivalent Levels (CNELs) ranging from 64.7 CNEL to 70.5 CNEL (Urban Crossroads 2011c Ch. 5).

Refer to Subsection 4.8, Noise, for a more thorough discussion of the Project's site existing noise setting.

2.5.10 UTILITIES AND SERVICE SYSTEMS

The Project site is located in the service area of Eastern Municipal Water District (EMWD) for domestic water and sewer service. EMWD manages the domestic water supply and delivery service within its 555 square mile service area, including the City of Moreno Valley, all or portions of six other cities, and a portion of unincorporated Riverside County. As documented in EMWD's 2010 Urban Water Management Plan, EMWD has four sources of water supply: imported water from the Metropolitan Water District (MWD), recycled water, local groundwater production, and desalted groundwater (EMWD, 2011 Ch. 3). EMWD has an adopted Water Shortage Contingency Plan (EMWD Ordinance 117.2) that applies regulations and restrictions on the delivery of and consumption of water during water shortages. Regarding sewer collection and treatment, EMWD collects and treats all of the wastewater collected in its service area to tertiary standards. Treated wastewater is disposed of by means of customer sales, discharge to Temescal Creek, and through percolation and evaporation while stored in EMWD ponds (EMWD, 2011, Ch. 3). Solid waste collection and disposal in the Project area is conducted by Waste Management of the Inland Empire, a division of Waste Management, Inc. Landfills that have the potential of receiving solid waste from the Project site include the El Sobrante Landfill, the Badlands Sanitary Landfill, and the Lamb Canyon Sanitary Landfill (Ross 2011).

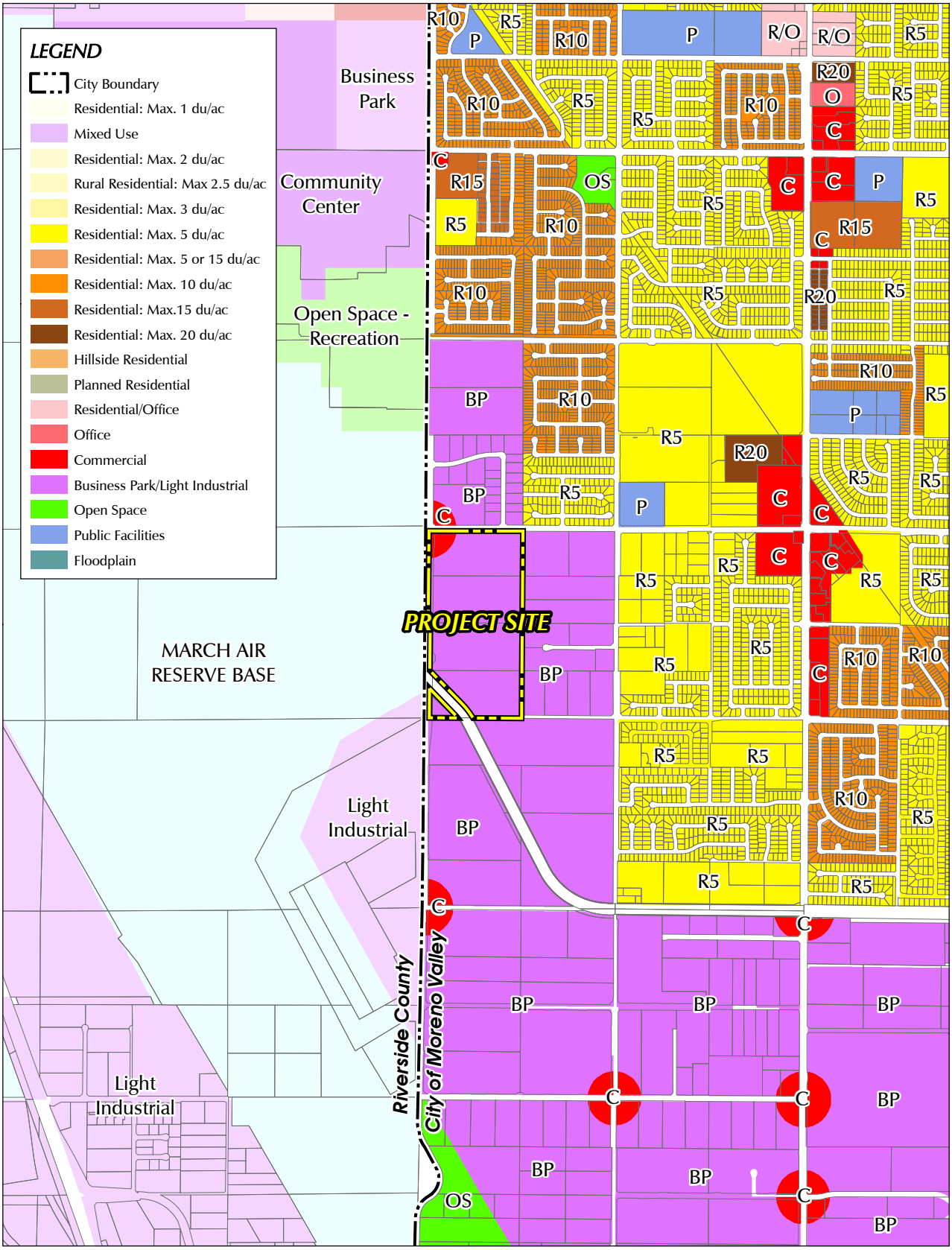
Refer to Subsection 4.12, Utilities and Service Systems, for a more thorough discussion of the Project's site existing setting in relation to utilities and public services.



Source: RCTLMA (2011), Eagle Aerial (2008)

Figure 2-1

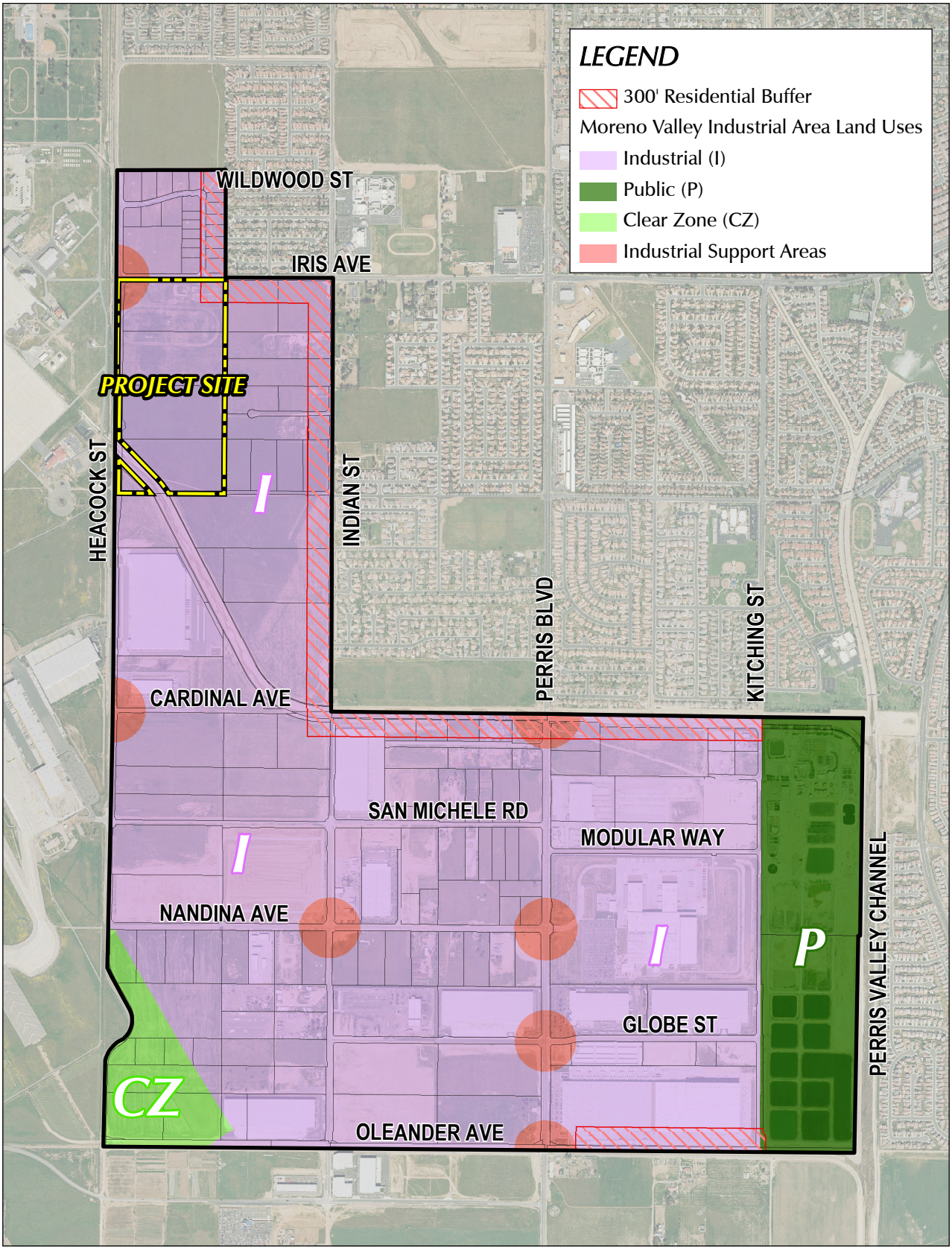
Surrounding Land Uses and Development



Source: RCTLMA (2011), City of Moreno Valley

Figure 2-2

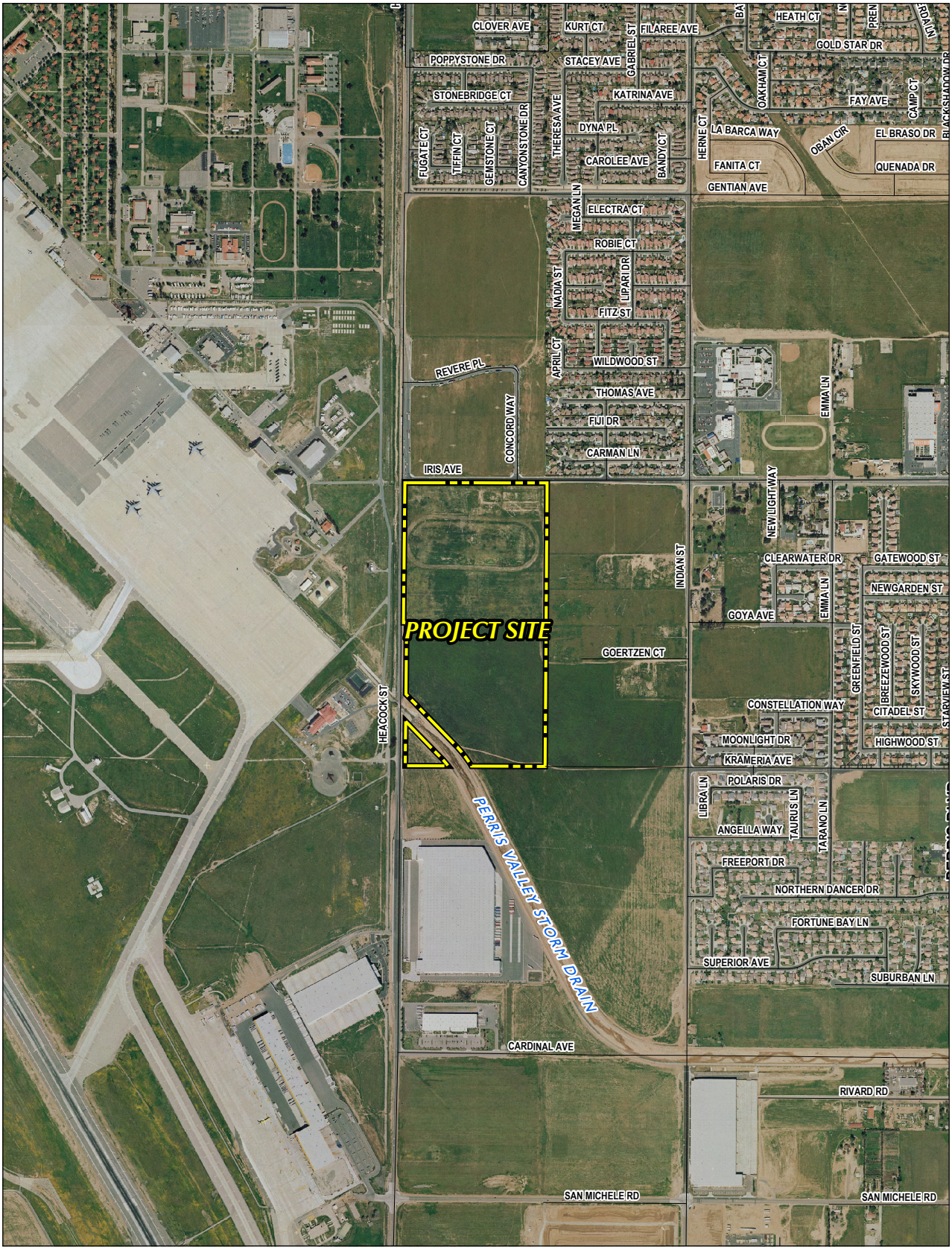
Existing General Plan Land Use Designations



Source: RCTLMA (2011), Eagle Aerial (2008), Moreno Valley Industrial Area Plan

Figure 2-3

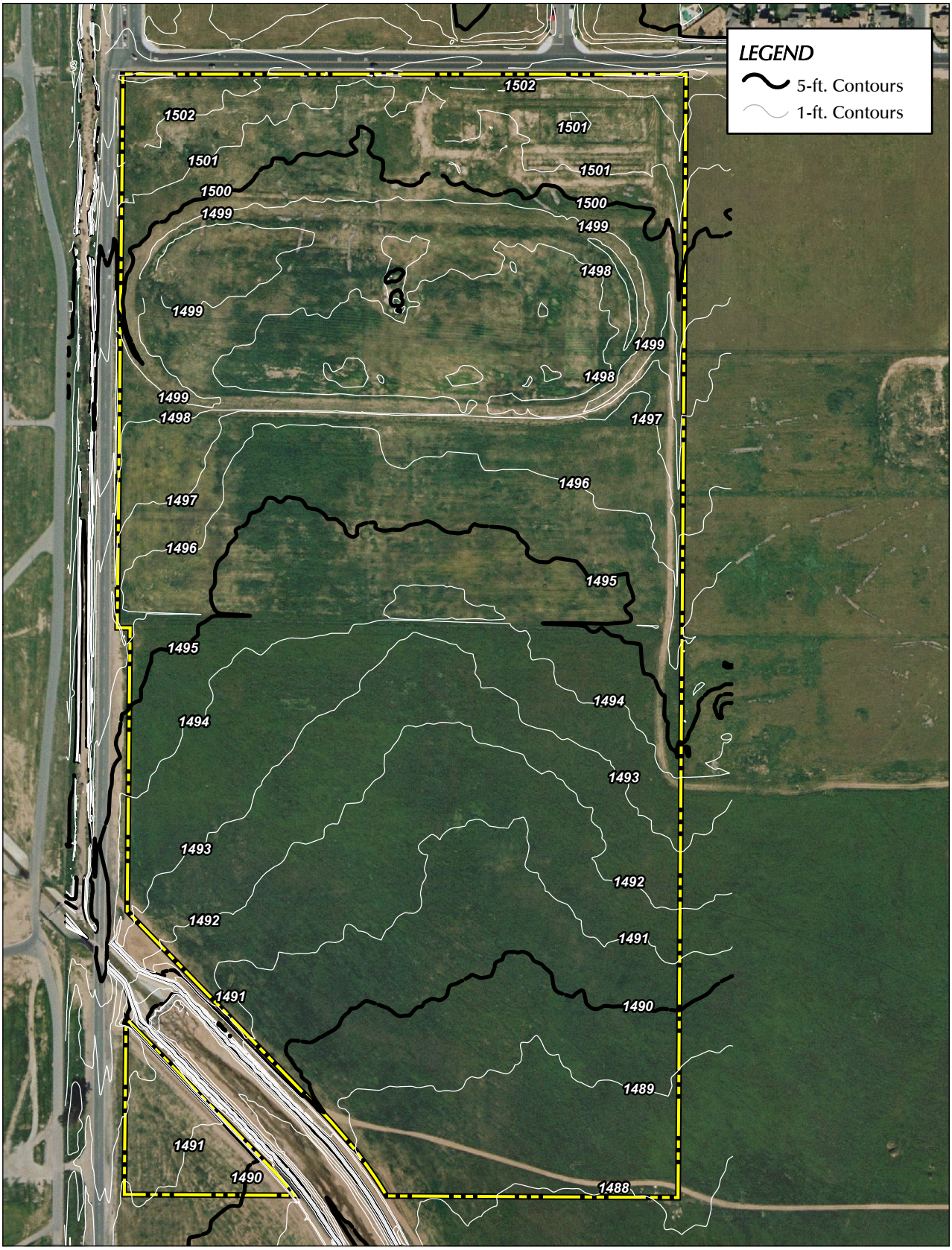
Moreno Valley Industrial Area Plan Map



Source: RCTLMA (2011), Eagle Aerial (2008)

Figure 2-4

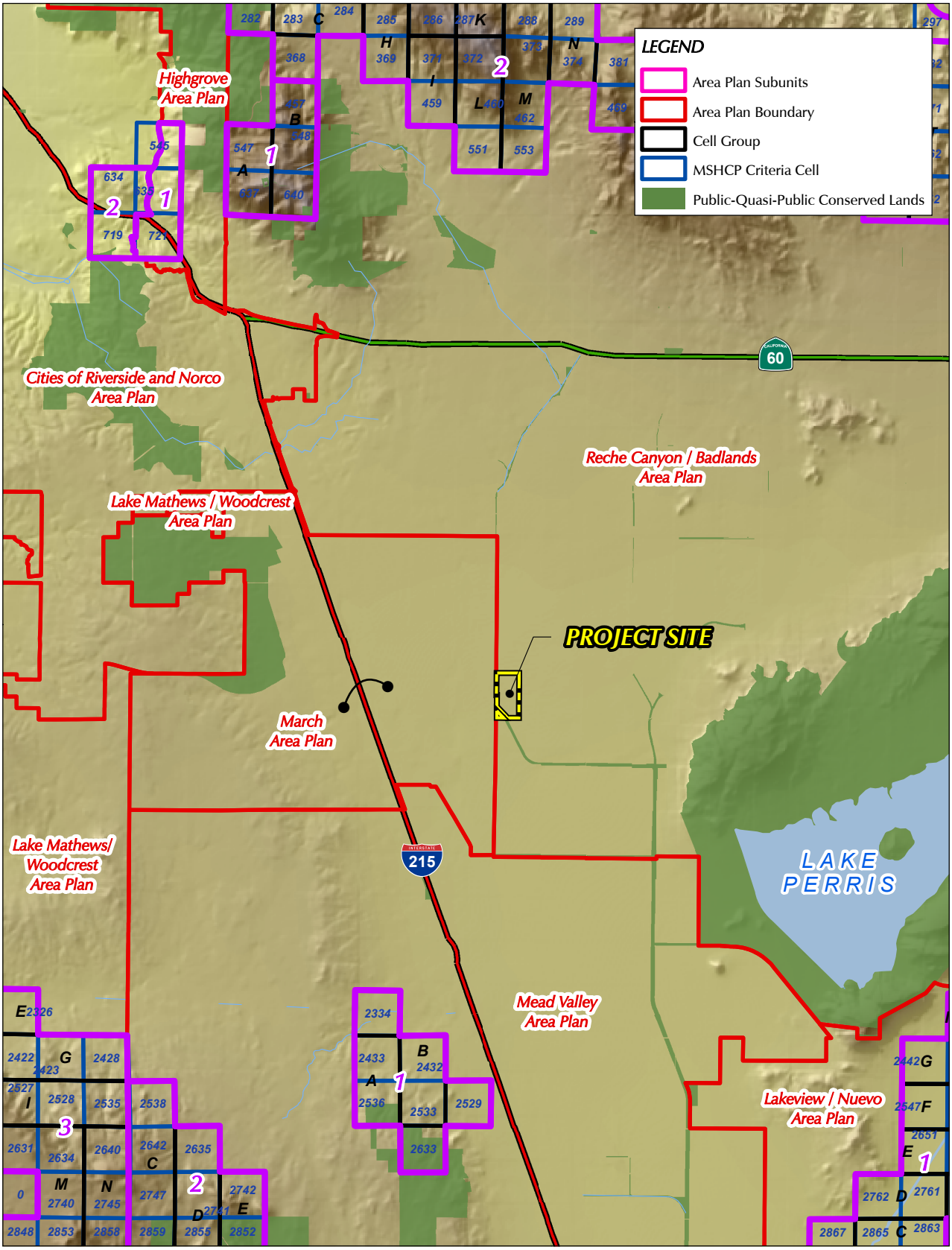
Aerial Photograph



Source: RCTLMA (2011), Eagle Aerial (2008), Theines Eng.

Figure 2-5

Topographic Map



Source: RCTLMA (2011), RCIP

Figure 2-6

MSHCP Criteria Areas

3.0 PROJECT DESCRIPTION

This section provides all of the information required by CEQA Guidelines §15124, including a description of the Project's precise location and boundaries; a statement of the Project's objectives; a description of the Project's technical, economic, and environmental characteristics; and a description of the intended uses of this EIR including a list of the government agencies that are expected to use this EIR in their decision-making processes, a list of the permits and approvals that are required to implement the Project, and a list of related environmental review and consultation requirements .

This EIR (P11-005) analyzes the physical environmental effects associated with all components of the Project, including planning, construction, and ongoing operation. Governmental approvals requested from the City of Moreno Valley to implement the Project include a General Plan Amendment (PA11-0001), Specific Plan Amendment (P11-004), Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan (PA11-0002), and four (4) individual Building Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006). These applications, as submitted to the City of Moreno Valley by the Project Applicant, are herein incorporated by reference pursuant to CEQA Guidelines §15150 and are available for review at the physical location indicated in Subsection 7.2, Documents Incorporated by Reference. All other discretionary and administrative approvals that would be required of the City of Moreno Valley or other governmental agencies are also within the scope of the Project analyzed in this EIR.

In summary, the March Business Center would provide 1,484,407 square feet (s.f.) of building space on the subject property, as well as surface parking areas and drive aisles, loading docks, roadway improvements, utility infrastructure, landscaping, water quality/detention basins, and other site improvements. A complete description of the Project is provided in this Section 3.0.

3.1 PROJECT LOCATION

The Project site consists of 75.05 acres in the southern portion of the City of Moreno Valley, Riverside County, California (see Figure 3-1, *Regional Map*). From a regional perspective, the Project site is located to the north of the City of Perris, to the southeast of the City of Riverside, and to the south, east, and west of unincorporated areas in Riverside County. Regional access to the site is provided via I-215, which is located approximately 1.4 miles to the west of the site, and SR-60, which is located approximately 3.6 miles to the north of the site. Refer to Subsection 2.1 for more information about the Project's regional setting.

At the local scale, the Project site is located immediately south of Iris Avenue, east of Heacock Street, and about 1,300 feet west of Indian Avenue, as illustrated on Figure 3-2, *Vicinity Map*, and Figure 3-3, *USGS Topographic Map*. As shown on these exhibits, a majority of the site is located immediately north of the Perris Valley Channel, with the exception of approximately 1.84 acres located southwest of the Channel. Refer to Subsection 2.2 for more information about the Project's local setting.

3.2 STATEMENT OF OBJECTIVES

The primary objective of the proposed Project is to develop an industrial business center on the Project site in conformance with the land use designations applied to the property by City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208), as well as

comply to the greatest feasible extent with other applicable City of Moreno Valley standards, codes, and policies. The following is a list of specific objectives sought by the proposed Project.

A. To develop an industrial business center in conformance with the land use designations applied to the property by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208).

B. To develop a business center that can accommodate light industrial and warehouse distribution tenants within close proximity to regional transportation routes.

C. To develop a business center that is financially feasible to construct and operate.

D. To make efficient use of a property by achieving a minimum Project-wide floor area ratio (FAR) of 0.50.

E. To attract new businesses and jobs to the City of Moreno Valley, thereby providing a more equal jobs/housing balance both in the City and in Riverside County and reducing the need for members of the existing local workforce to commute outside the area for employment.

F. To modify the planned alignment of Krameria Avenue to enable efficient development of the Project site and improve circulation and public safety within the area of the Moreno Valley Industrial Area Plan.

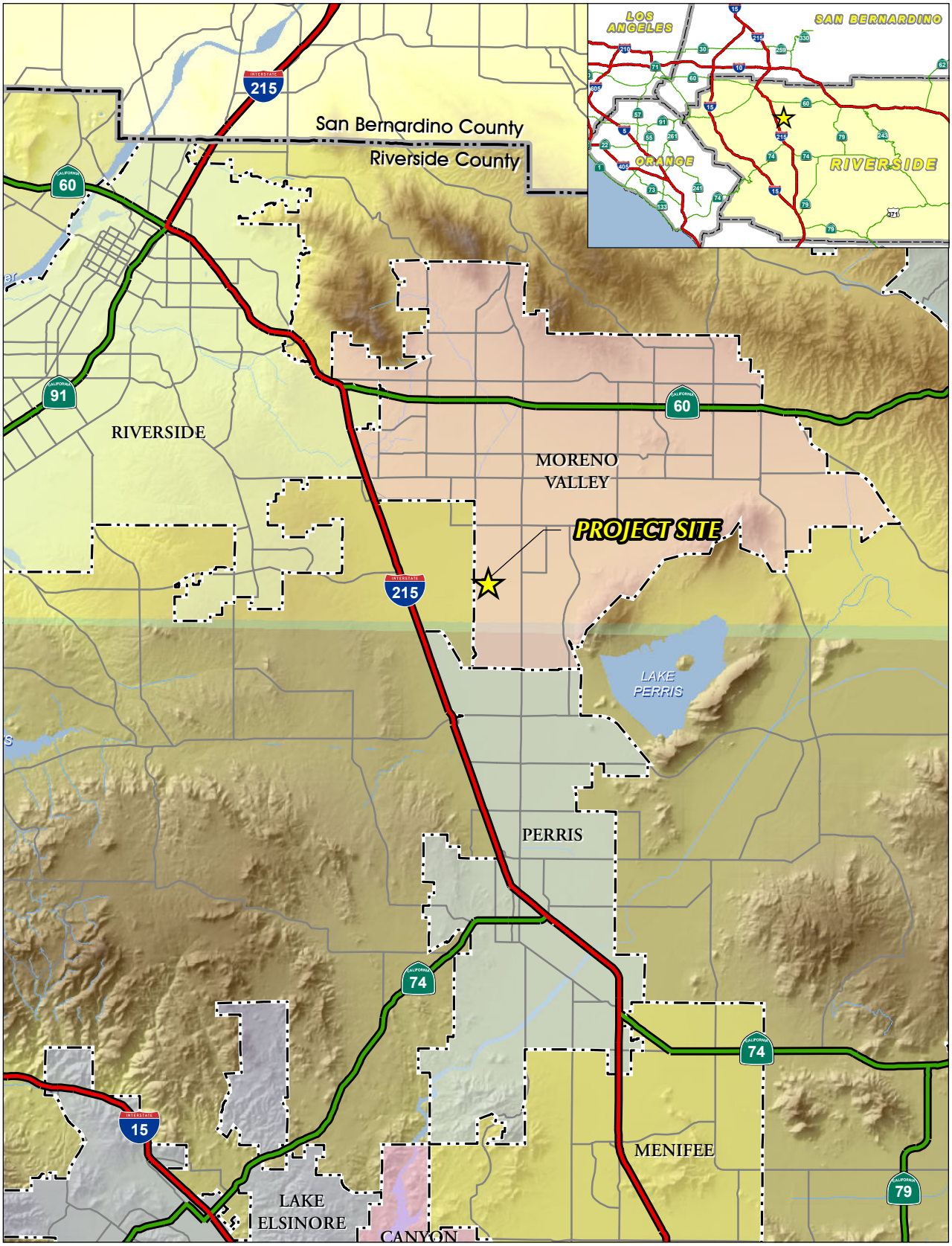
G. To develop a business center with an architectural design and operational characteristics that are complementary with existing and planned development in the immediate vicinity.

H. To construct a business center that incorporates energy efficiency and low water use principles in order to increase environmental quality during construction and operation.

3.3 PROJECT'S COMPONENT PARTS

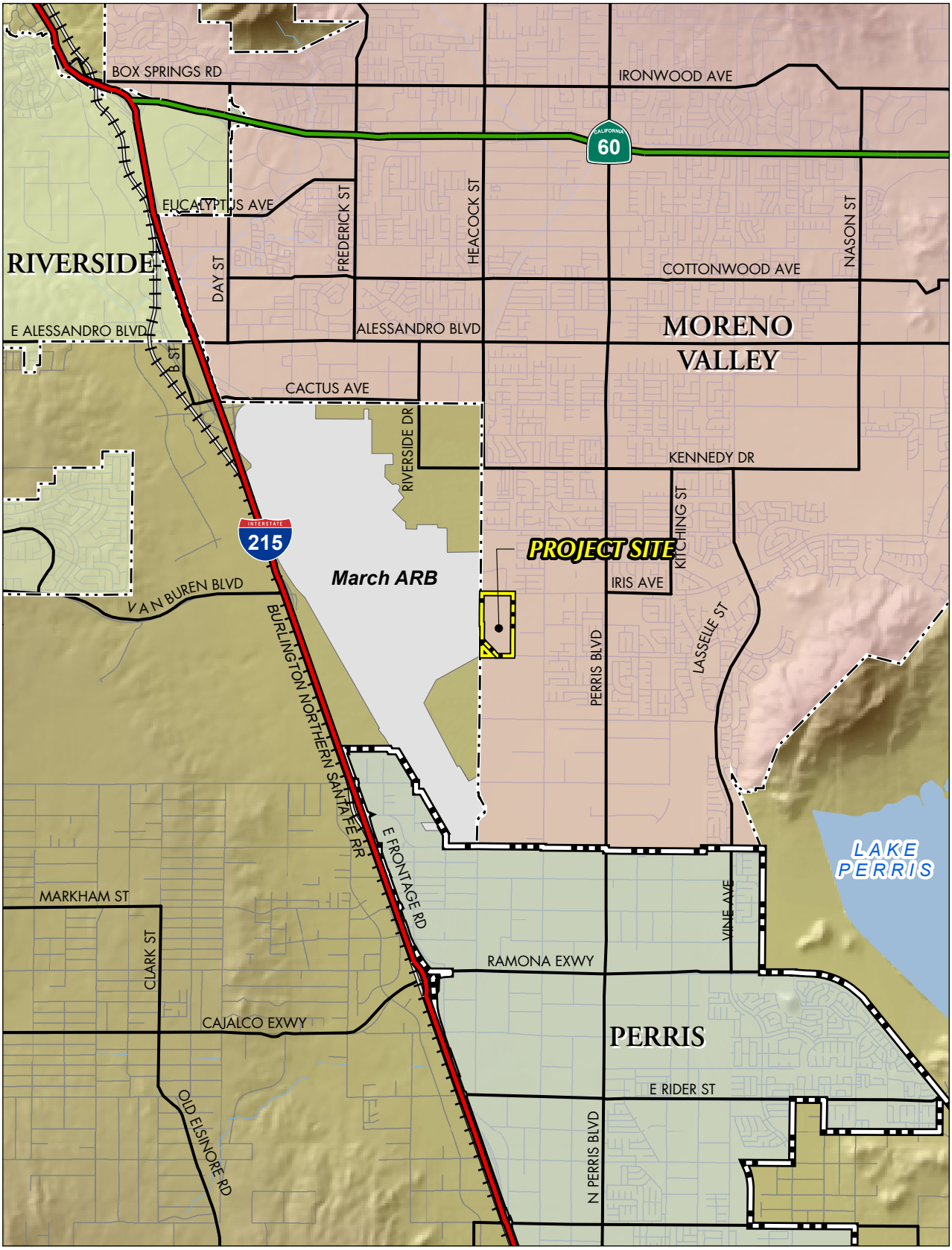
The Project consists of a proposal to develop a 75.05-acre property with business center land uses. The principal discretionary actions required of the City of Moreno Valley to implement the proposed Project include the adoption of a General Plan Amendment (PA11-0001) and Specific Plan Amendment (P11-004), approval of Tentative Parcel Map No. 35879 (PA11-0007), a Master Plot Plan (PA11-0002) and four (4) individual Building Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006), and certification of this EIR (P11-005). Additional discretionary and administrative actions that would be necessary to implement the proposed Project are listed in Table 3-4, *Matrix of Project Approvals/Permits*, at the end of this EIR Section.

A detailed description of the proposed discretionary approvals associated with the Project is provided in the following subsections.



Source: RCTLMA (2011)

Figure 3-1
Regional Map



Source: RCTLMA (2011)

0 3,000 6,000 Feet

Figure 3-2
Vicinity Map

Source: USGS

0 1,000 2,000 Feet

Figure 3-3
USGS Topographic Map

3.3.1 TENTATIVE PARCEL MAP NO. 35879

A. General Description

Tentative Parcel Map No. 35879 (TPM No. 35879) proposes to subdivide the 75.05-acre property into four (4) parcels, as depicted on Figure 3-4, *Tentative Parcel Map No. 35879*. In addition, TPM No. 35879 designates areas of public road dedication and identifies the size and location of needed water, sewer, drainage, and utility infrastructure. Developable parcels would range in size from 1.89 gross acres (1.54 net acres) to 53.43 gross acres (47.67 net acres). A summary of the parcel sizes proposed by TPM No. 35879 is provided on Table 3-1, *TPM No. 35879 Statistical Summary*.

Table 3-1 TPM No. 35879 Statistical Summary

PARCEL NUMBER	GROSS ACREAGE	NET ACREAGE
1	53.43	47.70
2	13.10	11.76
3	6.63	5.93
4	1.89	1.54
Total	**75.05***	**66.93**

***The Project site includes 3.38 acres of land located within public right-of-ways owned by the City of Moreno Valley for Heacock Street and Iris Avenue.
Source: TPM No. 35879 prepared by Thienes Engineering, May 23, 2011.

B. Public Roadway Dedications and Improvements

The existing public street network servicing and abutting the Project site consists of Heacock Street to the west and Iris Avenue to the north. The Project site includes 3.38 acres of land owned by the City of Moreno Valley that is dedicated public right-of-way for Heacock Street and Iris Avenue. As part of TPM No. 35879, additional land would be dedicated to the City of Moreno Valley for the widening of Iris Avenue. Additionally, the Project would dedicate land area within the Project site for the construction of Krameria Avenue and Cosmos Street. Public roadway dedications and improvements that are proposed as part of the Project are described below and depicted on Figure 3-5, *Circulation Plan*.

- **Heacock Street.** Heacock Street is a north-south oriented roadway located along the Project site's western boundary. Under existing conditions, this segment of Heacock Street is constructed as a two-lane roadway within a 118.5-foot right-of-way. The proposed Project would improve Heacock Street from Iris Avenue to the north side of the bridge over the Perris Valley Channel and from the south side of the bridge to the southern Project boundary to its ultimate full-width section as an Arterial roadway. The proposed Project would improve Heacock Street as will be required by the final conditions of approval for the proposed Project and applicable City of Moreno Valley standards.

- **Iris Avenue.** Iris Avenue is an east-west oriented roadway located along the northern boundary of the Project site. Under existing conditions, this segment of Iris Avenue is constructed as a two-lane road with an 80-foot wide right-of-way. The proposed Project would widen the Iris Avenue public right-of-way along the northern Project frontage (south side of the street) by an additional 20 feet to provide the ultimate half-width of the Arterial roadways will be required by the final conditions of approval for the proposed Project and applicable City of Moreno Valley standards. The Project would offer a sidewalk easement to

the City for the portion of the sidewalk that extends outside of the public right-of-way along the Project's frontage.

- **Krameria Avenue.** Krameria Avenue would be constructed as a north-south roadway from the southeast corner of the Project site to an intersection with proposed Cosmos Street, and as an east-west roadway between Heacock Street and proposed Cosmos Street. As described in further detail in EIR Subsections 3.3.3 and 3.3.4, a General Plan Amendment and a Specific Plan Amendment would be required for the proposed configuration of Krameria Avenue. The east-west segment of Krameria Avenue between Heacock Street and proposed Cosmos Street would be improved to the full-width standard of an Industrial Collector roadway as part of the Project. The north-south segment of Krameria Avenue between Cosmos Street and the southeast corner of the Project site would be improved as an Industrial Collector. The Project would dedicate land to the City of Moreno Valley to accommodate Krameria Avenue. The proposed Project would improve Krameria Avenue as will be required by the final conditions of approval for the proposed Project and applicable City of Moreno Valley standards.

- **Cosmos Street.** Cosmos Street is a proposed on-site north-south roadway that would provide secondary access to the eastern portion of the Project site. Cosmos Street would begin approximately 870 feet north of the Project's southeastern boundary and would extend north approximately 1,485 feet, where it is designed to terminate as a cul-de-sac internal to the Project site and abutting the eastern boundary of the subject property (as depicted on Figure 3-4). Cosmos Street is proposed as an Industrial Collector roadway. The proposed Project would dedicate and improve Cosmos Street as will be required by the final conditions of approval for the proposed Project and applicable City of Moreno Valley standards.

A complete description of other Project-required transportation improvements is provided in EIR Section 4.11, *Transportation and Traffic*.

C. *Public Right-of-Way Vacations*

Planned public rights-of-way (or portions thereof) that were previously offered to a city, county, or other government agency but that are no longer needed for public purposes can be "vacated" by the government body. As part of the Project, two (2) roadway rights-of-way that were previously offered to the City of Moreno Valley but that were never accepted by the City for public use are proposed to be vacated as part of TPM No. 35879. These rights-of-way are also known by the term "paper streets" because their alignments exist only on maps, with no physical attributes constructed on the landscape.

As shown on Figure 3-6, *Street Vacations*, the Krameria Avenue "paper street" located along the Project's southern boundary is proposed to be vacated. In addition, an un-named cul-de-sac "paper street" that extends approximately 1,000 feet east from Heacock Street and traverses proposed Parcels 2 and 3 of proposed TPM No. 35879 would be vacated. Proposed street vacations would occur as part of the Final Map for TPM No. 35879.

D. Water and Wastewater Conveyance Facilities

❑ Water Service

Water service would be provided to the Project by EMWD. Under pre-development conditions, water service is available to the Project site via 8-inch line and 18-inch main installed beneath Iris Avenue and a 20-inch main installed beneath Heacock Street. As depicted on Figure 3-7, *Conceptual Water Plan*, the Project proposes to construct a 12-inch public water main beneath Cosmos Street, which would connect to the existing 18-inch water main beneath Iris Avenue. In addition, the Project proposes two connection points to the existing 20-inch water line beneath Heacock Street. All proposed water facilities would be designed in accordance with EMWD standards and would require review and approval by EMWD prior to their installation. The locations of proposed fire hydrants also are shown on Figure 3-7, which require review and approval by the Riverside County Fire Department prior to installation. Additional information about the Project's water system can be found in EIR Subsection 4.12, Utility and Service Systems. Refer to EIR Subsection 3.3.5, Project Construction and Operational Characteristics, for a discussion of the Project's projected daily potable water demand.

❑ Wastewater Service

Wastewater conveyance and treatment service to the Project site would be provided by EMWD. Under pre-development conditions, wastewater service is available to the Project site via an 8-inch sewer main installed beneath Iris Avenue and a 30-inch sewer main installed beneath Heacock Street (the line beneath Heacock Street diverts to the southeast at the Perris Valley Channel and runs parallel to the channel along the southern Project boundary).

As illustrated on Figure 3-7, *Conceptual Sewer Plan*, the proposed Project would install a 10-inch public sewer main beneath the east-west segment of Krameria Avenue that is proposed to be constructed through the Project site. This sewer main would collect wastewater flows from Parcels 1, 2, and 3 by gravity flow. A second 10-inch sewer main would branch off from the line beneath Krameria Avenue along the boundary between Parcels 2 and 3 and would convey wastewater flows to the existing 30-inch sewer main at the southern boundary of the Project site (north of the Perris Valley Channel).

In order to provide wastewater service for Parcel 4, the Project would install a new 8-inch sewer line beneath the existing developed Heacock Street right-of-way. The new sewer main beneath Heacock Street would travel from the southwestern corner of the Project site south to Cardinal Avenue (approximately 1,400 feet in length) where it would connect to an existing sewer main with adequate available capacity to serve the Project. The wastewater conveyance lines proposed to be installed off site would be installed beneath existing paved public roadways rights-of-ways. All proposed sewer facilities would be designed in accordance with EMWD standards and would require review and approval by EMWD prior to their installation. Additional information about the Project's wastewater collection facilities is provided in Subsection 4.12, Utility and Service Systems.

E. Drainage Plan

The Project's drainage system would consist of underground storm drain pipes and detention basins installed on the property. The system is designed to collect and treat stormwater runoff and discharge treated flows into the Perris Valley Channel, a regional flood control facility. The drainage system for the Project is depicted on Figure 3-9, *Drainage Plan*. Stormwater flows from Parcels 1-4

would be captured and routed to one of four (4) detention basins. Two (2) detention basins would be located on Parcel 1, one (1) detention basin would be located on Parcel 3, and one (1) detention basin would be located on Parcel 4. In addition to stormwater drainage functions, these basins also would provide water quality functions. The detention basins would be designed to treat and temporarily detain stormwater runoff to ensure that post-development discharge from the site is less than, or equal to, pre-development conditions. Drainage flows would be conveyed from the on-site detention basins to the ultimate discharge points at the Perris Valley Channel via a network of storm drain conduits that would vary in size. Runoff flows originating from on-site public streets would be captured by a system of storm drains installed within Iris Avenue, Heacock Street, Krameria Avenue, and Cosmos Street and would be routed to the Perris Valley Channel via a network of storm drain conduits that would vary in size.

Off-site improvements would be required at the Project's outlets to the Perris Valley Channel to ensure adequate operation of the proposed drainage system. Proposed off-site improvements within the Perris Valley Channel would include the construction of a head wall and flap gate at the Project's two discharge points. In addition, rip-rap would be installed at the Project's outlets to the Perris Valley Channel to preclude scour and erosion.

The Riverside County Flood Control and Water Conservation District (RCFCWCD) is responsible for approving all proposed storm drain improvements to ensure property facility sizing and construction, as well as consistency with the applicable local drainage plan. Additional information about the Project's drainage facilities is provided in Subsection 4.8, Hydrology and Water Quality.

F. Earthwork and Grading

As shown on Figure 3-9, *Conceptual Grading Plan*, earthwork and grading would occur over the entire 75.05-acre Project site. No area of the site would be left undisturbed. According to TPM No. 35879, earthwork and grading activities would occur in one phase and would result in approximately 111,030 cubic yards of cut and 159,957 cubic yards of fill. Depths of grading would extend to approximately 3.5 feet, except in the areas of proposed detention basins, which would be excavated to depths of approximately ten feet. Although the earthwork quantities are imbalanced by 48,927 cubic yards, no import of earth materials is anticipated due to the requirement to over-excavate and compact on-site soils (Thienes Engineering, 2011). The Project site is relatively flat and proposed grading would not create manufactured slopes except around the proposed detention basins. As shown on TPM No. 35879, the manufactured slopes that would be created around the on-site detention basins would be up to 10 feet in height with a maximum gradient of 4:1.

3.3.2 PLOT PLANS PA11-0002, -0003, 0004, -0005, AND -0006

One (1) Master Plot Plan and four (4) individual Building Plot Plans are proposed as part of the Project. The Master Plot Plan (PA11-0002) establishes a common architectural and landscape development concept for the entire Project, depicts the location of proposed circulation facilities, and depicts the relationship between proposed on-site structures, as illustrated on Figure 3-11, *March Business Center Master Plot Plan*. The individual Building Plot Plans provide site plans, including a detailed architectural and landscape design for Parcel 1 (PA11-0003), Parcel 2 (PA11-0004), Parcel 3 (PA11-0005), and Parcel 4 (PA11-0006). Plot plans for Parcels 1 through 4 are presented on Figure 3-12 through Figure 3-15.

TENTATIVE PARCEL MAP NO. 35879

ASSESSORS PARCEL NUMBERS: 316-020-032, 316-020-033, 316-020-034, 316-020-035, 316-020-036
REAL PROPERTY IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

"MARCH BUSINESS CENTER"

PREPARED FOR:
WESTERN REALCO
500 NEWPORT CENTER DR. #630
NEWPORT BEACH, CA 92660
PHONE: (949) 720-3787
FAX: (949) 720-3790

OWNER:
CSIP WR MORENO VALLEY, LLC
c/o WESTERN REALCO
500 NEWPORT CENTER DR. #630
NEWPORT BEACH, CA 92660
PHONE: (949) 720-3787
FAX: (949) 720-3790

SCALE:1"=100'

TANGENT TABLE:

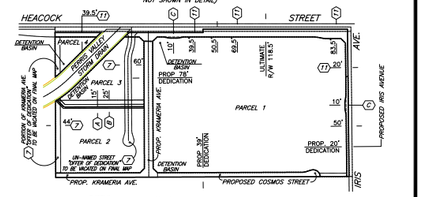
NO.	DISTANCE	BEARING
T1	30.00'	N 89°58'59" W
T2	56.35'	S 45°09'06" W
T3	167.17'	N 89°57'54" E
T4	41.23'	S 78°50'54" E
T5	60.00'	N 89°57'54" E
T6	41.23'	N 78°35'07" E
T7	20.00'	N 00°02'54" E
T8	50.01'	N 16°56'51" W
T9	55.16'	N 45°15'26" E
T10	56.10'	S 42°21'54" E
T11	24.41'	S 17°31'03" W
T12	122.98'	N 00°26'39" E
T13	172.16'	S 00°26'39" W

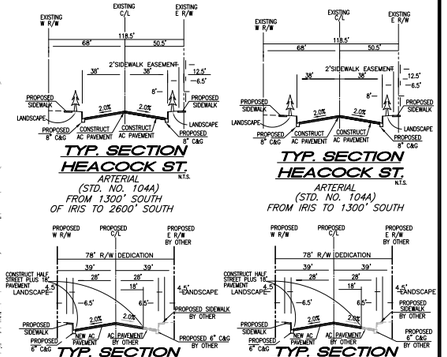
TANGENT TABLE:

NO.	DISTANCE	BEARING
T14	78.00'	S 00°37'45" W
T15	55.94'	S 43°53'13" W
T16	131.09'	N 00°26'39" E
T17	56.10'	S 44°18'43" E
T18	55.16'	S 44°44'34" E
T19	39.06'	S 89°44'23" E
T20	39.06'	S 00°15'33" W
T21	56.10'	S 44°18'43" E
T22	30.00'	N 00°15'33" E
T23	50.06'	N 89°50'07" W
T24	57.20'	N 00°26'39" E
T25	41.23'	N 11°43'39" E
T26	60.00'	S 00°26'39" W
T27	41.23'	N 10°50'21" W

VICINITY MAP
NOT TO SCALE

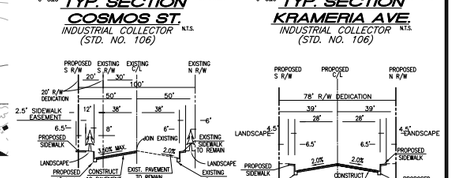
EASEMENT DETAIL
NOT TO SCALE
(FOR CLARITY PURPOSES PROP. SIDEWALK EASEMENT NOT SHOWN IN DETAIL)





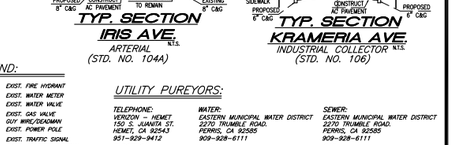
TYP. SECTION
HEACOCK ST.
ARTERIAL
(STD. NO. 104A)
FROM 1300' SOUTH OF IRIS TO 2600' SOUTH
N.T.S.

TYP. SECTION
HEACOCK ST.
ARTERIAL
(STD. NO. 104A)
FROM IRIS TO 1300' SOUTH
N.T.S.



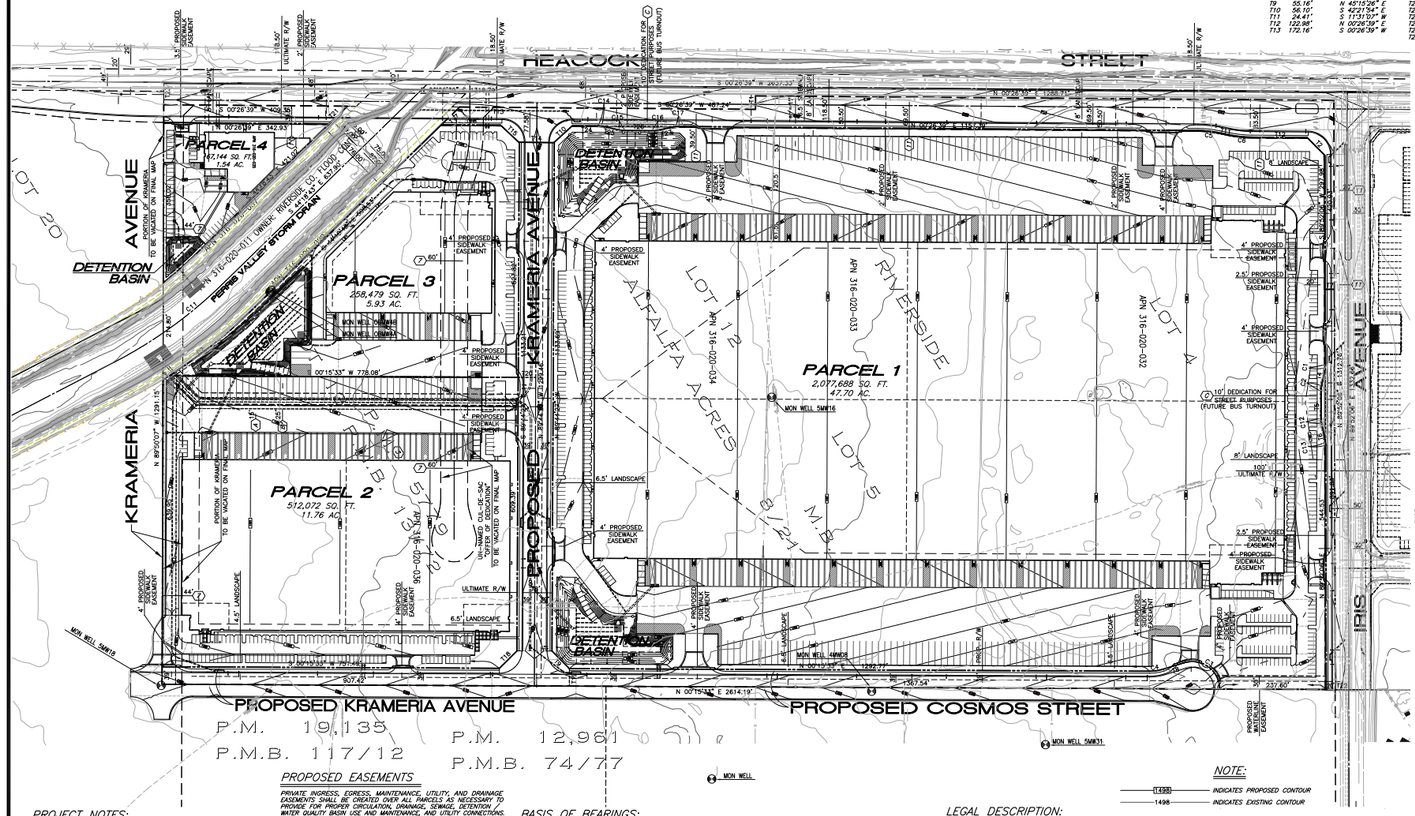
TYP. SECTION
COSMOS ST.
INDUSTRIAL COLLECTOR
(STD. NO. 106)
N.T.S.

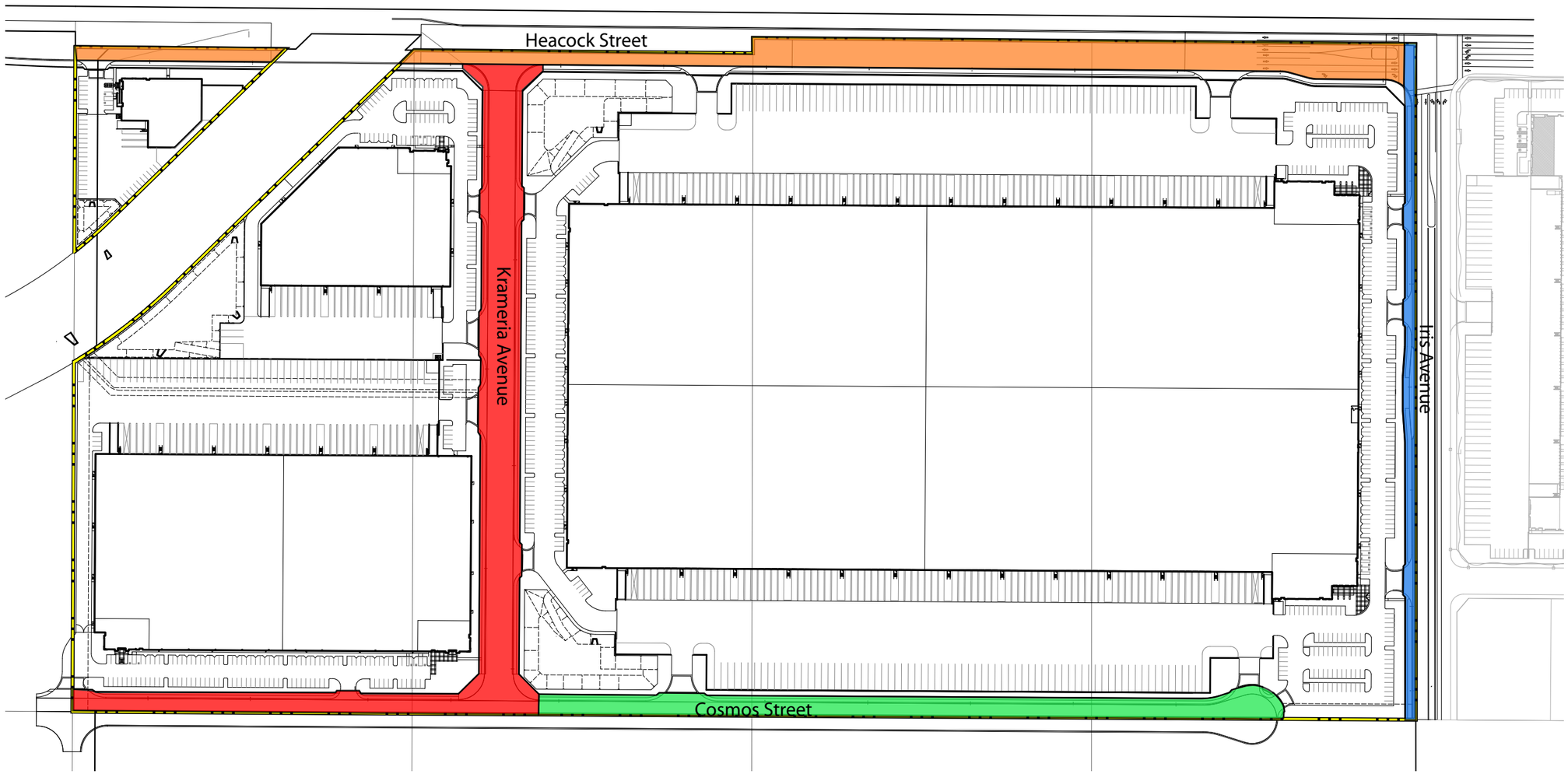
TYP. SECTION
KRAMERIA AVE.
INDUSTRIAL COLLECTOR
(STD. NO. 106)
N.T.S.



TYP. SECTION
IRIS AVE.
ARTERIAL
(STD. NO. 104A)
N.T.S.

TYP. SECTION
KRAMERIA AVE.
INDUSTRIAL COLLECTOR
(STD. NO. 106)
N.T.S.


HEACOCK STREET
PROPOSED KRAMERIA AVENUE
PROPOSED COSMOS STREET
PROPOSED IRIS AVENUE
KRAMERIA AVENUE
LOT 20
DETENTION BASIN
PARCEL 4
1.54 AC.
PARCEL 3
258,479 SQ. FT.
5.93 AC.
PARCEL 2
512,072 SQ. FT.
11.76 AC.
PARCEL 1
2,027,688 SQ. FT.
47.70 AC.
LOT 12
APN 316-020-034
ALFALFA ACRES
LOT 5
M.B. 9/121
RIVERSIDE
APN 316-020-033
LOT A
APN 316-020-032
PERRIS VALLEY STORM DRAIN
MON. WELL SMW16
MON. WELL SMW31
MON. WELL
IRIS
PROPOSED SIDEWALK EASEMENT
PROPOSED STREET DEDICATION
PROPOSED LANDSCAPE EASEMENT
PROPOSED WATERLINE EASEMENT
PROPOSED SEWER EASEMENT
PROPOSED STORM DRAIN EASEMENT
PROPOSED ACCESS EASEMENT
PROPOSED STREET EASEMENT
PROPOSED WATER EASEMENT
PROPOSED ELECTRICAL EASEMENT
PROPOSED TEMPORARY TURNAROUND EASEMENT
PROPOSED TEMPORARY ACCESS EASEMENT
PROPOSED TEMPORARY SLOPE EASEMENT
PROPOSED TEMPORARY DRAINAGE EASEMENT
PROPOSED TEMPORARY CONSTRUCTION EASEMENT
PROPOSED TEMPORARY SEWER EASEMENT
PROPOSED TEMPORARY WATER EASEMENT
PROPOSED TEMPORARY ELECTRICAL EASEMENT
PROPOSED TEMPORARY STORM DRAIN

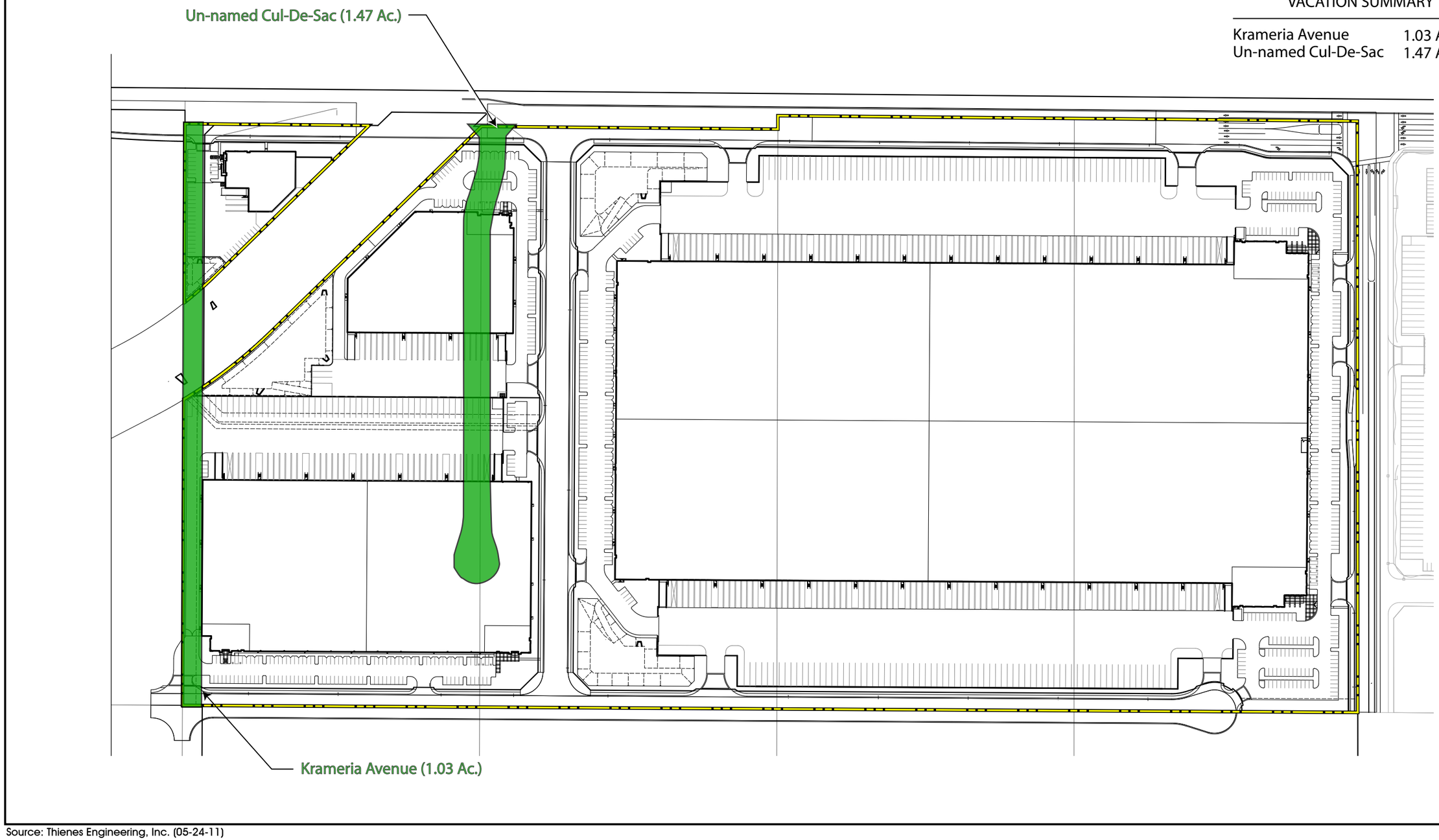


Note: Roadway cross-section improvements will be conditioned as part of approval of TPM 35879

Source: Thienes Engineering, Inc. (05-24-11)

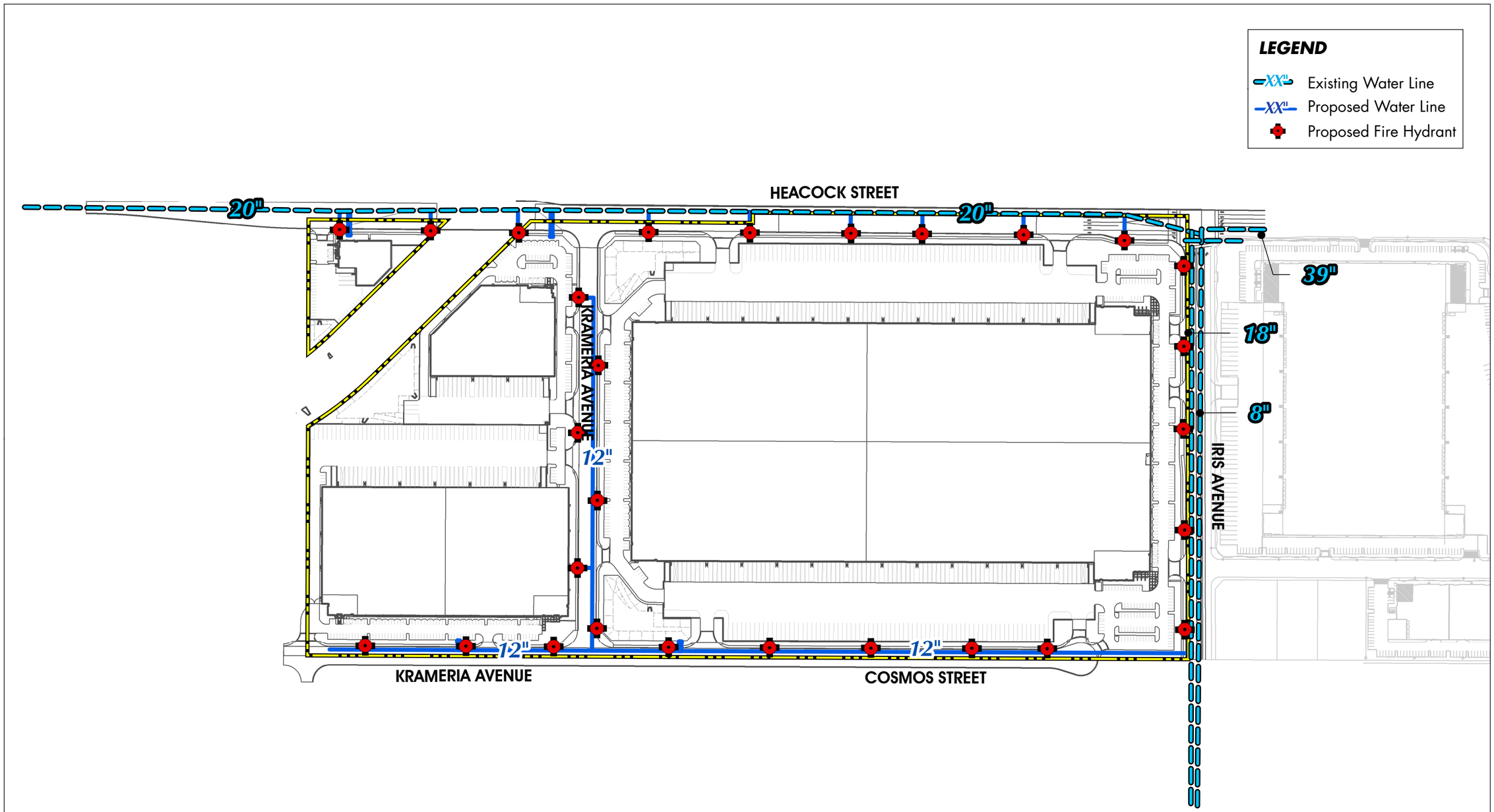
0 50 100 200 300 Feet

FIGURE 3-5
Circulation Plan



Source: Thienes Engineering, Inc. (05-24-11)

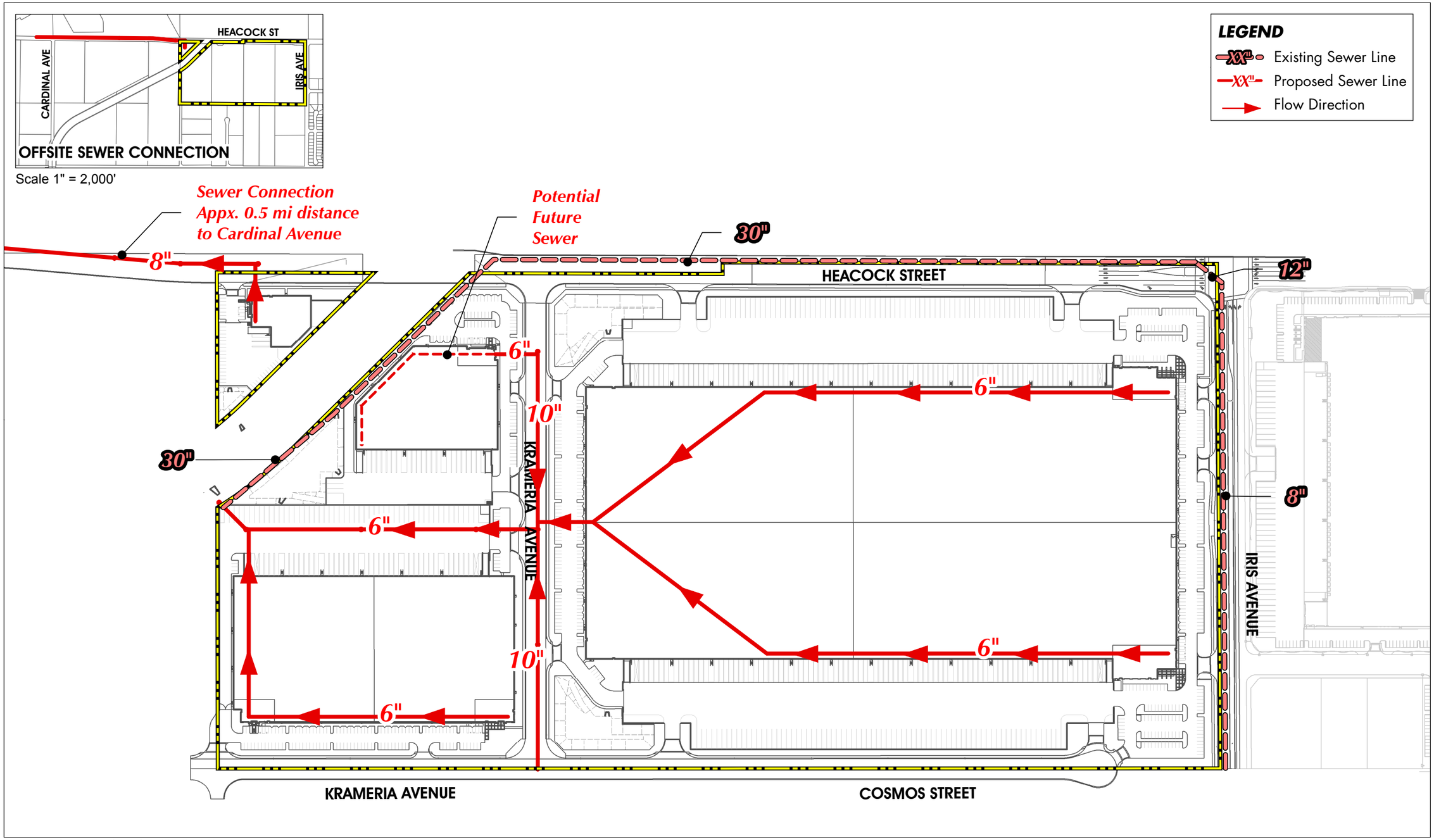
FIGURE 3-6
Street Vacations



Source: Thienes Engineering (05-24-11)

0 125 250 Feet

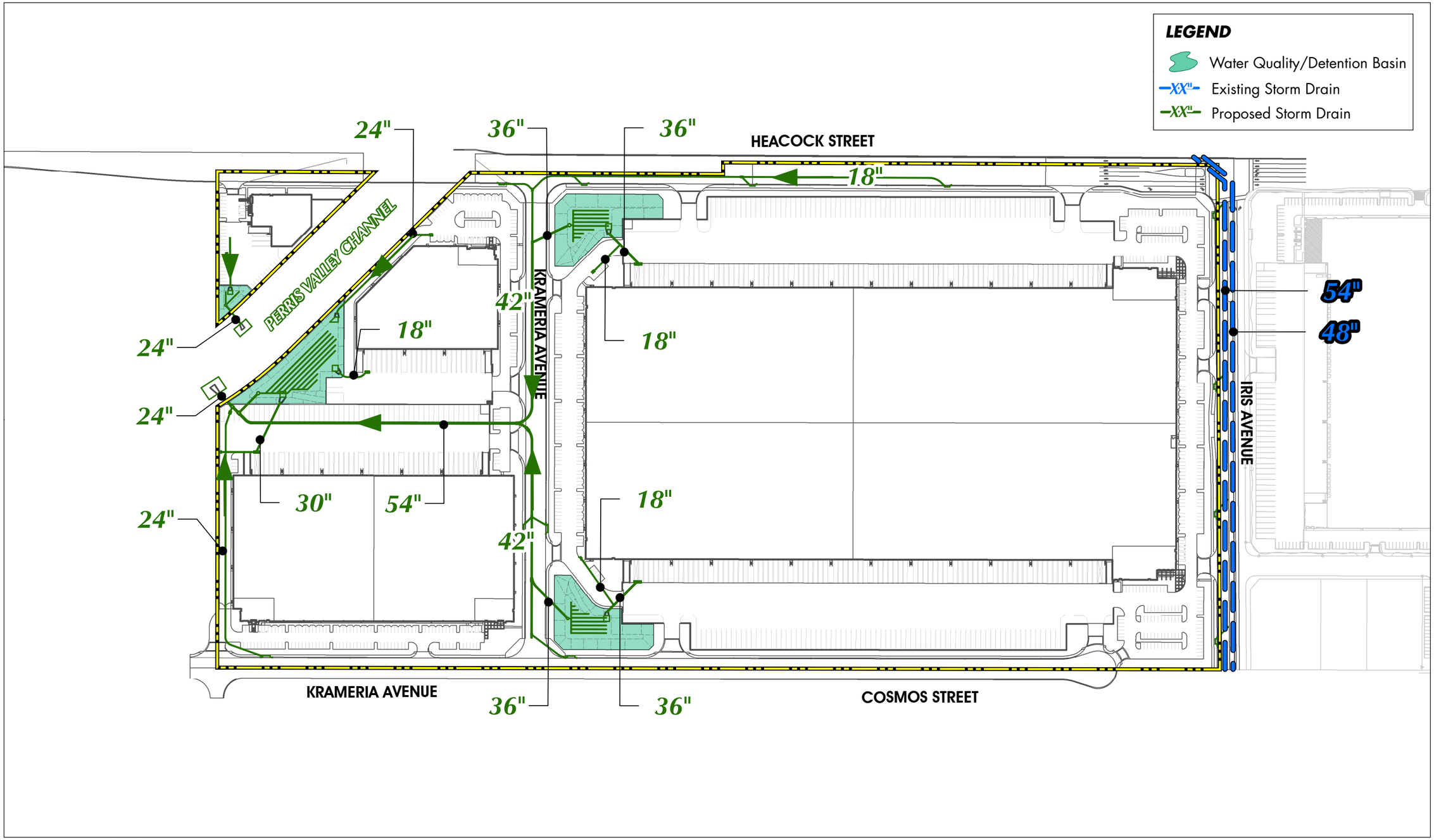
Figure 3-7
Conceptual Water Plan



Source: Thienes Engineering (05-24-11)

Figure 3-8
Conceptual Sewer Plan

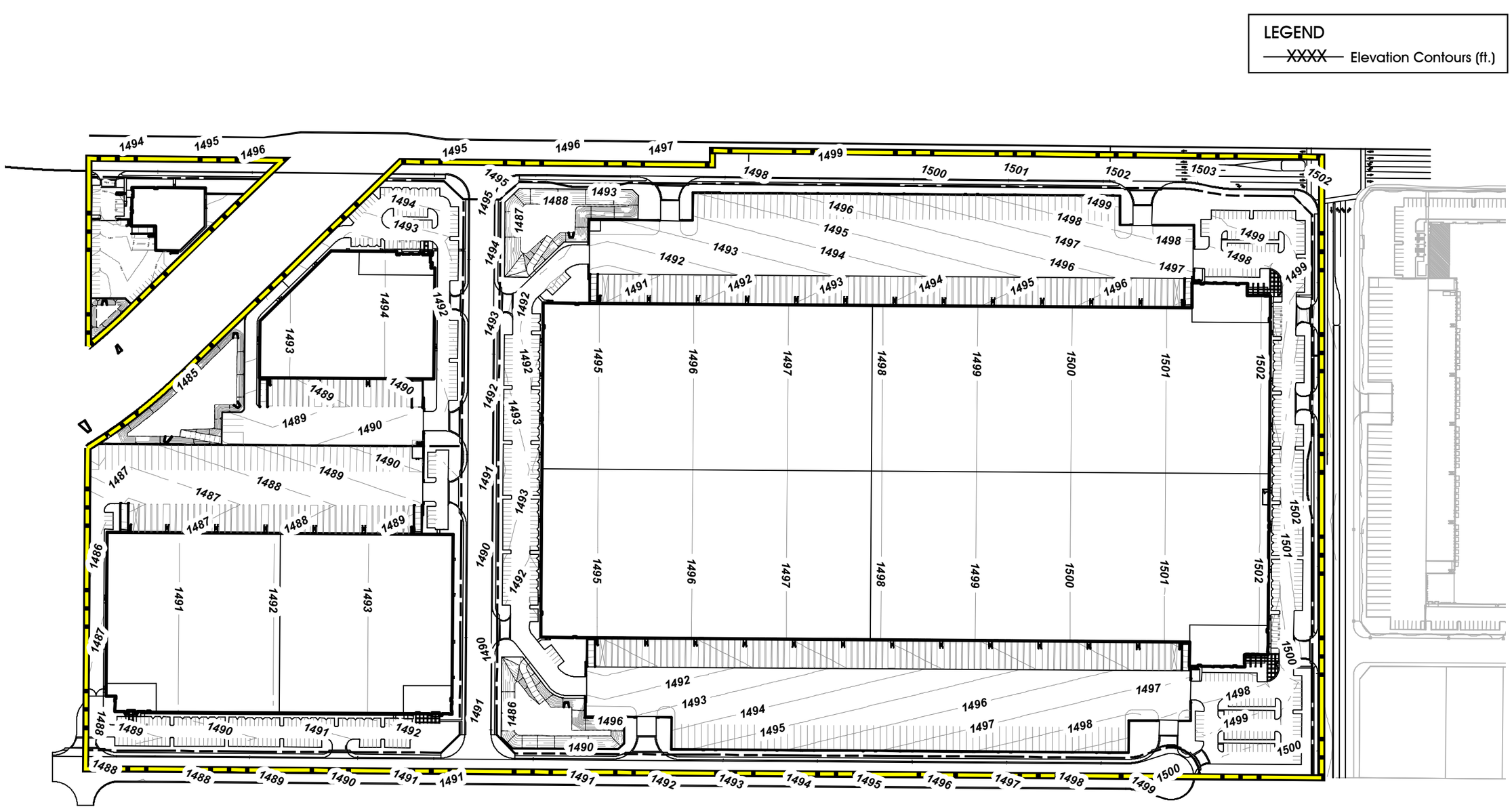
-975-



Source: Thienes Engineering (05-24-11)

0 125 250 Feet

Figure 3-9
Conceptual Drainage Plan



Source: Theines Engineering, Inc. (05-24-11)

0 25 50 100 200 feet

FIGURE 3-10
Conceptual Grading Plan

B. General Description

As shown on Figure 3-11, four (4) buildings are proposed to be constructed on the Project site. Table 3-2, *March Business Center Statistical Summary*, summarizes the net parcel size, total building area, and floor area ratio (FAR) of each proposed parcel and building. The buildings are designed to range in size from approximately 16,732 s.f. to 1,103,003 s.f. with a minimum FAR of approximately 0.25 and a maximum FAR of approximately 0.54. The FAR for the total Project site would be approximately 0.51. The Project Applicant anticipates that Parcels 1, 2, and 3 would primarily be occupied by warehouse distribution uses, while Parcel 4 would be occupied by light industrial uses (Western Realco, 2011a). Although the Moreno Valley Industrial Area Plan (MVIAP) designates an "Industrial Support Area" overly on the northwestern portion of the site, which allows the construction of industrial support uses within 300 feet of the Iris Avenue/Heacock Street intersection, the Project Applicant has elected not to include industrial support uses as part of the Project.

Table 3-2 March Business Center Statistical Summary

PARCEL	NET PARCEL SIZE	TOTAL BUILDING AREA	FAR[1]
1	2,077,688 s.f.	1,103,003 s.f.	0.53
2	512,072 s.f.	277,243 s.f.	0.54
3	258,479 s.f.	87,429 s.f.	0.34
4	67,144 s.f.	16,732 s.f.	0.25
Total	**2,915,383 s.f.**	**1,484,407 s.f.**	**0.51**

1: Floor Area Ratio (FAR) is calculated by dividing the maximum building square footage by the net square footage of the parcel on which the building is located. Total FAR is calculated by dividing the total square footage of all buildings by the total net square footage of the parcels on which they would be located.
Source: PA11-0002, PA11-0003, PA11-0004, PA-0005, and PA11-0006 prepared by Bastien and Associates, Inc., August 17, 2011.

C. Parking and Loading

The Master Plot Plan and the individual Building Plot Plans depict the number and location of parking spaces (including trailer parking) and loading bays for each of the proposed structures. As summarized on Table 3-2, *March Business Center Parking Summary*, the proposed Project would include 678 automobile parking spaces (including 21 spaces accessible to persons with disabilities) The proposed Project also would provide truck trailer parking spaces and loading bays that would be used for loading, unloading, and short-term parking (as illustrated on Figure 3-11). The proposed Project also would provide bicycle parking in compliance with the City of Moreno Valley Municipal Code Section 9.11, which requires bicycle parking to be provided for 5% of required vehicle parking. The parking provided on the site would meet or exceed the City of Moreno Valley's vehicular and bicycle parking requirements established by Chapter 9.11 of the City of Moreno Valley Municipal Code. Truck check-in points and driveways would be positioned interior to the business park to create interior stacking distances to minimize the potential for trucks to stack onto public streets when entering the Project site.

D. Architecture

Figure 3-16, *March Business Center Conceptual Elevations*, depicts the conceptual architectural elevations of proposed architecture for the Project. The proposed buildings would be constructed with a maximum height up to 45 feet; however, architectural projections may exceed 45 feet in

Table 3-3 March Business Center Parking Summary

PARCEL	AUTOMOBILE PARKING	ACCESSIBLE PARKING
1	418	10
2	132	5
3	86	4
4	42	2
Total	**678**	**21**

Source: PA11-0002, PA11-0003, PA11-0004, PA-0005, and PA11-0006 prepared by Bastien and Associates, Inc., August 17, 2011.

height. The buildings would be constructed with concrete tilt-up panels and green, low-reflective glass. Articulated building elements including parapets and clear anodized aluminum canopies and mullions would be provided as decorative elements. The color palette for the exterior architecture is proposed to include earth-toned colors, including beige, light brown, medium brown, and burnt red.

As depicted on Figure 3-12 through Figure 3-15, the Project would provide solid concrete screen walls (up to 14 feet in height) to screen truck parking and loading dock areas from public view. The concrete screen walls would be constructed with a finish and color that complements the color palette for proposed structures on site. Fencing also would be provided to delineate property boundaries; 6-foot high wrought iron fencing would be provided in areas visible from public viewing areas while 6-foot tall chain link fencing would be provided in areas not visible from public viewing areas.

The interior of each building is designed to provide a main floor and office space. The larger buildings have the potential to be partitioned for multiple tenant use.

E. Conceptual Landscape Plan

A conceptual landscape plan has been prepared for the Project as part of the Plot Plan applications and is depicted on Figure 3-17 and Figure 3-18, *March Business Center Conceptual Landscape Plan*. The landscape plan indicates that trees, shrubs, and groundcovers are proposed to be planted along street frontages (within the public right-of-way), at building entries and driveways, in and around detention basins, along proposed screen walls and fencing, and along the perimeter of the site. In addition, 6-foot tall landscaped berms would be provided in front of proposed on-site concrete screen walls to reduce the perceived height of the screen walls. Landscaping is estimated to cover approximately 11% of the Project site (approximately 7.4 acres). Proposed landscaping would be ornamental in nature, except within detention basins where plant materials would be selected to serve water quality functions. Prior to the issuance of building permits for the development of individual lots, future development proposals would be required to submit planting and irrigation plans to the City of Moreno Valley for review and approval. The plans would be required to comply with Chapter 9.17 of the City of Moreno Valley Municipal Code, which establishes requirements for landscape design, automatic irrigation system design, and water-use efficiency.

3.3.3 GENERAL PLAN AMENDMENT PA11-0001

A General Plan Amendment (PA11-0001) is proposed as part of the Project to modify the Circulation Element of the City of Moreno Valley General Plan. The proposed modifications to the Circulation Element would consist of changes to the planned alignment and classification of a segment of Krameria Road between Heacock Street and proposed Cosmos Street. Under existing conditions,

Krameria Avenue terminates east of the Project site at Indian Avenue; however, the City's General Plan Circulation Element calls for Krameria Avenue to be extended to Heacock Street diagonally across the southern portion of the Project site, meeting Heacock Street at an oblique angle. The Project proposes a different alignment for Krameria Avenue, as depicted on Figure 3-19, *Proposed Modifications to Krameria Avenue Alignment*. The intended purpose of this change is to provide a 90-degree intersection where Krameria Avenue meets Heacock Street and to provide a perpendicular connection between Heacock Street and proposed Cosmos Street to allow for a more safe and efficient local circulation system. In addition, the proposed General Plan Amendment would downgrade the classification for the Krameria Avenue segment between Indian Avenue and Heacock Street from a "Minor Arterial (88-foot right-of-way)" to an "Industrial Collector (78-foot right-of-way).

3.3.4 SPECIFIC PLAN AMENDMENT P11-004

In addition to the General Plan Amendment described above, the proposed realignment and reclassification of Krameria Avenue through the Project site would require an amendment to the Moreno Valley Industrial Area Plan (Specific Plan 208). The proposed Specific Plan Amendment (P11-004) would change the planned alignment of the on-site segment of Krameria Avenue as described above in Section 3.3.3 and shown on Figure 3-19. The proposed Specific Plan Amendment also would change the classification of the segment of Krameria Avenue between Indian Avenue and Heacock Street from a "Minor Arterial (88-foot right-of-way)" to an "Industrial Collector (78-foot right-of-way)," as would similarly occur under the proposed General Plan Amendment.

3.3.5 PROJECT CONSTRUCTION AND OPERATIONAL CHARACTERISTICS

A. Construction Details

The Project Applicant indicated that the proposed Project would be constructed over two (2) phases (Western Realco, 2011a). Phase 1 would include mass grading of the entire Project site, installation of the master underground utility system (including off-site connections), fine site grading for Parcels 1-4, and construction of the proposed building on Parcel 1 (including utility and service connections). Phase 1 of construction is estimated to take approximately 12 months to complete. Phase 2 of construction would include developing the proposed buildings on Parcels 2-4 and connecting them to the underground utility system. Construction of Phase 2 would commence approximately 12 months following the completion of Phase 1. Phase 2 would take approximately 10 months to construct. Construction equipment is expected to operate on the Project site eight (8) hours per day. The types and numbers of heavy equipment expected to be used during Project construction activities are listed in the air quality technical report attached to this EIR as *Technical Appendix B1*. For purposes of evaluation in this EIR, it is assumed that the building on Parcel 1 would be occupied in the Year 2014/2015 and the buildings on Parcels 2, 3, and 4 would be occupied in the Year 2016 or later.

One (1) groundwater monitoring well is located within the north-central portion of the Project site and three (3) monitoring wells are located near the perimeter of the Project site (near the eastern, southeastern, and southwestern boundaries of the Project site, respectively). These groundwater monitoring wells are used by the Department of the Air Force to monitor groundwater contamination levels resulting from historical contamination at the March Air Reserve Base. Two (2) of the wells would be relocated as part of the Project's construction activities, in accordance with authorizations issued by the Department of the Air Force. The relocation process includes the abandonment of the existing wells and the construction of new wells. As of the writing of this EIR, it was anticipated that

the replacement wells would be drilled in accessible and appropriate locations near the existing wells. The two (2) other existing monitoring wells located near the perimeter of the site would be preserved in place, and would be protected from damage during grading and construction activities.

B. Operational Details

At the time this EIR was prepared, the future tenants of the Project site were unknown. For the purpose of analysis in this document, the future uses on site are assumed to be any of those uses permitted by the Moreno Valley Industrial Area Plan's "Industrial" designation. Furthermore, this EIR assumes the Project would be operational 24 hours per day. The Project Applicant estimates that Parcels 1-3 would be primarily occupied by warehouse distribution land uses and Parcel 4 would be primarily occupied by light industrial land uses (Western Realco, 2011a). The buildings are not designed to accommodate tenants that require warehouse refrigeration. Business operations would be conducted within enclosed buildings, with the exception of traffic movement, parking, and the loading and unloading of trucks at designated loading bays.

Because tenants of the Project's buildings are not yet known, the number of jobs that the Project would generate cannot be precisely determined; therefore, for purposes of analysis within this EIR, employment estimates have been calculated using data and average employment density factors reported by the Southern California Association of Governments in their publication *"Employment Density Study Report,"* (SCAG 2001). Using this data, the proposed Project is expected to create approximately 2,560 new, recurring jobs. (Refer to Subsection 5.3, Growth-Inducing Impacts of the Proposed Project, for more information about the Project's employment estimate calculations.)

According to a Water Supply Assessment prepared for the Project by EMWD (*Technical Appendix L* to this EIR), the business park uses proposed by the Project are estimated to result in a demand for approximately 46,851 gallons of potable water per day (or about 52.5 acre-feet per year). The Project also is estimated to result in an average daily demand of 113,696 gallons per day of wastewater treatment capacity (based on EMWD's wastewater generation factor of 1,700 gallons per day per acre for light industrial land uses).

3.4 STANDARD REQUIREMENTS AND CONDITIONS OF APPROVAL

The proposed General Plan Amendment (PA11-0001), Specific Plan Amendment (P11-004), Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan (PA11-0002), and four (4) Building Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006) and their technical aspects have been reviewed in detail by various City of Moreno Valley departments. These departments are responsible for reviewing land use applications for compliance with City codes and regulations. These departments also were responsible for reviewing this EIR (P11-005) for technical accuracy and compliance with CEQA. The City of Moreno Valley departments responsible for technical review include:

- Planning Division of Community & Economic Development Department
- Building and Safety Division of Community & Economic Development Department
- Land Development Division of Community & Economic Development Department
- Transportation Engineering Division of Public Works Department
- Special Districts Division of Public Works Department
- Fire Prevention Bureau
- Moreno Valley Utility

Review of the development applications (*i.e.*, PA11-0001, PA11-0002, PA11-0003, PA11-0004, PA11-0005, PA11-0006, PA11-0007, and P11-004) by the City Departments listed above will result in the production of a comprehensive set of draft Conditions of Approval that will be available for public review prior to consideration of the proposed Project by the Moreno Valley City Council. These conditions will be considered by the City Council in conjunction with their consideration of PA11-0001, PA11-0002, PA11-0003, PA11-0004, PA11-0005, PA11-0006, PA11-0007, and P11-004. If approved, the Project will be required to comply with all imposed Conditions of Approval.

Conditions of Approval and other applicable regulations, codes, and requirements that the Project is required to comply with and that result in the reduction or avoidance of an environmental impact are specified in each subsection of Chapter 4.0, *Environmental Analysis*. These are referred to as "Project Requirements" throughout this EIR.

3.5 SUMMARY OF REQUESTED ACTIONS

The City of Moreno Valley has primary approval responsibility for the proposed Project. As such, the City is serving as the Lead Agency for this EIR pursuant to CEQA Guidelines §15050. (The role of the Lead Agency was previously described in more detail in Section 1.4 of this EIR.) The City Planning Commission will consider the Project's requested discretionary permit applications and approvals and make advisory recommendations to the Moreno Valley City Council. The City Council will have final authority over approval, approval with changes, or denial of the requested actions that are within the City's jurisdiction. The City will consider the information contained in this EIR and this EIR's Administrative Record in its decision-making processes. Upon approval of the Project and certification of this EIR, the City would conduct administrative reviews and grant ministerial permits and approvals to implement Project requirements and conditions of approval. A list of the primary actions under City jurisdiction is provided in Table 3-4, *Matrix of Project Approvals/Permits*.

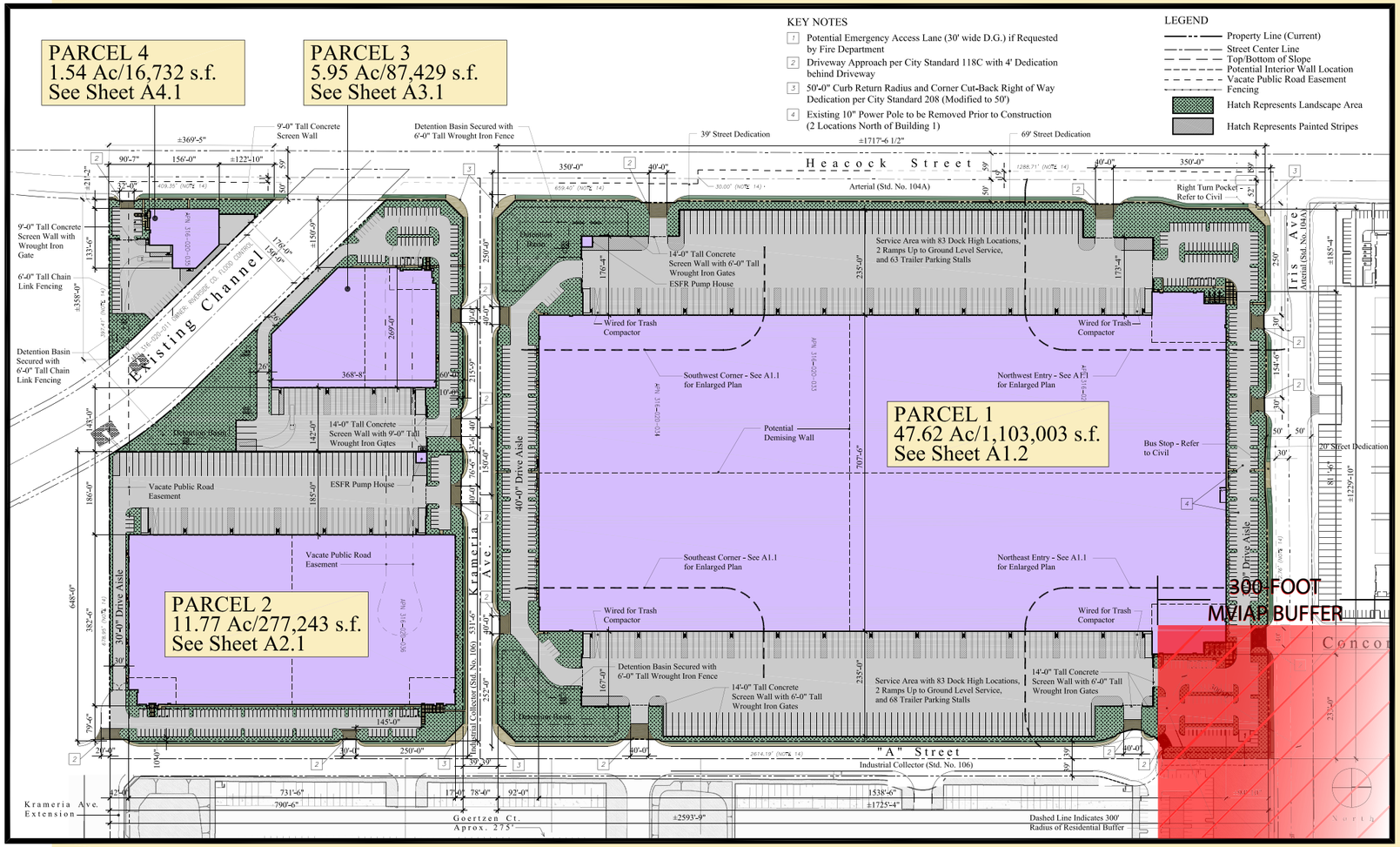
3.6 RELATED ENVIRONMENTAL REVIEW AND CONSULTATION REQUIREMENTS

Subsequent to approval of the General Plan Amendment PA11-0001, Specific Plan Amendment P11-004, Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan PA11-0002, and four (4) Plot Plans (PA11-0003, PA11-0004, PA11-0005, and PA11-0006) by the City of Moreno Valley, additional discretionary and/or administrative actions would be necessary to implement the proposed Project. Table 3-4, *Matrix of Project Approvals/Permits*, lists the agencies that are expected to use this EIR and provides a summary of the subsequent actions associated with the Project. This EIR covers all federal, state, local government and quasi-government approvals which may be needed to construct or implement the Project, whether or not they are explicitly listed in Table 3-4, or elsewhere in this EIR (CEQA Guidelines Section 15124(d)).

Table 3-4 Matrix of Project Approvals/Permits

PUBLIC AGENCY	APPROVALS AND DECISIONS
City of Moreno Valley	
Proposed Project – City of Moreno Valley Discretionary Approvals	
City of Moreno Valley Planning Commission	• Provide recommendations to the City of Moreno Valley City Council whether to approve the General Plan Amendment PA11-0001, Specific Plan Amendment P11-004, Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan PA11-0002) and Plot Plans PA11-0003, PA11-0004, PA11-0005, and PA11-0006. • Provide recommendations to the City of Moreno Valley City Council regarding certification of this EIR.
City of Moreno Valley City Council	• Approve or deny General Plan Amendment PA11-0001. • Approve, conditionally approve, or deny Specific Plan Amendment P11-004. • Approve, conditionally approve, or deny Tentative Parcel Map No. 35879 (PA11-0007). • Approve, conditionally approve, or deny Master Plot Plan PA11-0002. • Approve, conditionally approve, or deny Plot Plan PA11-0003. • Approve, conditionally approve, or deny Plot Plan PA11-0004. • Approve, conditionally approve, or deny Plot Plan PA11-0005. • Approve, conditionally approve, or deny Plot Plan PA11-0006. • Reject or certify this EIR along with appropriate CEQA Findings (P11-005).
Subsequent City of Moreno Valley Discretionary and Ministerial Approvals	
City of Moreno Valley Subsequent Implementing Approvals	• Approve Final Maps, parcel mergers, lot line adjustments, or parcel consolidations, as may be appropriate. • Approve Conditional or Temporary Use Permits, if required. • Issue Grading Permits. • Issue Building Permits. • Approve Road Improvement Plans. • Issue Encroachment Permits. • Accept public right-of-way dedications. • Approve street vacations.
Other Agencies – Subsequent Approvals and Permits	
Riverside County Flood Control and Water	• Approvals for on- and off-site drainage infrastructure.

PUBLIC AGENCY	APPROVALS AND DECISIONS
Conservation District	
Eastern Municipal Water District	• Approvals for the construction of on- and off-site water and sewer infrastructure.
Santa Ana Regional Water Quality Control Board	• Issuance of a Construction Activity General Construction Permit. • Issuance of a National Pollution Discharge Elimination System Permit. • Issuance of a Section 401 Permit pursuant to the Clean Water Act.
California Department of Fish and Game	• Issuance of a Section 1602 Streambed Alteration Agreement pursuant to the Fish and Game Code.
U.S. Army Corps of Engineers	• Issuance of a Section 404 Permit pursuant to the Clean Water Act.
U.S. Department of the Air Force	• Approval for relocation of two groundwater monitoring wells.



Sheet List

A0.1 - Conceptual Masterplan
A0.2 - Site Plan Photos / Street Sections

A1.1 - Building 1 Enlarged Site Plans
A1.2 - Building 1 Floor Plan
A1.3 - Building 1 Roof Plan
A1.41-1.44 - Building 1 Elevations

A2.1 - Building 2 Enlarged Site Plan
A2.2 - Building 2 Floor Plan
A2.3 - Building 2 Roof Plan
A2.41-2.42 - Building 2 Elevations

A3.1 - Building 3 Enlarged Site Plan
A3.2 - Building 3 Floor and Roof Plans
A3.3 - Building 3 Elevations

A4.1 - Building 4 Site, Floor, Roof Plans
A4.2 - Building 4 Elevations

Civil 1 of 3 - Conceptual Grading Plan
Civil 2 of 3 - Conceptual Grading Plan
Civil 3 of 3 - Conceptual Utility Plan
Tentative Parcel Map

LS 1 of 7 - Landscape Plan - Bldg 4
LS 2 of 7 - Landscape Plan - Bldg 3
LS 3 of 7 - Landscape Plan - Bldg 2
LS 4 of 7 - Landscape Plan - Bldg 1, Quad 1
LS 5 of 7 - Landscape Plan - Bldg 1, Quad 2
LS 6 of 7 - Landscape Plan - Bldg 1, Quad 3
LS 7 of 7 - Landscape Plan - Bldg 1, Quad 4

A.P.N.

316-020-032
316-020-033
316-020-034
316-020-035
316-020-036

Project Directory

OWNER/DEVELOPER:
WESTERN REALCO, LLC
500 Newport Center Drive, Suite 630
Newport Beach, California 92660
Telephone: 949.720 3787
Contact: Gary Edwards, Vance Mape

ARCHITECT:
BASTIEN AND ASSOCIATES, INC.
15661 Red Hill Avenue, Suite 150
Tustin, California 92780
Telephone: 714.617.8600
Contact: Mike McAndrew

ENTITLEMENT COORDINATOR:
HOGLE-IRELAND
1500 Iowa Avenue, Suite 110
Riverside, CA 92507
Telephone: 951 787 9222
Contact: Pam Steele, Deirdre McCollister

CIVIL:
THIENES ENGINEERING
14349 Firestone Blvd.
La Mirada, CA 90638
Telephone: 714 521 4811
Contact: Brian Thienes

LANDSCAPE:
EMERALD DESIGN
305 N. Harbor Blvd., Suite 218
Fullerton, CA 92832
Telephone: 714 680 0417
Contact: Charles Lamb

Legal Description

The land referred to hereon is situated in the State of California, County of Riverside, City of Moreno Valley, described as follows:

Lot(s) 12 and 13 in block 2 of Riverside Alfalfa Acres, in the City of Moreno Valley, in the County of Riverside, State of California, as shown by map on file in book 8 page(s) 21, of maps, records of Riverside County, California;

Excepting therefrom that portion conveyed to the Riverside County Flood Control and Water Conservation District, by deed recorded may 8, 1953 in book 1470 page 215 and re-recorded may 13, 1955 in book 1737 page 140, both of official records of Riverside County, California;

Also excepting therefrom the westerly 30 feet as conveyed to the County of Riverside, by deed recorded July 8, 1974 as instrument no. 84961 of official records of Riverside County, California;

Also excepting therefrom that portion conveyed to the Riverside County Flood Control and Water Conservation District, by deed recorded march 15, 1995 as instrument no. 79418 and re-recorded April 4, 1995 as instrument no. 102439 of official records of Riverside County, California.

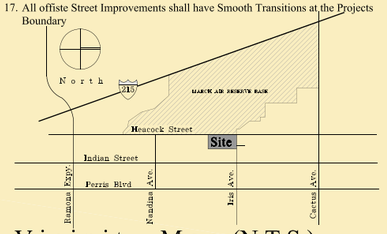
Lot(s) 4 and 5 in block 2 of Riverside Alfalfa Acres, in the City of Moreno Valley, in the County of Riverside, State of California, as shown by map on file in book 8 page(s) 21, of maps, records of Riverside County, California.

MASTERPLAN SUMMARY

PARCEL 1		
Site Area	47.62 Acres	2,074,200 s.f.
Building Area		1,103,003 s.f.
Site Coverage		53.18%
Parking Required (2.5% Office/97.5% Warehouse)		400 Spaces
Parking Provided		418 Spaces
Parking Ratio		.38/1,000
Landscape Area	9.60%	199,214 s.f.
PARCEL 2		
Site Area	11.77 Acres	512,545 s.f.
Building Area		277,243 s.f.
Site Coverage		54.09%
Parking Required (4% Office/95% Warehouse)		131 Spaces
Parking Provided		132 Spaces
Parking Ratio		.48/1,000
Landscape Area	7.12%	36,475 s.f.
PARCEL 3		
Site Area	5.95 Acres	259,110 s.f.
Building Area		87,429 s.f.
Site Coverage		33.74%
Parking Required (10% Office/90% Warehouse)		75 Spaces
Parking Provided		86 Spaces
Parking Ratio		.98/1,000
Landscape Area	23.21%	60,143 s.f.
PARCEL 4		
Site Area	1.54 Acres	67,328 s.f.
Building Area		16,732 s.f.
Site Coverage		24.85%
Parking Required (25% Office/75% Manufacturing)		42 Spaces
Parking Provided		42 Spaces
Parking Ratio		2.51/1,000
Landscape Area	22.11%	14,887 s.f.
MASTERPLAN TOTALS		
Site Area	66.88 Acres	2,913,183 s.f.
Building Area		1,484,407 s.f.
Site Coverage		50.95%
Landscape Area	10.67%	310,719 s.f.

General Notes

1. For Property Line Information, Refer to Conceptual Grading Plan.
2. For Grade Elev's and Contour Lines, Refer to Conceptual Grading Plan.
3. All Lighting to Conform with Municipal Standards.
4. All Signage and Graphics to Conform with Municipal Standards.
5. All Parking Stalls shall be 9' x 18' and Double Striped.
6. All Landscape Fingers shall have Minimum Interior Dim of 5' wide by 16' long, Exclusive of Curbs, Step Outs and Other Hard Surfaces.
7. For all Landscape Fingers and End Planters adjacent to a Park. Stall, a 12" Conc Stepout, in addition to the required Curbs, Shall be Provided.
8. Each Gated Entrance shall be Provided with Presence Loop Detectors (or other device) within 1 or 2 feet of the Gate.
9. Trash enclosures shall be designed per modified City standards to include a fully covered roof over the enclosure and accommodate two trash bins, one for trash and the other for recyclables.
10. All Roofs to be Class-A
11. Series 3200 Knox Boxes to be Installed at all Gate Locations and Entry Doors
12. Utility Purveyors:
    Water: Eastern Municipal Water District, 909-928-6111
    Sewer: Eastern Municipal Water District, 909-928-6111
    Gas: Southern California Gas Company-Redlands, 562-699-7411
    Electrical: SCE-Santa Ana
    Telephone: Verizon-Hemet, 951-929-9412
    Cable: Time Warner Comm.-Ontario, 909/951-929-9412
13. Subject Site is Zoned "I" (Industrial)
    Specific Plan "SP-208" (Oleander Specific Plan)
14. PL Distances provided for Reference Only - Refer to Civil Drawings for Property Line Bearings and Distances and for Horizontal Control
15. FEMA Flood Zone Designations are X-Unshaded, X-Shaded, AO, and AH - Refer to Tentative Parcel Map for Additional Information
16. See Sheet A0.2 for Typical Street Sections
17. All offsite Street Improvements shall have Smooth Transitions at the Projects Boundary

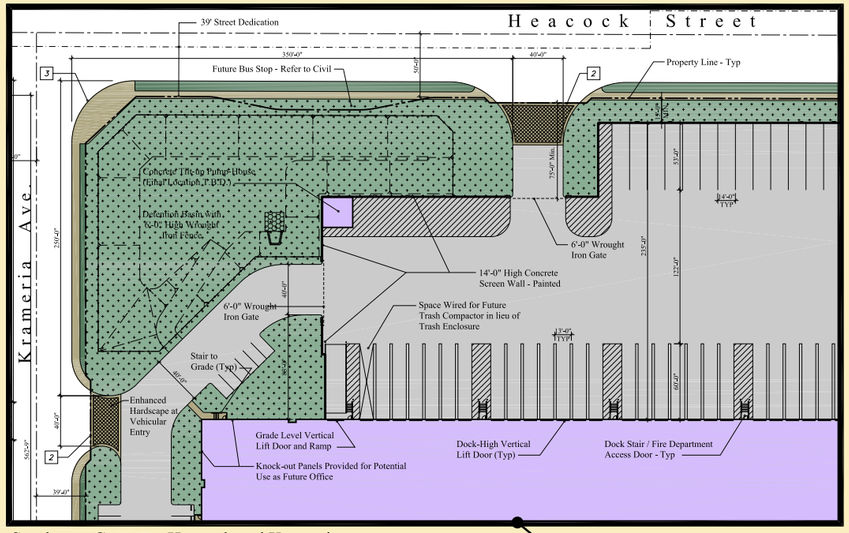


Source: Bastien and Associates, Inc. (08-17-11)

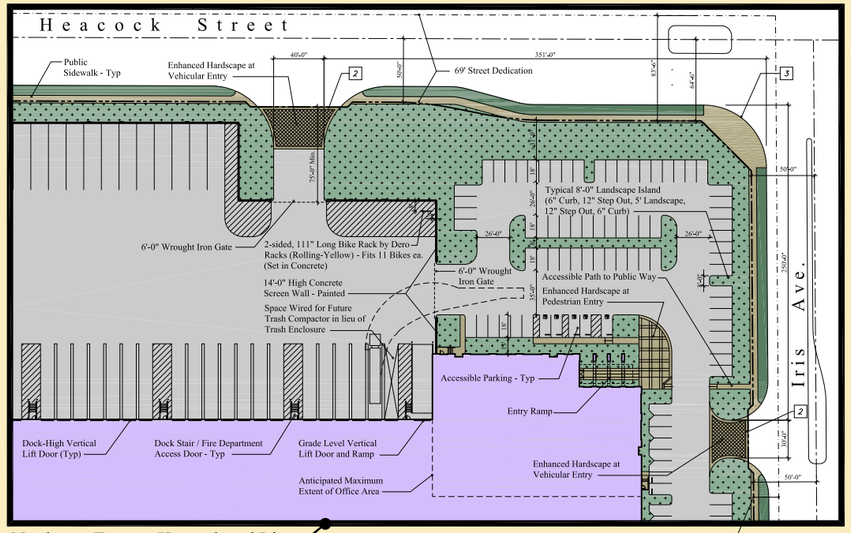
0 100 200 300 400 Feet

FIGURE 3-11
March Business Center Master Plot Plan

-985-



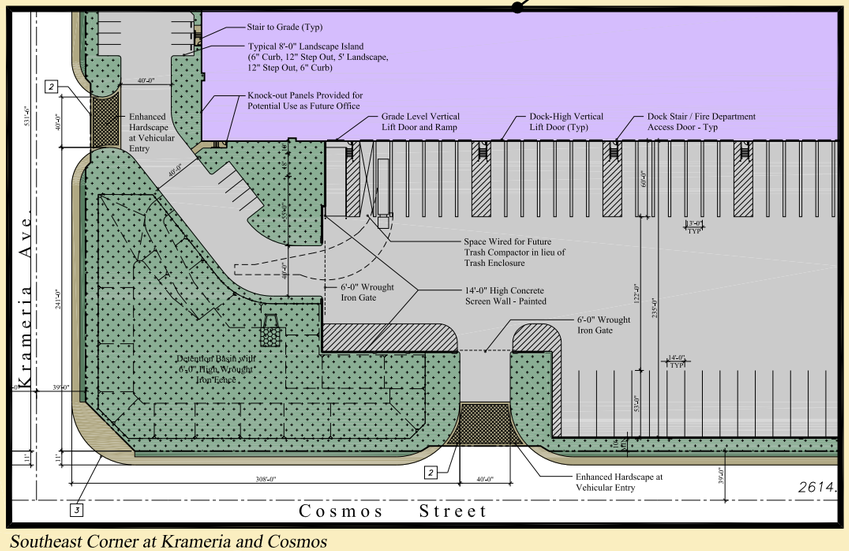
Southwest Corner at Heacock and Krameria



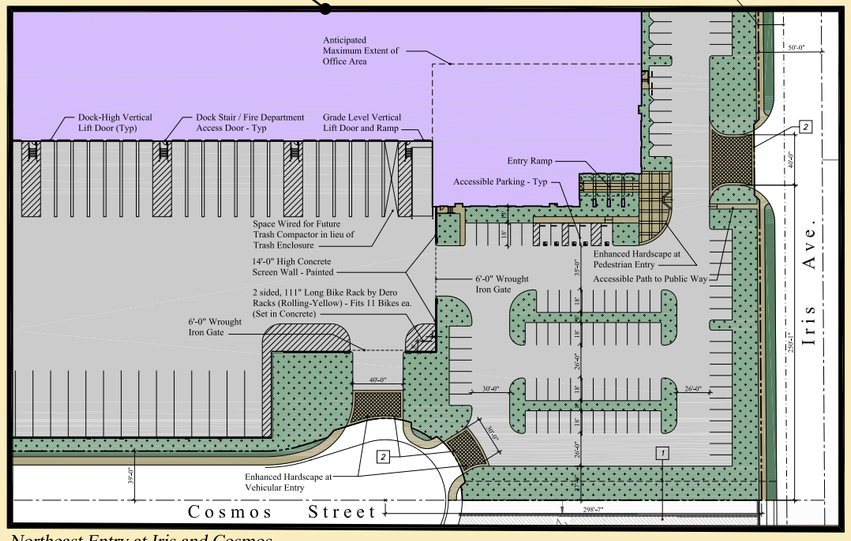
Northwest Entry at Heacock and Iris

NOTE: Building footprint is not contiguous here

20' Street Dedication



Southeast Corner at Krameria and Cosmos



Northeast Entry at Iris and Cosmos

LEGEND

- Property Line (Current)
- Street Center Line
- Top/Bottom of Slope
- Potential Interior Wall Location
- Vacate Public Road Easement
- Fencing
- Hatch Represents Landscape Area
- Hatch Represents Painted Stripes

ENLARGED SITE PLANS - BUILDING 1

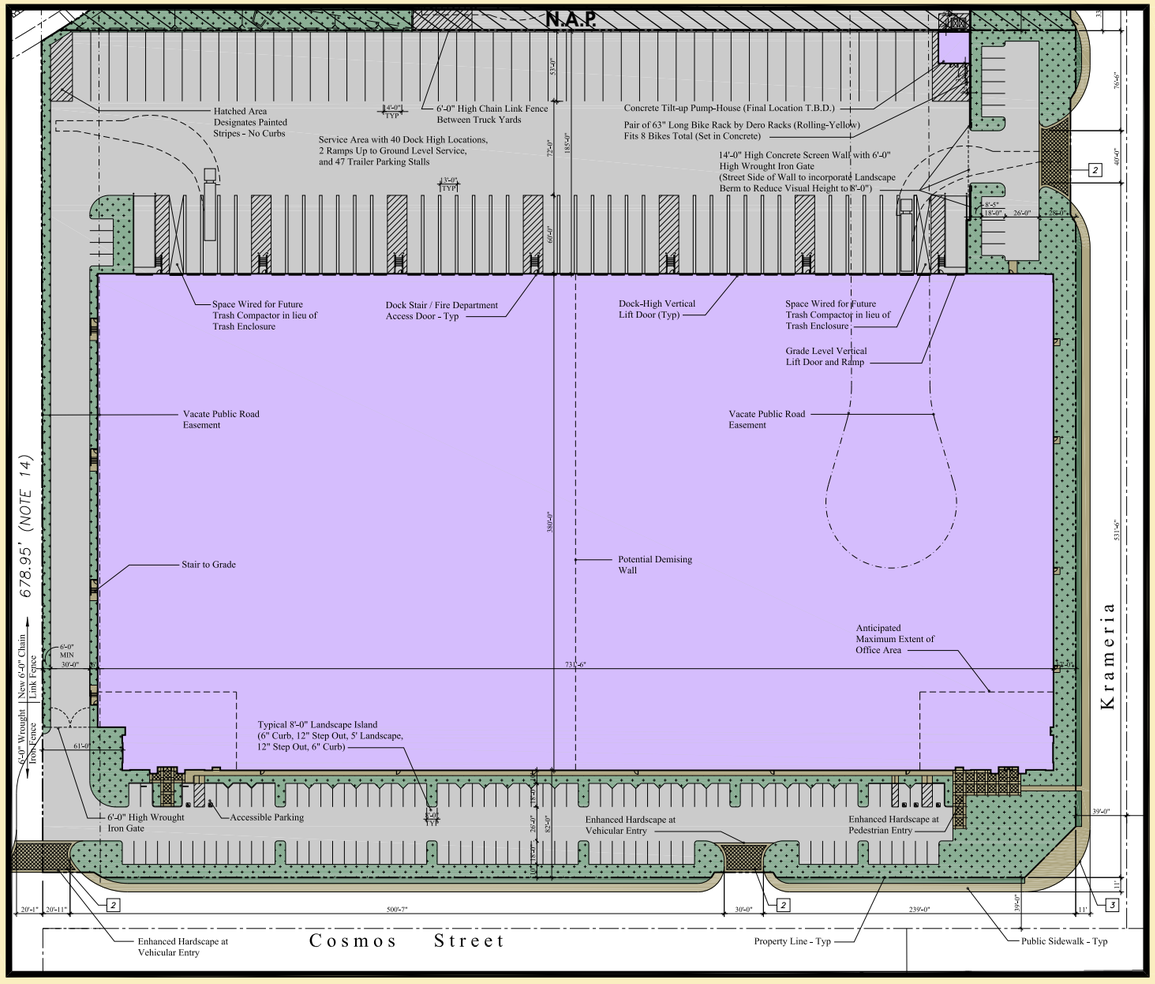
KEY NOTES

1. Potential Emergency Access Lane (30' wide D.G.) if Requested by Fire Department
2. Driveway Approach per City Standard 118C with 4' Dedication behind Driveway
3. 50'-0" Curb Return Radius and Corner Cut-Back Right of Way Dedication per City Standard 208 (Modified to 50')

Source: Bastien and Associates, Inc. (08-17-11)

0 20 40 80 120 160 Feet

FIGURE 3-12
Parcel 1 Plot Plan (PA11-0003)



LEGEND

- Property Line (Current)
- Street Center Line
- Top/Bottom of Slope
- Potential Interior Wall Location
- Vacate Public Road Easement
- Fencing

- Not A Part
- Hatch Represents Landscape Area
- Hatch Represents Painted Stripes

ENLARGED SITE PLAN - BUILDING 2

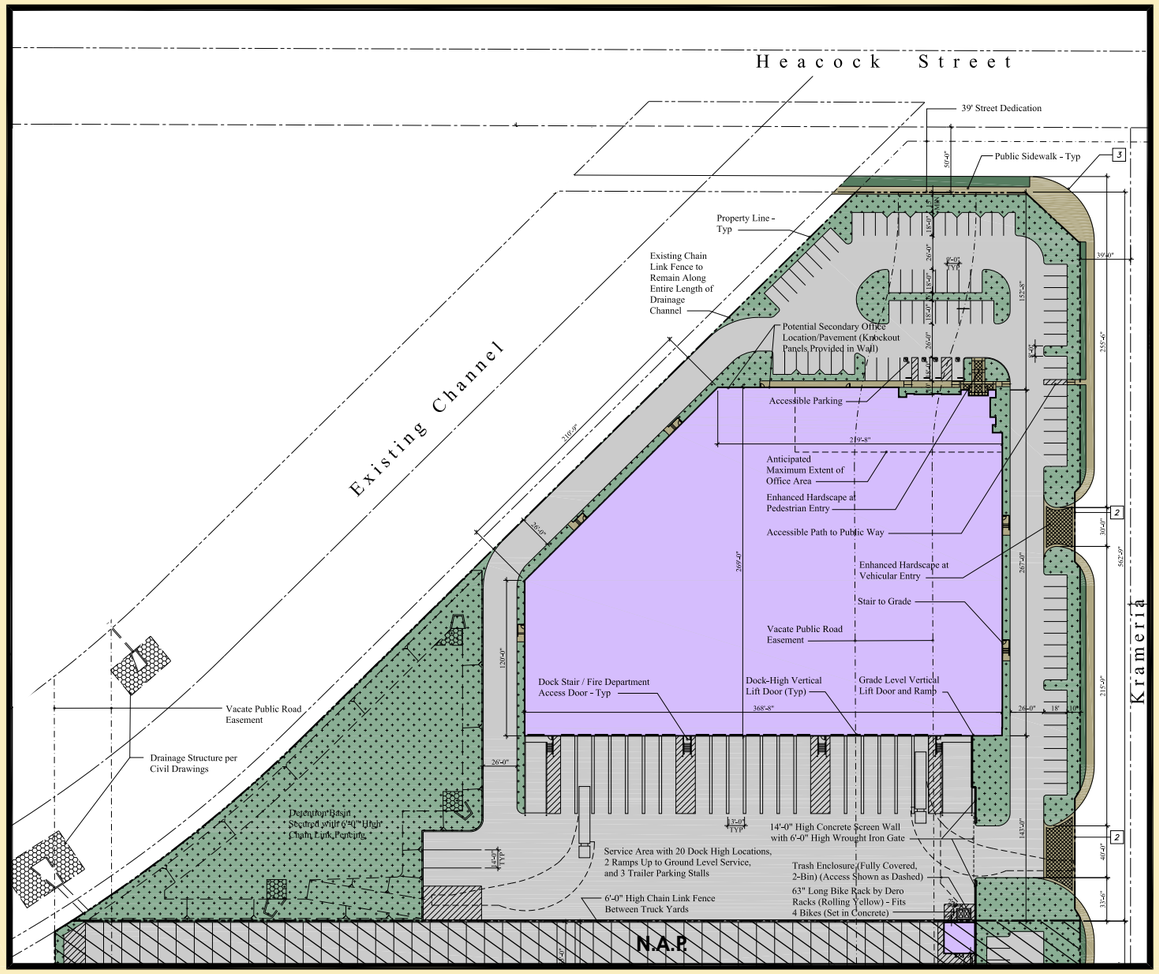
KEY NOTES

1. Not Used
2. Driveway Approach per City Standard 118C with 4' Dedication behind Driveway
3. 50'-0" Curb Return Radius and Corner Cut-Back Right of Way Dedication per City Standard 208 (Modified to 50')

Source: Bastien and Associates, Inc. (08-17-11)

0 20 40 80 120 160 Feet

FIGURE 3-13
Parcel 2 Plot Plan (PA11-0004)



LEGEND

- Property Line (Current)
- Street Center Line
- Top/Bottom of Slope
- Potential Interior Wall Location
- Vacate Public Road Easement
- Fencing

- Not A Part
- Hatch Represents Landscape Area
- Hatch Represents Painted Stripes

ENLARGED SITE PLAN - BUILDING 3

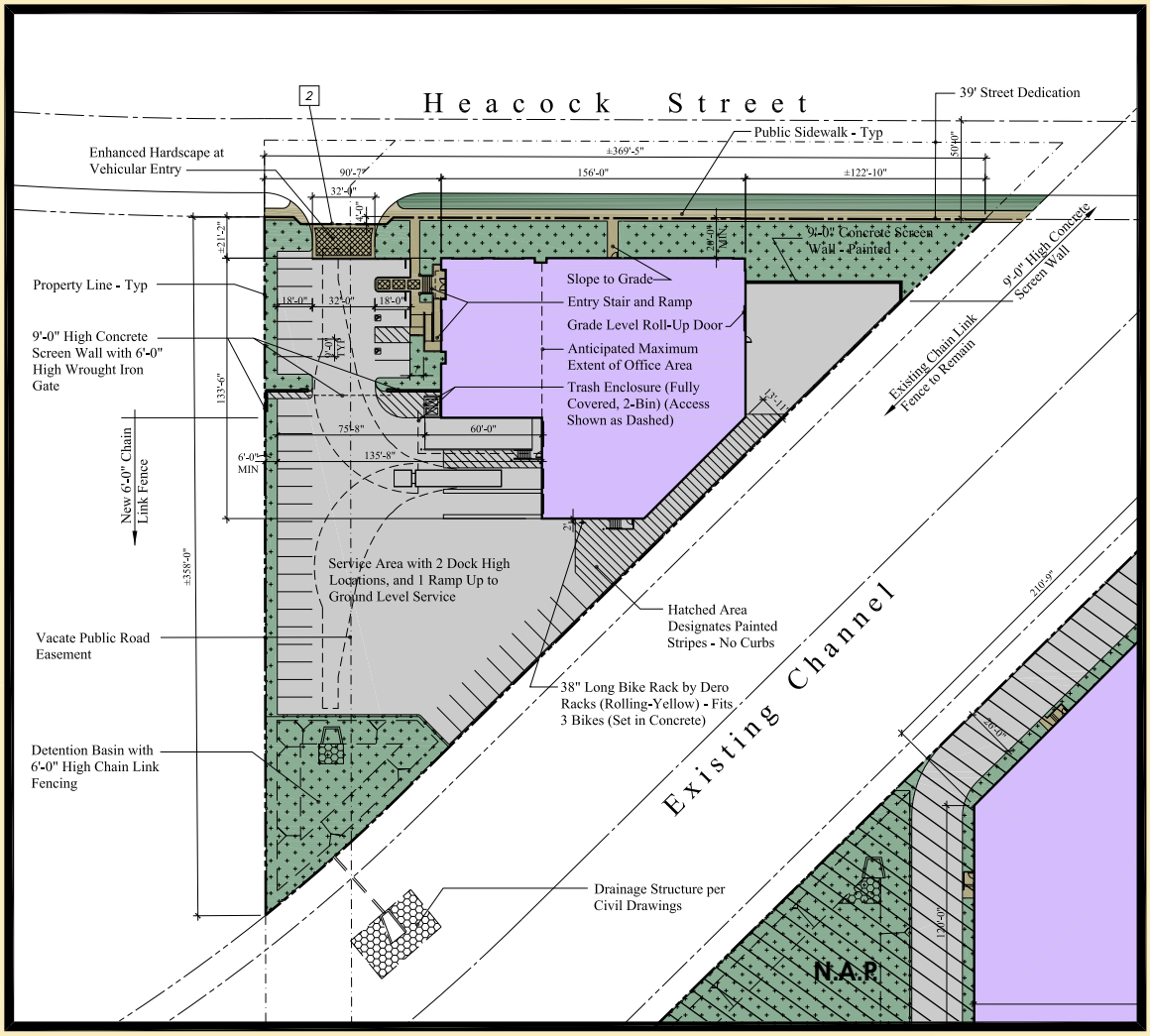
KEY NOTES

1. Not Used
2. Driveway Approach per City Standard 118C with 4' Dedication behind Driveway
3. 50'-0" Curb Return Radius and Corner Cut-Back Right of Way Dedication per City Standard 208 (Modified to 50')

Source: Bastien and Associates, Inc. (08-17-11)

0 20 40 80 120 160 Feet

FIGURE 3-14
Parcel 3 Plot Plan (PA11-0005)



Enlarged Site Plan

ALTERNATE PARKING CALCULATIONS

Parking Required (25% Office/75% Manufacturing)	42 Spaces
Parking Required (100% Manufacturing)	34 Spaces
Parking Required (50% Office/50% Warehouse)	42 Spaces
Parking Provided	42 Spaces

KEY NOTES

1. Not Used
2. Driveway Approach per City Standard 118C with 4' Dedication behind Driveway
3. Not Used

LEGEND

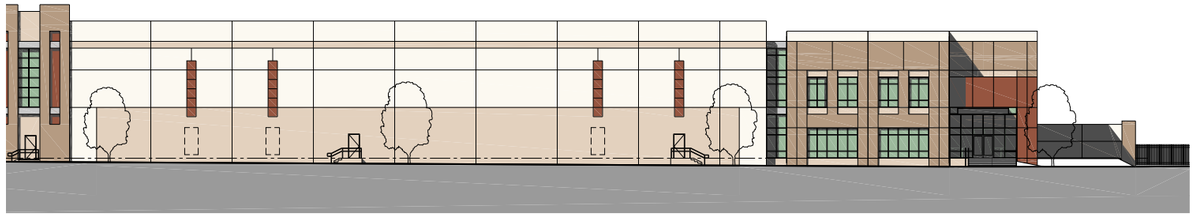
- Property Line (Current)
- Street Center Line
- Top/Bottom of Slope
- Vacate Public Road Easement
- Fencing
- Hatch Represents Landscape Area
- Hatch Represents Painted Stripes
- Not A Part

BUILDING 4

Source: Bastien and Associated, Inc. (08-17-11)

Not to Scale

FIGURE 3-15
Parcel 4 Plot Plan (PA11-0006)



1 - Partial North Elevation (Facing Iris Ave)

Buiding 1 - Partial West Elevation (Facing Heacock Street)

4 - West Elevation (Facing Heacock Street)

Buiding 4 - South Elevation

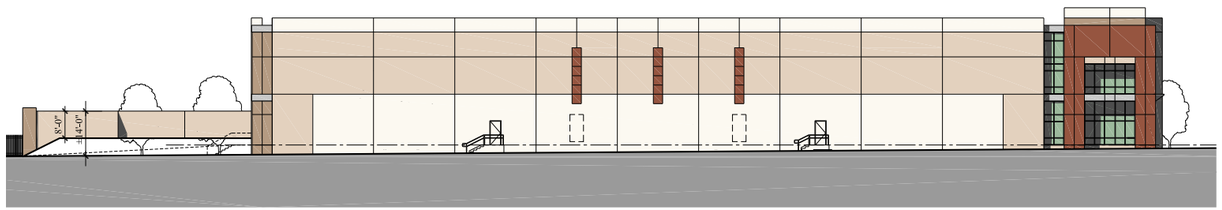
Paint Legend

Paint 1 - Beige (Dunn Edwards, or Equal - DE6127, Finest Silk, LRV 74)

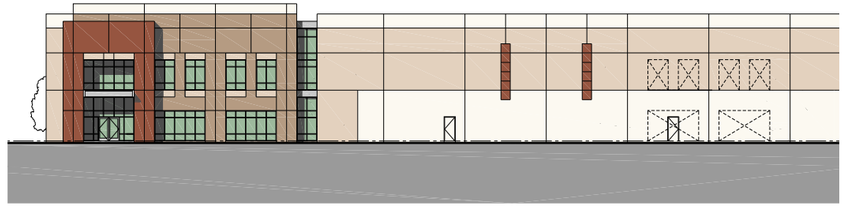
Paint 2 - Light Brown (Dunn Edwards, or Equal - DEC747, Sahara, LRV 52)

Paint 3 - Medium Brown (Dunn Edwards, or Equal - DE6096, Homestead, LI

Paint 4 - Burnt Red (Dunn Edwards, or Equal - DE5188, Ruddy Oak, LRV 1

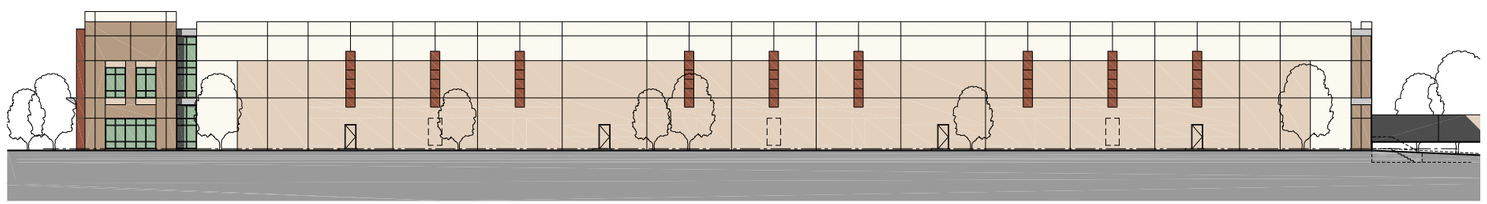


3 - North Elevation (Facing Krameria Ave)



Buiding 3 - Partial West Elevation (Facing Heacock Street)

2 - Partial East Elevation (Facing "A" Street)

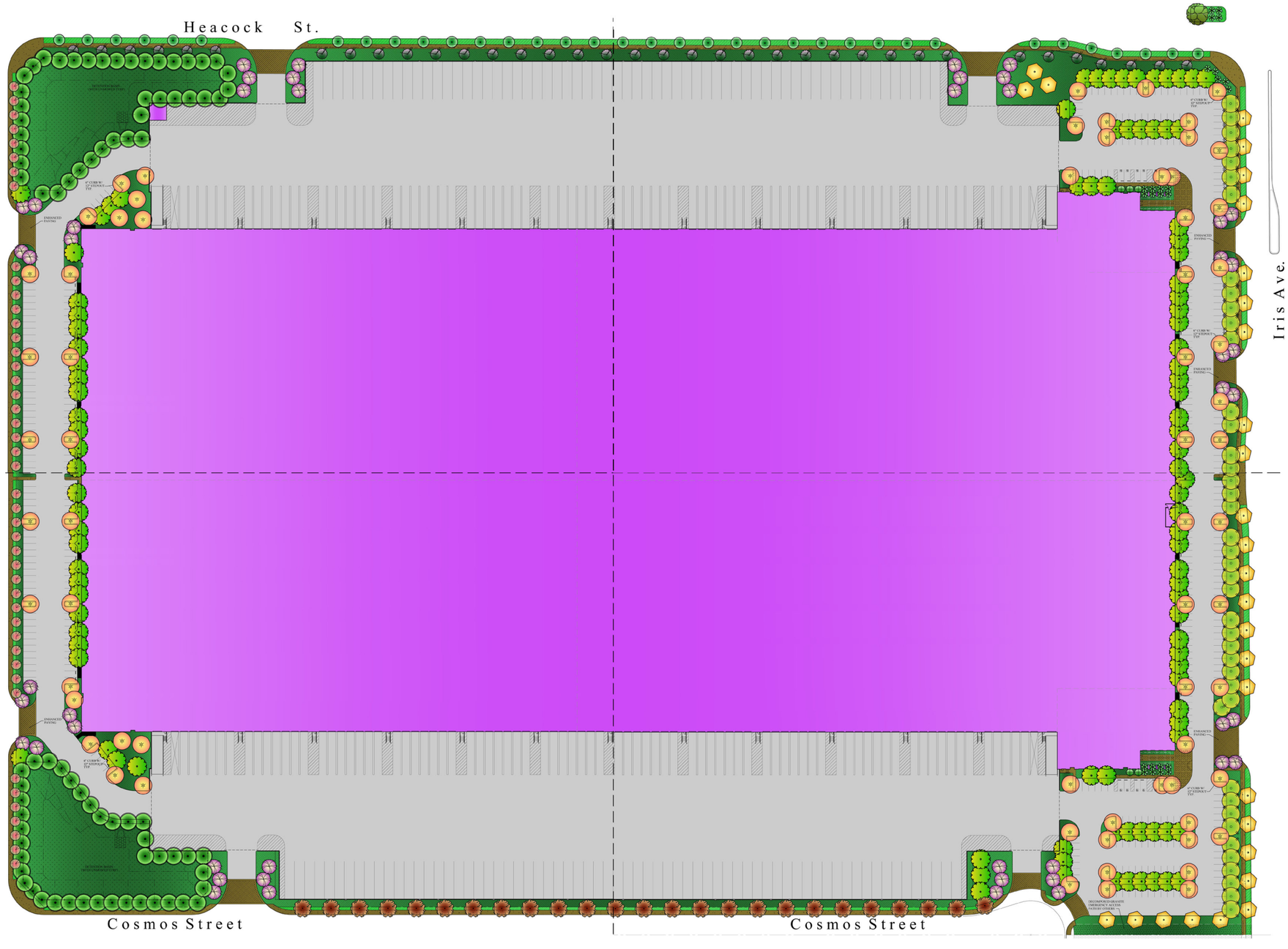


Buiding 2 - North Elevation (Facing Krameria Ave)

Source: Bastien and Associates, Inc. (08-17-11)

0 16 32 48 64 Feet

FIGURE 3-16
March Business Center Conceptual Elevations



Source: Emerald Design (08-17-11)

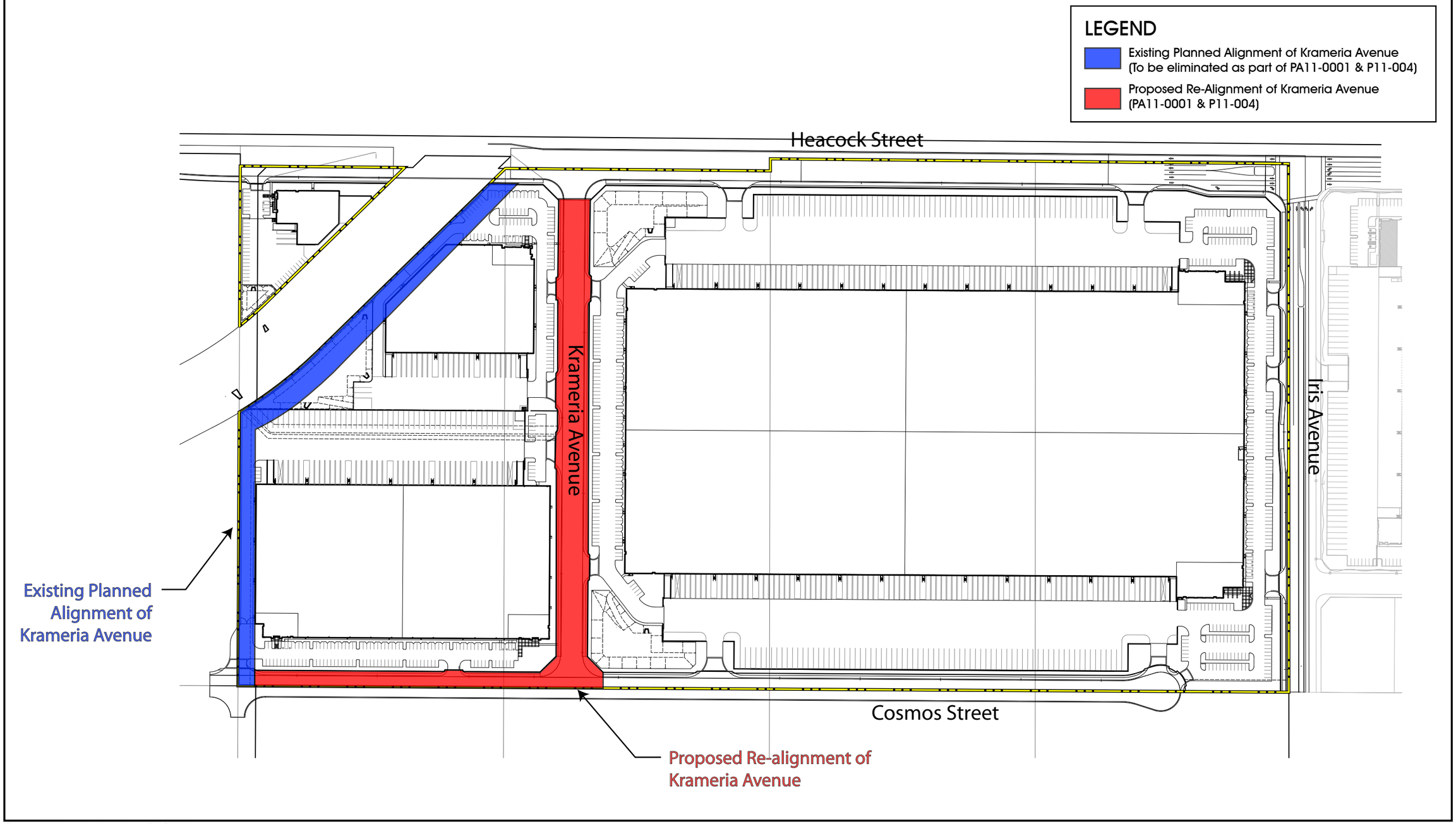
0 50 100 200 300 Feet

FIGURE 3-17
March Business Center Conceptual Landscape Plan - Parcel 1

Source: Emerald Design (08-17-11)

Not To Scale

FIGURE 3-18
March Business Center Conceptual Landscape Plan - Parcels 2, 3 & 4



Source: Theines Engineering (05-24-11)

FIGURE 3-19
Proposed Modifications to Krameria Avenue

4.0 ENVIRONMENTAL ANALYSIS

4.0.1 SUMMARY OF EIR SCOPE

In accordance with CEQA Guidelines §§15126 - 15126.4, this EIR Section 4.0, Environmental Analysis, provides analyses of potential direct, indirect, and cumulative impacts that could occur from planning, constructing, and operating the proposed Project.

In compliance with the procedural requirements of CEQA, an Initial Study was prepared to determine the scope of environmental analysis for this EIR. Public comment on the scope was considered in the form of written comments received by the City of Moreno Valley in response to the NOP issued for this EIR and oral comments provided by members of the public at the EIR scoping meeting held on June 29, 2011, at the Moreno Valley City Hall. Taking all known information and public comments into consideration, 12 primary environmental subject areas are evaluated in this Section 4.0, as listed below and presented alphabetically by subsection. Each subsection evaluates several specific subject matters related to the general topic of the subsection. The title of each subsection is not limiting; therefore, refer to each subsection for a full account of the subject matters addressed therein.

4.1 Aesthetics
4.2. Air Quality
4.3 Biological Resources
4.4 Cultural Resources
4.5 Geology and Soils
4.6 Greenhouse Gas Emissions
4.7 Hazards and Hazardous Materials
4.8 Hydrology and Water Quality
4.9 Land Use and Planning
4.10 Noise
4.11 Transportation/Traffic
4.12 Utilities and Service Systems

Five (5) environmental subjects were determined by the City to have no potential to be significantly impacted by the Project, as concluded by the Project's Initial Study (included in *Technical Appendix A* to this EIR) and after consideration of all comments received by the City on the scope of this EIR and documented in the City's administrative record. These five (5) subjects are discussed briefly in Section 5.0, Other CEQA Considerations, and include: agriculture resources, mineral resources, population/housing, public services, and recreation.

4.0.2 SCOPE OF CUMULATIVE EFFECTS ANALYSIS

CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a proposed project. As noted in CEQA Guidelines §15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "A cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects creating related impacts" (CEQA Guidelines §15130(a)(1)). As defined in CEQA Guidelines §15355:

'Cumulative Impacts' refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

(a) The individual effects may be changes resulting from a single project or a number of separate projects.

(b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

CEQA Guidelines §15130(b) describes two acceptable methods for identifying a study area for purposes of conducting a cumulative impact analysis. These two approaches include: "1) a list of past, present, and probable future projects producing related or cumulative impacts, including if necessary, those projects outside the control of the agency ['the list of projects approach'], or 2) a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact ['the summary of projections approach']."

The summary of projections approach is used in this EIR, except for the evaluation of cumulative traffic impact. The analysis of cumulative traffic impacts uses the list of project approach, as is required to be used by the City of Moreno Valley Transportation Engineering Division's Traffic Impact Analysis Preparation Guide (August 2007).

Using the summary of projections approach, the cumulative study area includes the City of Moreno Valley, the City of Perris, the City of Riverside, and the Harvest Valley/Winchester Area Plan (HVWAP), Lakeview/Nuevo Area Plan (LNAP), and the Mead Valley Area Plan (MVAP), all of which are part of the Riverside County General Plan. These three cities and the three Riverside County Area Plans encompass portions of western Riverside County that have similar environmental characteristics as the Project area. The selected study area encompasses the Perris Valley, which is largely bounded by prominent topographic landforms, such as Reche Canyon to the north, the Badlands to the east, and the Lakeview Mountains to the southeast. This study area exhibits similar characteristics in terms of climate, geology, and hydrology, and therefore is also likely to have similar biological characteristics and cultural resources. This study area also encompasses the service areas of the Project's primary public service and utility providers. Areas outside of this study area either exhibit topographic, climatological, or other environmental circumstances that are different from those of the Project area, or are simply too far from the proposed Project site to be cumulatively considerable.

Environmental impacts associated with the buildout of the Riverside County General Plan were evaluated in a Program-level EIR certified by Riverside County in 2003 (SCH No. 2002051143). The Riverside County General Plan EIR is herein incorporated by reference, and is available for review at the County of Riverside Transportation and Land Management Agency Planning Department, 4080 Lemon Street, 12th Floor, Riverside CA 92502. Likewise, the environmental impacts associated with the buildout of the City of Perris General Plan were evaluated in a Program-level EIR that was certified by the Perris City Council on April 26, 2005 (SCH No. 2004031135). The City of Perris General Plan EIR is also incorporated by reference, and is available for review at

the City of Perris Department of Community Development, 135 North "D" Street, Perris CA 92570. Finally, the environmental impacts associated with the buildout of the City of Riverside General Plan was evaluated in a Program-level EIR that was certified by the Riverside City Council in November 2007 (SCH No. 2004021108). The City of Riverside General Plan EIR is also incorporated by reference, and is available for review at the City of Riverside Community Development Department, Planning Division, 3900 Main Street, Riverside, CA 92522.

A specific cumulative study area was established to assess the cumulative effect of the Project's impacts to traffic and transportation, as required by the City of Moreno Valley Transportation Engineering Division's Traffic Impact Analysis Preparation Guide (August 2007) and in consultation with the City of Moreno Valley Community & Economic Development Department, Planning Division, and Transportation Engineering Division. The cumulative study area for traffic generally includes approved and pending development projects within a three (3)-mile radius of the Project site, as well as several large, traffic-intensive projects falling just beyond a three (3)-mile radius of the Project site. As such, the cumulative impact analysis of traffic impacts in EIR Subsection 4.11 analyzes 51 other past, present, and reasonably foreseeable projects within this study area. This methodology presents a more reasonable approach to cumulative traffic analysis than the General Plan projection approach by recognizing development projects that actually have the potential to contribute traffic to the same intersections, roadway segments, and/or freeway segments as the proposed Project and have the potential to be made fully operational during a similar timeframe as the proposed Project. Specific development projects included in the traffic impact cumulative analysis are listed in Table 4-4 of the Project's Traffic Impact Analysis (refer to *Technical Appendix K*).

4.0.3 IDENTIFICATION OF IMPACTS

Subsections 4.1 through 4.12 of this EIR evaluate the 12 environmental subjects warranting detailed analysis, as determined by this EIR's Initial Study. The format of discussion is standardized as much as possible in each section for ease of review. The environmental setting is discussed first, followed by a discussion of the Project's potential environmental impacts based on specified thresholds of significance used as criteria to determine whether potential environmental effects are significant. The thresholds of significance used in this EIR are based on the thresholds presented in CEQA Guidelines Appendix G and as applied by the City of Moreno Valley to create the Project's Initial Study Checklist (included in *Technical Appendix A* to this EIR). The thresholds are intended to assist the reader of this EIR in understanding how and why this EIR reaches a conclusion that an impact would or would not occur, is significant, or is less than significant. As required by CEQA Guidelines §15126.2(a), impacts are identified as direct, indirect, cumulative, short-term, long-term, on-site, and/or off-site impacts of the proposed Project.

A summarized "impact statement" is provided in each subsection following the analysis. The following terms are used to describe the level of significance as related to the physical conditions within the area affected by the proposed Project:

- No Impact: An adverse change in the physical environment would not occur.

- Less Than Significant Impact: An adverse change in the physical environment would occur but the change would not be substantial or potentially substantial and would not exceed the threshold(s) of significance presented in this EIR.

- Significant Impact: A substantial or potentially substantial adverse change in the physical environment would occur and would exceed the threshold(s) of significance presented in this EIR, requiring the consideration of mitigation measures.

Each subsection also includes a listing of the applicable regulatory criteria (laws, policies, regulations) that the Project is required to comply with (if any). If impacts are identified as significant, the regulatory criteria are followed by a list of feasible mitigation measures that could be applied to either avoid the impact or to reduce the magnitude of the impact. The following terms are used to describe the level of significance following the application of recommended mitigation measures:

- Less Than Significant Impact With Mitigation: A substantial or potentially substantial adverse change in the physical environment would occur that would exceed the threshold(s) of significance presented in this EIR; however, the impact can be avoided or reduced to a less than significant level through the application of feasible mitigation measures.

- Significant and Unavoidable Impact: A substantial or potentially substantial adverse change in the physical environment would occur that would exceed the threshold(s) of significance presented in this EIR. Feasible mitigation measures are either not available or would not be fully effective in avoiding or reducing the impact to below a level of significance.

For any impact identified as significant and unavoidable, the City of Moreno Valley would be required to adopt a statement of overriding considerations pursuant to CEQA Guidelines §15093 in order to approve the Project despite its significant impact(s) to the environment. The statement of overriding considerations would list the specific economic, legal, social, technological, and other benefits of the Project, supported by substantial evidence in the Project's administrative record, that outweigh the unavoidable impacts.

4.1 AESTHETICS

This subsection describes the aesthetic qualities and visual resources present on the Project site and in the site's vicinity. This subsection also analyzes the potential impacts that the Project could have on these resources.

In particular, descriptions of existing visual characteristics, both on site and in the vicinity of the Project site, are provided. Potential aesthetic impacts resulting from implementing the proposed Project are based in part on a site visit and site photographs collected by T&B Planning, Inc. in January 2011 (Horowitz 2011), analysis of aerial photography (Eagle Aerial 2010), Project application materials submitted to the City of Moreno Valley and described in Section 3.0 of this EIR, and information provided in reports appended to this EIR. This subsection also is based in part on information contained in the Conservation Element of the City of Moreno Valley General Plan (Moreno Valley 2006a Ch. 7, 7-12 – 14), and the Aesthetics section of the certified Final Program EIR prepared for the General Plan (SCH No. 2000091075) (Moreno Valley 2006b Sec. 5.11, 5.11-1 – 5.11-6).

4.1.1 EXISTING CONDITIONS

The Project site encompasses 75.05 acres in the City of Moreno Valley. The site is located south of Iris Avenue and east of Heacock Street. The Perris Valley Channel bisects the southern portion of the Project site, with 1.84 acres located south of the Channel and 73.21 acres located north of the Channel. The eastern boundary of the site occurs approximately 1,300 feet west of Indian Street. Topographically, the site ranges in elevation from approximately 1,502 feet above mean sea level (AMSL) in the northwest corner of the site to a low point of approximately 1,488 feet AMSL in the southeast corner of the site, with an overall topographic relief of approximately 14 feet. Thus, the site is perceived as relatively flat or gently sloping to the south under existing conditions. No trees or large rock outcroppings are located on the property.

Pursuant to CEQA Guidelines §15125, the physical environmental condition for purposes of establishing the setting on an EIR is the environment as it existed at the time the EIR's NOP was released for public review. The NOP for this EIR was released on June 13, 2011. As of that date, the Project site consisted of undeveloped land that has been routinely disked, with several dirt pathways located throughout the site (mostly near the Project boundaries). In addition, the Perris Valley Channel bisects the site near the southwestern Project boundary. This segment is designed as a trapezoidal channel with concrete side slopes and bottom near Heacock Street that transitions to a natural channel to the east. The Channel serves as a regional stormwater facility. Evidence of a former horse track that was previously present on the site can be seen from aerial photos of the site; the track no longer exists. Several utility poles also occur along the site's northern boundary (i.e., adjacent to Iris Avenue). Figure 2-4, *Aerial Photograph*, depicts the existing conditions of the Project site.

Due to the lack of development on the site under existing conditions, the Project site does not produce any source of artificial light. Artificial light sources do occur in the Project vicinity, most notably along Heacock Street and Iris Avenue, as well as existing lighting associated with the March ARB to the west and the existing residential uses located northeast of the Project site (Horowitz 2011).

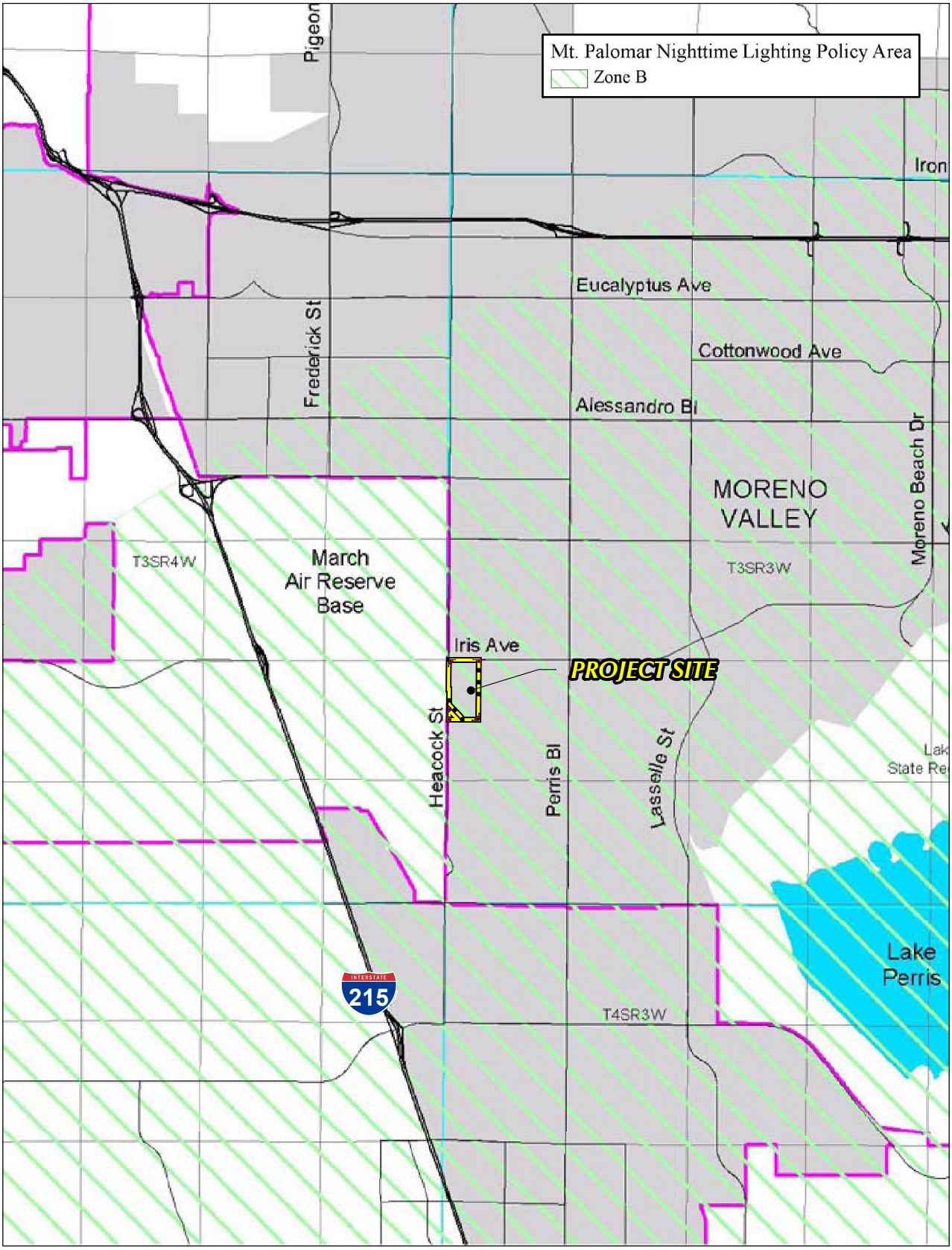
Mt. Palomar Observatory, located in the northern portion of San Diego County, has noted that the continued urbanization of southwestern Riverside County reduces the usefulness of the observatory due to emission of lighting from streetlights, automobiles, residences, and businesses (CalTech n.d.). This type of lighting condition is known as "skyglow." Properties located within a 45-mile radius of the Mount Palomar Observatory are considered to have the potential to contribute to lighting impacts at the observatory. Although the City of Moreno Valley General Plan does not address the Mt. Palomar Observatory, the proposed Project site is identified by the Riverside County General Plan as being located within a 45-mile distance of the facility, which is referred to as "Zone B" of the "Mt. Palomar Nighttime Lighting Policy Area" (Riverside County 2003a, Reche Canyon/Badlands Area Plan 33). Figure 4.1-1, *RCIP Mt. Palomar Nighttime Lighting Policy Area*, shows the proposed Project site in relation to Zone B.

The City of Moreno Valley General Plan includes policies related to development along "Scenic Routes," in addition to policies related to "View Corridors" (Moreno Valley 2006a 9-37 & 9-38). However, as shown on Figure 4.1-2, *Moreno Valley Major Scenic Resources*, the proposed Project site is not located within close proximity to any designated scenic route or view corridor.

To illustrate the existing visual conditions of the Project site in more detail, a photographic inventory has been prepared. Figure 4.1-3, *Site Photos Key Map*, depicts the locations of five (5) vantage point photographs, each of which are described below. These photographs, shown on Figure 4.1-4 and Figure 4.1-5, provide a representative visual inventory of the site's visual characteristics as seen from surrounding public viewing areas.

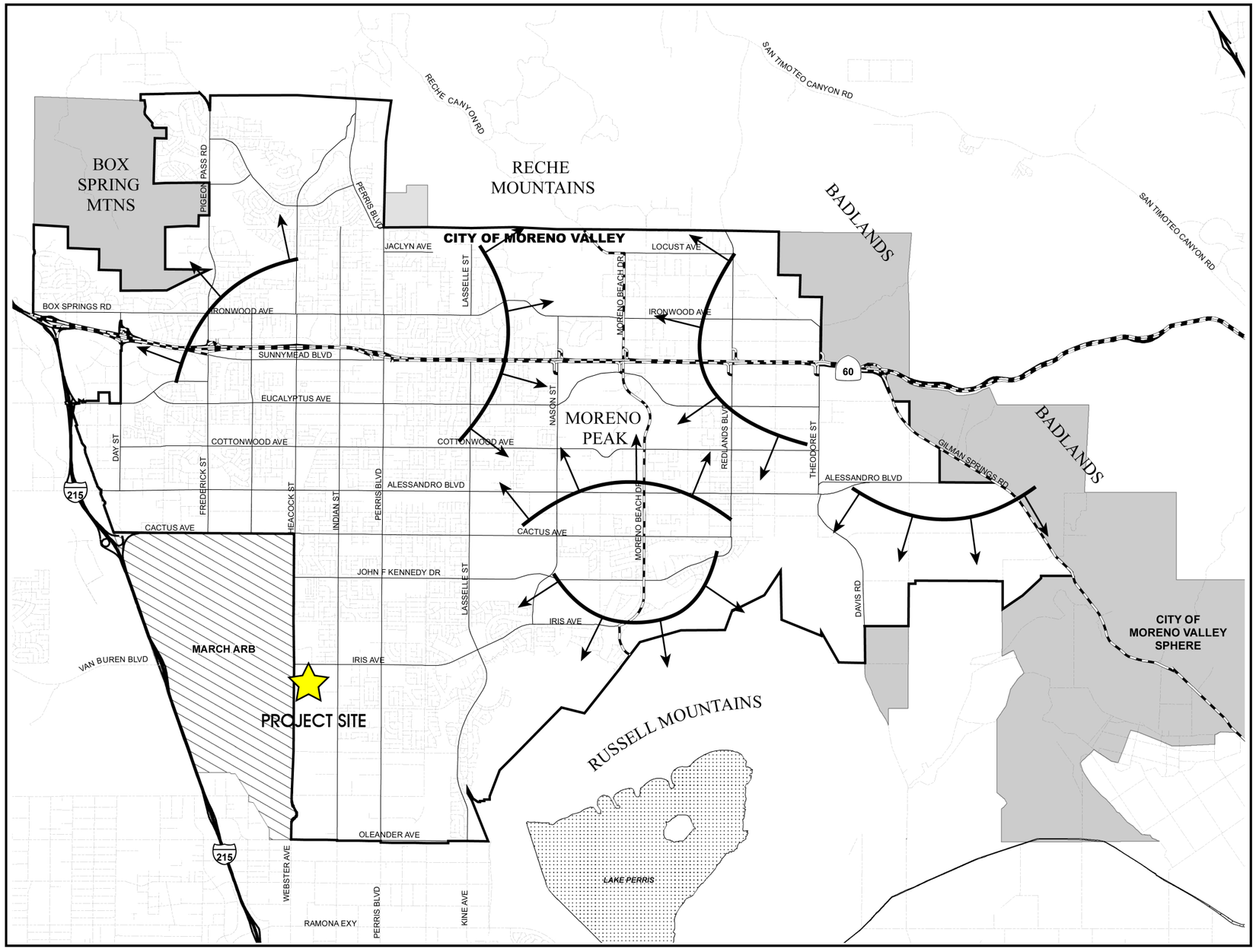
- Site Photo 1 (Figure 4.1-4): Site Photo 1 was taken from the northeastern Project boundary, looking southwest, south, and southeast along the Project's eastern boundary. Site Photo 1 depicts the Project site in the right half of the photo, while the left half of the photo depicts the property located immediately east of the Project site. As shown from this location, the Project site consists of relatively flat vacant land that has recently been disked, with ground-level vegetation occurring throughout. Along the left- and right-hand sides of this photo, disturbed and un-vegetated land and Iris Avenue are visible. Along the horizon in the left hand portion of the photo (i.e., looking off site), the hills associated with the Badlands are visible, although no prominent topographic features are visible along the horizon above the proposed Project site.

- Site Photo 2 (Figure 4.1-4): Site Photo 2 was taken from the Project's northwestern boundary, at the intersection of Iris Avenue at Heacock Street, and shows views towards the south and east. As with Site Photo 1, views of the Project site from this location depict a relatively flat site that has been recently disked with sparse ground-level vegetation. In the foreground along the left and right hand sides of the photo, disturbed un-vegetated land along the alignments of Iris Avenue and Heacock Street are visible, as are both of these roadways. In the left-hand portion of the photo in the middle ground is an existing utility pole. Along the horizon in the distance in the left portion of the photograph, the hills associated with the Badlands are visible.



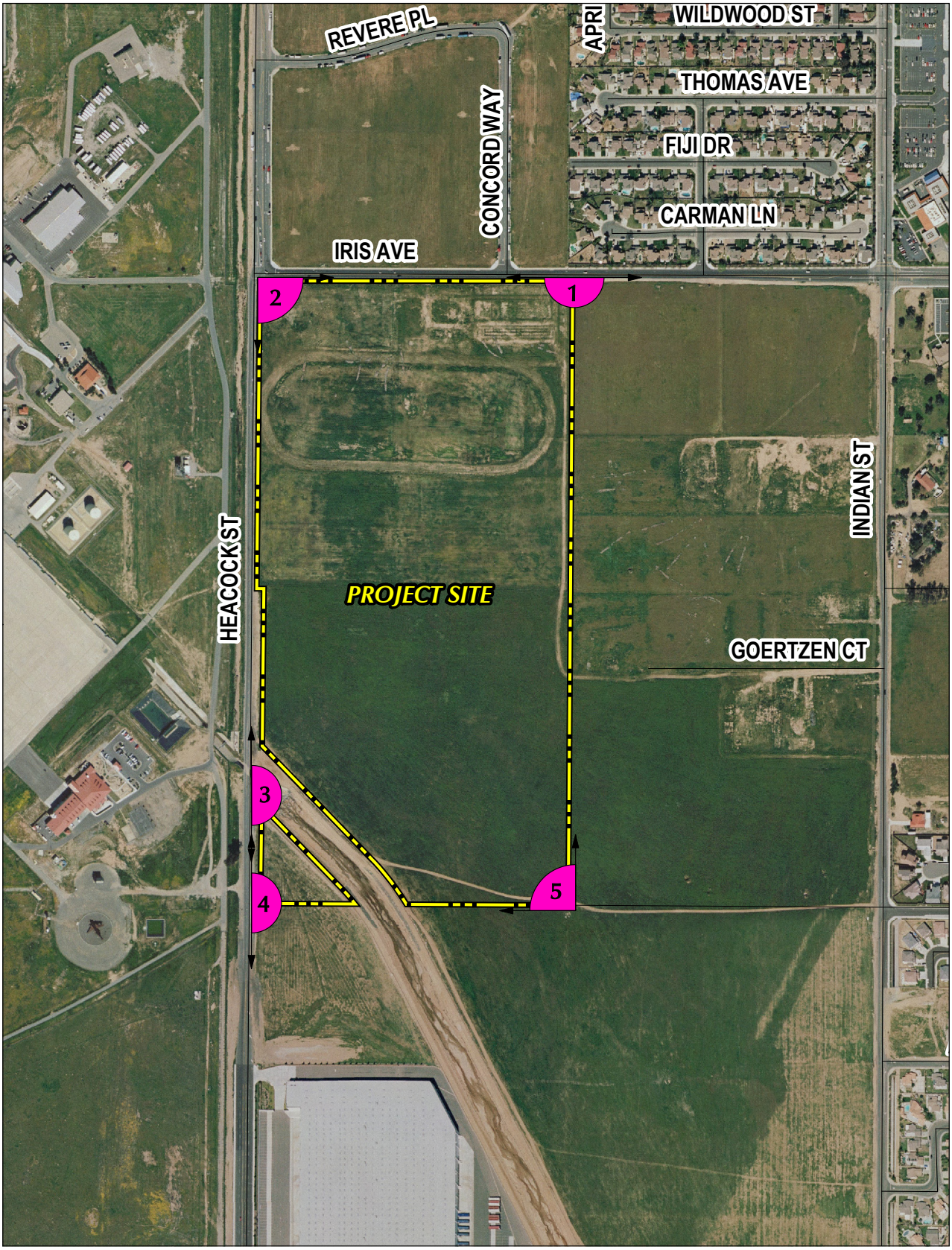
Source: RCIP

Figure 4.1-1
RCIP Mt. Palomar Nighttime Lighting Policy Area



Source: Moreno Valley General Plan

FIGURE 4.1-2
Moreno Valley Major Scenic Resources



Source: Eagle Aerial (2008), RCTLMA (2011)

0 300 600 Feet

Figure 4.1-3
Site Photos Key Map

VANTAGE POINT 1

VANTAGE POINT 2

VANTAGE POINT 3

Source: T&B Planning, Inc.

FIGURE 4.1-4
Site Photos 1 through 3

VANTAGE POINT 4

VANTAGE POINT 5

Source: T&B Planning, Inc.

FIGURE 4.1-5
Site Photos 4 and 5

- Site Photo 3 (Figure 4.1-4): Site Photo 3 was taken from the Project's western boundary, just south of the Perris Valley Channel along Heacock Street, looking north, east, and south toward the proposed Project site. From this location, the Perris Valley Channel is clearly visible in the foreground. At this location, the Perris Valley Channel is concrete lined, and transitions to a natural channel further east. Heacock Street is visible along the extreme right- and left-hand portions of the photo. In the middle ground, beyond the Perris Valley Channel, an existing dirt trail and undeveloped land with ground-level vegetation are visible. Along the horizon, the hills associated with the Badlands are visible. In the right-hand portion of this photo in the distance is an existing off-site industrial warehouse facility. Distant views of the San Bernardino Mountains and Mount San Gorgonio also are visible along the horizon.

- Site Photo 4 (Figure 4.1-5): Site Photo 4 was taken from the Project's southwestern boundary along Heacock Street, looking north, east, and south. As shown, the Project site again appears as undeveloped land that has recently been disked, with some ground-level vegetation. Along the left- and right-hand portions of this photo, Heacock Street and the un-vegetated road edge are clearly visible. In the distance, the Perris Valley Channel also is visible. Towards the right-hand portion of the photo in the distance is an existing off-site industrial warehouse facility. Along the horizon in the distance are the hills associated with the Badlands. Distant views of the San Bernardino Mountains and Mount San Gorgonio also are visible along the horizon.

- Site Photo 5 (Figure 4.1-5): Site Photo 5 was taken at the southeastern Project boundary looking northwest. The Project site is visible in the foreground of this photo as relatively flat, undeveloped land that was recently disked. In the foreground of the photo, an existing dirt path, likely associated with the Perris Valley Channel, is visible. Some debris is visible in the left-hand portion of the photograph in the foreground along the property boundary and immediately off site. Along the horizon in the left-center portion of the photo, buildings associated with the March ARB are visible. Along the horizon in the right-center portion of the photo, several existing residential developments can be seen, beyond which are hillsides associated with the Badlands and the Box Spring Mountains. Several existing off-site groves of trees also can be seen in the distance along the horizon in the extreme right-hand portion of the photo.

4.1.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to aesthetics if the Project or any Project-related component would:

1. *Have a substantial adverse effect on a scenic vista;*

2. *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;*

3. *Substantially degrade the existing visual character or quality of the site and its surroundings; or*

4. *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.*

4.1.3 IMPACT ANALYSIS

Threshold 1: Would the Project have a substantial adverse effect on a scenic vista?

As shown on Figure 2-5, Figure 4.1-4, and Figure 4.1-5, the Project site is a flat, vacant parcel of land and does not contribute to a scenic vista under existing conditions. Although distant views of the San Bernardino Badlands, and Box Spring Mountains and Mount San Gorgonio are available along the horizon from portions of the Project site and surrounding area, construction and operation of the Project as proposed, with the development of four buildings measuring up to 45.3 feet in height from the finished development pad would not substantially or adversely affect scenic views of these topographic features from off-site public viewing locations. Therefore, implementation of the proposed Project would result in a less than significant impact on scenic vistas.

Threshold 2: Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

As depicted on Figure 4.1-2, the proposed Project site is not located within close proximity to any designated Scenic Routes, including scenic highways. The nearest Scenic Route to the Project site occurs along Sunnymead Boulevard, which is located approximately 3.5 miles north of the Project site. As shown on Figure 4.1-4 and Figure 4.1-5, under existing conditions the property does not contain any scenic resources, such as trees, rock outcroppings, or historic buildings. Accordingly, implementation of the proposed Project would not substantially damage any scenic resources within a state scenic highway corridor, and a significant impact would not occur.

Threshold 3: Would the Project substantially degrade the existing visual character or quality of the site and its surroundings?

- *Construction-Related Activities*

As described in Subsection 3.3.6(A) of this EIR, the proposed Project would be constructed in two (2) phases. Phase 1 would include site preparation, all mass grading and utility installation, and construction of the proposed building on Parcel 1. Phase 2 would include construction of the proposed buildings on Parcels 2, 3, and 4. Phase 1 is estimated to last approximately 12 months and Phase 2 is estimated to last approximately 10 months. Heavy equipment would be used, which would be visible to the immediately surrounding areas during the temporary construction period. Except for the use of cranes during building construction and lifts during painting of the buildings' exterior walls, the construction equipment is expected to be low in height and not substantially visible to the surrounding area. All Project-related construction activities would occur during daytime hours as required by the City of Moreno Valley Municipal Code Chapter 11.80 and would be temporary in nature. All construction equipment would be removed from the Project site following completion of the Project's construction activities.

The temporary visibility of construction equipment and activities would not substantially degrade the visual character of the surrounding area. To the immediate south, west, and north of the Project site is March ARB (west), a vacant parcel and large industrial warehouse facility (south), and a vacant parcel approved for development of the future Moreno Valley Industrial Park (north). These parcels are industrial in nature or are vacant and planned for industrial development. The temporary

visibility of construction activities and equipment would not be substantially degrading to their industrial character.

To the east of the Project site is a vacant parcel approved for the development of Indian Business Park (PA07-0079, PA07-0080, PA07-212, PA07-0093, and PA08-0018), beyond which is a neighborhood of single-family residences, east of Indian Street. To the northeast of the Project site, north of Iris Avenue, is another neighborhood of single family detached homes. As can be seen on the aerial photograph presented as Figure 2-4, the front yards of surrounding residential uses are oriented away from the proposed Project site. Residences northeast of Iris Avenue are separated from Iris Avenue and the Project site by a solid block wall and a landscaped parkway planted with mature trees. Residences east of Indian Avenue are separated from the Project site by a solid block wall and a vacant parcel approved as the Indian Business Park. Moreover, under existing conditions, views from these existing residential neighborhoods to the west/southwest already are located in a visual environment that is partially characterized by industrial/warehouse facilities and March ARB. Temporary construction activities associated with the proposed Project, therefore, would not substantially degrade the aesthetic character or quality of the surrounding area, resulting in a less than significant aesthetic impact.

- *Project Buildout*

At buildout of the proposed Project, views of the site from the surrounding area would change from that of a predominately vacant and undeveloped site to a developed site containing business park/light industrial land uses. As part of the Project and as more fully described in EIR Section 3.0, the Project would result in the construction of four (4) buildings on the property ranging in size from 16,732 s.f. to 1,103,003 s.f. All of the proposed buildings would consist of conventional concrete tilt-up construction. Example building elevations are depicted on EIR Figure 3-16, *March Business Center Conceptual Elevations*. In addition to building construction, the site also would contain surface parking areas and drive aisles, loading docks, screen walls (measuring up to 14.0 feet in height), landscaped berms, roadway improvements, traffic controls, utility infrastructure, landscaping, water quality/detention basins, and other site improvements.

In order to determine if the proposed Project would substantially degrade the existing visual character or quality of the site and its surroundings, an analysis of the representative site photo locations was conducted. The visual character of the Project site would be altered, as described below, for the location of Site Photos 1 through 5 as representative conditions. Refer also to the conceptual building elevations (EIR Figure 3-16), the individual Plot Plans (Figures 3-12 through 3-15), and the Conceptual Landscape Plan (Figure 3-17 and 3-18) for a description of the Project's site design, architecture, and landscape plans.

- Site Photo 1 (see Figure 4.1-4): Site Photo 1 depicts views from the northeastern corner of the Project site looking east, south, and west, and affords direct views of the site's eastern and northern boundaries. As shown on EIR Figure 3-12, this portion of the Project site is proposed for development with Building 1, which is the largest of the four buildings proposed as part of the Project. With buildout of the proposed Project, foreground views from this location would include an employee/visitor parking area and landscaping, beyond which Building 1 would clearly be visible. As shown on Figure 3-16, Building 1 would consist of a tilt-up concrete building with enhanced architectural treatments occurring at the corners on the north half of the building. The enhanced architectural treatments at the

corners of the building would include off-set planes, variable heights, and the use of glazing to enhance the appearance of the building. To the right of the employee/visitor parking area and Building 1 would be a drive aisle. Both the employee/visitor parking area and drive aisle would include landscaping (trees, shrubs, and groundcover). To the left of the employee/ visitor parking area would be a series of docking bays that would be screened from public view by 14-foot tall screen walls, which in turn would be partially obscured from public viewing areas by landscaped berms measuring six feet in height. Along the perimeter of the Project site (right-hand and center of Photo 1), streetscape improvements associated with Iris Avenue and Cosmos Street would be visible, which would include a parkway that accommodates a sidewalk and landscaping (groundcover/shrubs).

- Site Photo 2 (see Figure 4.1-4): Site Photo 2 depicts views from the northwestern corner of the Project site looking south and east, and affords direct views of the site's western and northern boundaries. With buildout of the proposed Project, views from this location would be similar to those described above for Site Photo 1. The northwest corner of Building 1 would be clearly visible from this location, with the center of the view dominated by the architecturally-enhanced corner of the building (refer to Figure 3-16). In the foreground, an employee/visitor parking area would be visible, which would be enhanced with landscaping (groundcover, shrubs, and trees). To the left of Building 1 and the employee/parking area would be a drive aisle with parking that also would be landscaped. To the right of Building 1 and the employee/visitor parking area would be a loading dock area, which would be screened from view by 14-foot tall screen walls. Between the screen walls and Heacock Street would be a six-foot tall landscaped berm, which would help reduce the visual prominence of the screen wall. Along the left- and right-hand portions of the view, Heacock Street and Iris Avenue would be visible, including the construction of additional travel lanes and streetscape improvements along the Project's perimeter. Entries from Iris Avenue and Heacock Street also would be visible from this location, which would feature landscaping (ornamental trees) and enhanced paving.

- Site Photo 3 (see Figure 4.1-4): Site Photo 3 depicts views from the western Project boundary, just south of the Perris Valley Channel, looking north, east, and south along the western site boundary. With buildout of the proposed Project, this location would afford close-up views of Building 3 and Building 4 (refer to Figure 3-11), while portions of site improvements to Parcels 1 and 2 would be visible in the distance. From this location looking northeast (i.e., left-center portion of Site Photo 3), the western and southwestern faces of Building 3 would be clearly visible beyond the Perris Valley Channel and the existing chain link fencing at the perimeter of the channel. Distant views of the San Bernardino Mountains and Mount San Gorgonio would be obstructed or partially obstructed from this location due to close proximity to development associated with Buildings 3 and 4. The northwestern portion of the building would feature architectural treatments (Figure 3-16), including off-set planes, variable heights of architectural details, use of glazing, and variable colors. The southwestern portion of the building façade would appear as a typical tilt-up concrete structure with little architectural variation. To the left of Building 3, an employee/visitor parking area would be visible, along with the trees, shrubs, and groundcover proposed along the perimeter of the parking area and within the center median. Looking east from this location, distant views would be obstructed by a proposed 9-foot tall screen wall that would be constructed to screen views of the loading bays associated with Building 4. In front of the screen wall, enhanced landscaping would be provided, including magnolia and jacaranda

trees in front of the screen wall, in addition to shrubs and groundcover. Looking south and southwest from this location, and to the right of the 9-foot screen wall, Building 4 would be clearly visible. As shown on Figure 3-16, the western face of Building 4 would include an architecturally-enhanced façade, including the use of glazing, off-set planes, and variation in color. The area between Building 4 and Heacock Street would be improved with decorative landscaping, including trees, shrubs, and groundcover, in addition to streetscape improvements along Heacock Street.

- Site Photo 4 (see Figure 4.1-5): Site Photo 4 depicts views from the southwestern corner of the proposed Project site looking south, east, and north along the western and southern property lines of the site. Views from this location looking northeast would be dominated by development on Parcel 4. Looking east, a small employee/visitor parking area would be visible in the foreground, beyond which a 9-foot screen wall could be seen. Along the southern property line, a 6-foot tall chain link fence also would be visible, although this chain link fence would be partially screened by the planting of trees along the southern property line. Beyond the employee/visitor parking area and looking northeast, the southern and western facades of Building 4 would be clearly visible. As shown on Figure 3-16, the southwestern corner of Building 4 would feature enhanced architectural treatments, including off-setting planes, a canopy, variable colors, and the use of glazing. At the far left of this view, streetscape improvements associated with Heacock Street would be visible, including street trees, shrubs, groundcovers, and a curb-separated sidewalk. Distant views of the San Bernardino Mountains and Mount San Gorgonio would be obstructed or partially obstructed from this location due to close proximity to development proposed on Parcel 4.

- Site Photo 5 (see Figure 4.1-5): Site Photo 5 depicts views from the southeastern corner of the proposed Project site looking west, northwest, and north along the eastern and southern property lines of the site. With buildout of the proposed Project, views from this location would be dominated by Building 2. In the near-ground, a driveway access into Parcel 2 would be visible, which would feature enhanced paving and landscaping (i.e., decorative trees and groundcover). In the left-hand portion of the view, a 6-foot wrought iron gate would be visible to the left of Building 2, with a 6-foot wrought iron fence that transitions to a 6-foot chain link fence along the southern property line. In the center of this view, the southwestern corner Building 2 would be clearly visible, which would include enhanced architectural treatments including off-setting planes, use of glazing, and variable colors. To the right of Building 2 would be a drive aisle with employee/visitor parking. This parking area would be landscaped with a variety of trees, shrubs, and groundcover. In the right-hand portion of the view, streetscape improvements along realigned Krameria Avenue would be visible, including a curb-adjacent sidewalk and street trees with shrubs and groundcover.

As indicated in the above descriptions, buildout of the proposed Project would change the existing visual character of the Project site from undeveloped land to that of a business park/light industrial development consisting of four buildings and associated improvements. Although the aesthetic changes would be substantial compared to existing conditions, the Project incorporates a number of features intended to soften the visual prominence of the Project. In addition to enhanced architectural treatments and use of landscaping, the Project also incorporates 9- to 14-foot tall screening walls to screen loading and docking bays from public view. The visual prominence of these screening walls would be reduced through the incorporation of 6-foot tall berms in front of the 14-foot walls, and the installation of landscaping (trees, shrubs, and groundcover) in front of the

walls. These visual features of the proposed development would help ensure a high-quality visual character for the site, consistent with the aesthetic character called for by the City of Moreno Valley's Moreno Valley Industrial Area Plan (MVIAP) (City of Moreno Valley 2002). Therefore, based on the foregoing analysis, implementation of the proposed Project would not result in any significant adverse impacts to the visual character or quality of the Project site.

With respect to the visual character and quality of the surrounding area, the proposed Project would be visually compatible with the existing industrial warehousing use to the south of the Project site, and would be similar in character to proposed business park/light industrial uses proposed in the undeveloped portions of the MVIAP (i.e., to the north, east and southeast). The proposed Project also would not conflict with the existing visual character of the adjacent March ARB, which features buildings and structures associated with industrial and/or airport operations.

Land uses to the northeast of the Project site (i.e., northeast of the intersection of Concord Way and Iris Avenue) and to the east of the Project site (i.e., east of Indian Street) consist of existing residential uses, which exhibit the greatest potential to be impacted by the visual quality/character of the proposed Project. The location of Site Photo 1 depicts a representative viewpoint for these existing residential neighborhoods. As described above, views from the location of Site Photo 1 would include the landscaped employee/visitor parking area at the northeast corner of the Project, the northeast corner of Building 1, and the 14-foot screen wall with a 6-foot berm in front of the screen wall where it is planned to abut the public right-of-way. This portion of the Project site would be treated with decorative landscaping, including the use of trees, shrubs, and groundcover, which would serve to soften the visual prominence of the screen wall, parking area, and Building 1. Based on these design features, the Project would be constructed to the aesthetic quality called for by the MVIAP and would not degrade the visual character of its surroundings. Additionally, note that the residences located east of Indian Street would not have a direct view of the Project after construction of the Indian Business Park (PA07-0079, PA07-0080, PA07-212, PA07-0093, and PA08-0018), which is approved by the City of Moreno Valley to occur directly east of the Project site, between the proposed Project and the residences east of Indian Street.

As noted previously, implementation of the proposed Project would represent a substantial change to the existing visual character of the site. However, and as can be seen on the aerial photograph presented as Figure 2-4, the front yards of all of the existing residential uses are oriented away from the proposed Project site, or would not have direct views of the Project site due to intervening development or solid screen walls. Moreover, under existing conditions, views from these existing residential neighborhoods to the west/southwest already are located in a visual environment that is partially characterized by industrial/warehouse facilities and by buildings and facilities associated with the March ARB. In addition, land use compatibility was addressed as part of the MVIAP (City of Moreno Valley 2002), which notes that "…the presence of a road [e.g., Iris Avenue and Indian Street]…acts as a significant buffer" and serves to address land use compatibility issues between the residential uses and proposed business park/light industrial land uses within the Area Plan. The MVIAP also specifies a "300' Residential Buffer," as shown on EIR Figure 2-3, which requires the maintenance of a 300-foot buffer between industrial and residential buildings; light industrial buildings proposed on site would not occur in the buffer zone. Therefore, in conclusion, based on the limited visibility of the site from individual residences, the generally higher quality buildings and landscaping elements proposed by the Project, and the presence of intervening major roadways that would serve as visual separators, implementation of the proposed Project would have a less than significant impact to the visual character of existing residential neighborhoods.

Threshold 4: Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area

The MVIAP includes standards for lighting within the Area Plan as follows:

> *Exterior light fixtures shall be designed and placed so as not to provide light spillage on adjacent properties or public rights-or-way. The use of "full cut off' fixtures should be used adjacent to the MARB/MIP to reduce nighttime glare towards the flight line* (City of Moreno Valley, 2002).

In addition, City Ordinance No. 359 addresses light and glare, and requires the following:

> *No operation, activity, sign or lighting fixture shall create illumination which exceeds 0.5 footcandles minimum maintained on any adjacent property, whether the illumination is direct or indirect light from the source. All lighting shall be designed to project downward and shall not create glare on adjacent properties* (City of Moreno Valley n.d.).

The proposed Project has been designed to adhere to the requirements of both Ordinance No. 359 and the MVIAP, and future implementing projects (i.e., building permits) would be required to demonstrate compliance with these standards. Compliance would ensure that the proposed Project does not produce substantial amounts of light or glare affecting the day or nighttime views of adjacent properties.

With respect to daytime glare impacts that could result from reflective building materials, the proposed Project would involve the construction and operation of four buildings. The majority of the exterior building surfaces would consist of tilt-up concrete construction that does not include any materials with a potential to produce substantial amounts of glare. Along the visually prominent corners of each of the buildings, enhanced architecture would be provided, including the use of glazing (glass). While glazing has a potential to result in glare effects, such effects would not adversely affect the daytime views of any surrounding properties, including motorists along adjacent roadways and the March ARB because the glass would not be mirrored. Additionally, not only would areas proposed for glazing be limited to the corners of and main entrances to the buildings, but such glazing would be screened from public view by the screen walls and landscaping proposed along the Project's perimeter. Accordingly, significant daytime glare impacts would not occur.

As noted previously, the proposed Project site is located within a 45-mile radius of the Mount Palomar Observatory. Although not addressed by the City of Moreno Valley's General Plan, any development Project within a 45-mile radius of the observatory that would add artificial light sources has the potential to contribute to skyglow effects, which could adversely affect operations at the observatory. An individual development project such as the proposed Project that is located approximately 43 miles from the observatory and required to comply with City of Moreno Valley Ordinance No. 359 to prevent light spillage and use full cut off' fixtures has no potential to directly impact nighttime observations at the observatory.

4.1.4 CUMULATIVE IMPACT ANALYSIS

As noted under the discussion of Threshold 1, the Project site does not offer any prominent scenic vistas under existing conditions. Views from the Project area to the Badlands Mountains and Box

Spring Mountains are available in the Project area, but such views are available throughout the City of Moreno Valley. Additionally, and as shown on Figure 4.1-2, the City of Moreno Valley General Plan General Plan does not identify any scenic routes or view corridors within close proximity of the Project site. With buildout of the proposed Project and other developments within the Project's viewshed, which would include buildout of the MVIAP and surrounding areas, there would be no significant adverse impact to any existing scenic vistas. This conclusion is consistent with the City of Moreno Valley's General Plan EIR (City of Moreno Valley 2006b 5.11-5), which concluded that buildout of the City in accordance with its General Plan would not have any significant direct or cumulative impact to local or regional aesthetics with enforcement of the City's General Plan and Specific Plans. As previously stated (and more thoroughly discussed in Subsection 4.9, Land Use and Planning), the proposed Project is consistent with the City's General Plan and MVIAP (Specific Plan 208). Accordingly, a cumulatively significant impact to scenic vistas would not occur with buildout of the proposed Project.

As noted under the analysis of Threshold 2, the Project site is not located within close proximity to any designated Scenic Routes and does not contain any scenic resources under existing conditions, including, but not limited to, trees, rock outcroppings, and historic buildings. Therefore, the proposed Project has no potential directly impact a scenic resource or to contribute to a cumulatively significant scenic resource impact.

With respect to visual quality and character of the site and surrounding area, under cumulative conditions the geographic area of the MVIAP would be fully built-out with business park/light industrial land uses. As with the proposed Project, uses within the MVIAP would be subject to the development regulations and design standards contained in the MVIAP. Mandatory compliance to these development regulations and design standards would ensure that the business park/light industrial development within the remaining undeveloped portions of the MVIAP would incorporate high quality building materials, site design, and landscaping so as to minimize the potential for adverse effects associated with visual quality and character (City of Moreno Valley 2002). Moreover, the greatest potential for impacts to visual quality/character that could result from construction or buildout of the MVIAP is potential impacts to the existing residential neighborhoods located to the northeast and east of the MVIAP area. However, and as noted above under the analysis of Threshold 3, under existing conditions these residential areas are oriented away from the Project site. Additionally, with buildout of the MVIAP, existing westward views from these residential areas would change from that of an open field beyond which is the March ARB, to that of a business park/light industrial development with perimeter landscaping. The buildings that would be constructed on the Project site and within the MVIAP would display the aesthetic qualities required by the MVAIP and which have been incorporated into the proposed Project's design as described in Section 3.0, Project Description. As such, the Project would not considerably contribute to an adverse cumulative impact to the existing visual character or quality of the Project site or its surroundings.

With respect to potential cumulative light and glare impacts, City of Moreno Valley Ordinance No. 359 prohibits lighting from impacting adjacent properties, and sets a limit of 0.5 footcandles on the maximum amount of "spill over" lighting that can directly or indirectly affect adjacent properties (City of Moreno Valley n.d.). Similarly, the County of Riverside and cities in the surrounding area enforce light pollution regulations (Riverside County Ord. 655, City of Perris Zoning Ord. Sec. 19.01 *et. seq*., City of Riverside Municipal Code Sec. 19.590.070). As noted previously, the proposed Project site is located within a 45-mile radius of the Mount Palomar Observatory. Although not

addressed by the City's General Plan, the proposed Project nonetheless has the potential to contribute to skyglow effects when considered in the context of other developments within the City of Moreno Valley. As noted above, all development with artificial light sources located within the City of Moreno Valley are required to comply with Ordinance No. 359. The restriction on "spill over" lighting enforced by Ordinance No. 359 also has the effect of minimizing light and glare that would create skyglow. Additionally, development projects with artificial light sources in surrounding jurisdictions would be required to comply with the light reduction requirements applicable in their respective jurisdiction. Therefore, because City of Moreno Valley Ordinance No. 359 and the light control regulations of other jurisdictions within the 45-mile radius of the Observatory would minimize the amount of skyglow that could affect nighttime operations at the observatory, and the proposed Project is mandated to comply with the City's Ordinance No. 359, the Project's contribution to skyglow impacts to the Mt. Palomar Observatory are determined to be less than cumulatively considerable.

4.1.5 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Compliance with these measures was assumed throughout the above analysis of aesthetics.

PR 4.1-1 The Project is required to comply with City of Moreno Valley Ordinance No. 359, which addresses artificial lighting and glare.

PR 4.1-2 The Project is required to comply with all applicable development regulations and design standards of the Moreno Valley Industrial Area Plan, including standards related to the design of artificial lighting contained within Section III, *Development Standards and Guidelines*, and Section IV, *Development Framework*.

4.1.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: Less than Significant Impact. The Project would not significantly impact a scenic vista. The Project site does not contain any scenic vistas, nor does it offer unique views of any visually prominent features; therefore, impacts to scenic vistas would be less than significant.

Threshold 2: No Impact. The Project has no potential to damage scenic resources within a scenic highway corridor. The Project site is not located within the viewshed of a scenic highway and the Project site does not contain any scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings. Accordingly, a significant impact to scenic resources within a state scenic highway has no potential to occur.

Threshold 3: Less than Significant Impact. The Project would not substantially degrade the existing visual character or quality of the site or its surrounding areas during Project construction or operation. Although the proposed Project would result in a change to the existing visual character of the site (i.e., from undeveloped land to a light industrial business center), the Project incorporates a number of site design, architectural, and landscaping elements consistent with the requirements of the MVIAP that would ensure the provision of a high quality development. Impacts would be less than significant.

Threshold 4: Less than Significant Impact. The Project would not create substantial light or glare. Compliance with the MVIAP requirements for lighting and mandatory compliance with City of

Moreno Valley Ordinance No. 359 would ensure less than significant impacts associated with light and glare affecting day or nighttime views in the area.

4.1.7 MITIGATION

Impacts would not be significant; therefore, mitigation measures would not be required.

4.2 AIR QUALITY

This subsection is based on two technical studies that were prepared by Urban Crossroads, Inc. to evaluate the Project's potential to adversely affect local and regional air quality. These studies include the following: 1) "March Business Center Air Quality Impact Analysis" (October 31, 2011), which is included as *Technical Appendix B1* to this EIR (Urban Crossroads 2011a); and 2) "March Business Center Mobile Source Health Risk Assessment" (August 9, 2012), which is included as *Technical Appendix B2* to this EIR (Urban Crossroads 2012). In addition, information used to support the analysis in this subsection was obtained from the City of Moreno Valley General Plan (Moreno Valley 2006a).

4.2.1 EXISTING CONDITIONS

A. Atmospheric Setting

The Project site is located in the South Coast Air Basin (SCAB, or "Basin") which is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAB encompasses approximately 6,745 square miles and includes Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The SCAB is bound by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east, respectively; and the San Diego County line to the south (Urban Crossroads 2011a 12).

B. Regional Climate and Meteorology

The regional climate – temperature, wind, humidity, precipitation, and the amount of sunshine – has a substantial influence on air quality. The distinctive climate of the SCAB is determined by its terrain and geographical location, which comprises a coastal plain connected to broad valleys and low hills and surrounded by the Pacific Ocean and high mountains. The annual average temperatures throughout the SCAB vary from the low to middle 60s, measured in degrees Fahrenheit. Inland areas in the SCAB, like where the Project site is located, show more variability in annual minimum and maximum temperatures than coastal areas within the SCAB due to a decreased marine influence (Urban Crossroads 2011a 12-13).

The climate of the SCAB is characterized as semi-arid; however, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB and the relative high humidity also heightens the conversion of sulfur dioxide to sulfates. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71% along the coast and 59% inland (Urban Crossroads 2011a 13).

Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year there are approximately 10 hours of possible sunshine, and on the longest day of the year there are approximately 14 1/2 hours of possible sunshine (Urban Crossroads 2011a 13).

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution, as the direction and speed of wind patterns determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows

associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the SCAB is the "Catalina Eddy," a low level cyclonic (counter-clockwise) flow centered over Santa Catalina Island which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections. In the Project area, the prevailing winds move predominately from the northwest to the southeast and southeast to northwest (Urban Crossroads 2011a 13-15)

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level (Urban Crossroads 2011a 14).

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as NO_X and CO from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline (Urban Crossroads 2011a 14).

C. Air Quality Pollutants and Associated Health Effects

The federal government and State of California have established maximum permissible concentrations for common air pollutants that may pose a risk to human health or would otherwise degrade air quality and adversely affect the environment. These regulated air pollutants are referred to as "criteria pollutants." An overview of the common criteria air pollutants in the SCAB, their sources, and associated effects to human health are summarized on the following pages.

- Carbon Monoxide (CO) is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest in the winter during the morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. CO is emitted directly from internal combustion engines; therefore, motor vehicles operating at slow speeds are the primary source of CO in the SCAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections (Urban Crossroads 2011a 18).

CO combines with hemoglobin to produce carboxyhemoglobin (COHb), which interferes with the transport of oxygen throughout the body. The most common symptoms associated with CO poisoning include headache, nausea, vomiting, dizziness, fatigue, and weakness. Exposure to CO can also result in chest pain. Individuals most at risk to the effects of CO include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic oxygen deficiency (Urban Crossroads 2011a 21).

- Sulfur Dioxide (SO_2) is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms sulfates (SO_4). Collectively, these pollutants are referred to as sulfur oxides (SO_X) (Urban Crossroads 2011a 19).

  SO_2 is a respiratory irritant to people afflicted with asthma. After a few minutes exposure to low levels of SO_2, asthma sufferers can experience breathing difficulties, including airway constriction, resistance to air flow, and reduction in breathing capacity. Although healthy individuals do not exhibit similar acute breathing difficulties in response to SO_2 exposure at low levels, animal studies suggest that very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract (Urban Crossroads 2011a 25).

- Nitrogen Oxides (NO_X) consist of nitric oxide (NO), nitrogen dioxide (NO_2) and nitrous oxide (N_2O) and are formed when nitrogen (N_2) combines with oxygen (O_2). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO_2 absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the nitrogen oxide compounds, NO_2 is the most abundant in the atmosphere. As ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by regional monitoring stations (Urban Crossroads 2011a 19).

  Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO_X. Short-term exposure to NO_X can result in resistance to air flow and airway contraction in healthy subjects. Exposure to NO_X can result in larger decreases in lung functions in individuals with asthma or chronic obstructive pulmonary diseases (e.g., chronic bronchitis, emphysema), as these individual are more susceptible to the effects of NO_X than healthy individuals (Urban Crossroads 2011a 24-25).

- Ozone (O_3) is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_X) – both byproducts of internal combustion engine exhaust – undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, warm temperatures, and light wind conditions are favorable to the formation of this pollutant (Urban Crossroads 2011a 19).

  Short-term exposure (lasting for a few hours) to ozone at levels typically observed in southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes.

Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for ozone effects. An increased risk for asthma has been found in children who participate in multiple sports and live in communities with high ozone levels (Urban Crossroads 2011a 21).

- Particulate Matter is a major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. Particles less than 10 microns or smaller (PM_{10}) easily become airborne and can reduce visibility. Particles less than 2.5 microns or smaller ($PM_{2.5}$) are formed in the atmosphere by sulfates or nitrates, a byproduct of primary gaseous emissions of SO_2 and NO_X (Urban Crossroads 2011a 19-20).

  Elevated ambient concentrations of fine particulate matter (PM_{10} and $PM_{2.5}$) have been linked to respiratory infections, number and severity of asthma attacks, and increased hospital admissions. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer. Daily fluctuations in $PM_{2.5}$ concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long-term exposure to particulate matter. The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM_{10} and $PM_{2.5}$ (Urban Crossroads 2011a 24).

- Volatile Organic Compounds (VOCs) and Reactive Organic Gasses (ROGs) are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. Both VOCs and ROGs are precursors to ozone and contribute to the formation of smog through atmospheric photochemical reactions. VOCs and ROGs have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs often have an odor, including such common VOCs as gasoline, alcohol, and the solvents used in paints (Urban Crossroads 2011a 20).

  Odors generated by VOCs can irritate the eye, nose, and throat, which can reduce respiratory volume. In addition, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system (Urban Crossroads 2011a 26).

- Lead (Pb) is a heavy metal that is highly persistent in the environment. Historically, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. As a result of the removal of lead from gasoline, there have been no violations at any of the SCAQMD's regular air monitoring stations since 1982. Currently, emissions of lead are largely limited to stationary sources such as lead smelters (Urban Crossroads 2011a 20).

  Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures, and death.

Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure (Urban Crossroads 2011a 25-26).

D. Existing Air Quality

The quality of the air is measured based upon ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect, as well health effects of each pollutant regulated under these standards are shown in Table 4.2-1, *State and National Criteria Pollutant Standards, Effects, and Sources*.

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards presented in Table 4.2-1. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for ozone (O_3), carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), inhalable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$) are not equaled or exceeded at any time in any consecutive three-year period; and the federal standards (other than O_3, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not exceeded more than once per year. The ozone standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when 99% of the daily concentrations, averaged over three years, are equal to or less than the standard (Urban Crossroads 2011a 15).

❑ Regional Air Quality

The SCAQMD monitors levels of various criteria air pollutants at 40 permanent monitoring stations throughout its jurisdiction. In 2009, the most recent year for which detailed data is available, the federal and state standards for ozone PM_{10} and $PM_{2.5}$ were exceeded on at least one day at most monitoring locations within the SCAB. Measured levels of NO_2, SO_2, CO, sulfates and lead within the SCAB did not exceed Federal and state standards in 2009 (Urban Crossroads 2011a 18). The attainment status for criteria pollutants within the SCAB is summarized on Table 4.2-2, *Attainment Status of Criteria Air Pollutants in the South Coast Air Basin (SCAB).*

❑ Local Air Quality

The nearest long-term air quality monitoring station to the Project site for ozone and PM_{10} is the Redlands monitoring station, located approximately 13.3 miles northeast of the Project site. The nearest long-term air quality monitoring station to the Project site for CO, NO_2, and $PM_{2.5}$ is the San Bernardino monitoring station, located approximately 15.5 miles northwest of the Project site. The San Bernardino monitoring station was utilized in lieu of the Redlands monitoring station only in instances where data was not available from the Redlands site (i.e., long-term CO, NO_2, and $PM_{2.5}$ concentration levels). Data for SO_2 concentrations has been omitted, as attainment of applicable federal and state for this criteria pollutant is routinely met in the SCAB and there are few monitoring stations that measure SO_2 concentrations (Urban Crossroads 2011a 18). Table 4.2-3, *Project Area Air Quality Monitoring Summary*, provides a summary of ambient air quality conditions in the general vicinity of the Project site over the most recent three (3)-year period for which air quality data is available (i.e., 2007-2009).

Table 4.2-1 State and National Criteria Pollutant Standards, Effects, and Sources

POLLUTANT	AVERAGING TIME	STATE STANDARD	NATIONAL STANDARD	HEALTH AND ATMOSPHERIC EFFECTS	MAJOR SOURCES
Ozone	1 hour 8 hours	0.09 ppm 0.07 ppm1	--- 0.075 ppm	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Formed when reactive organic gases (ROG) and nitrogen oxides (NO_X) react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial / industrial mobile equipment.
Carbon Monoxide	1 hour 8 hours	20 ppm 9.0 ppm	35 ppm 9 ppm	Classified as a chemical asphyxiant, carbon monoxide interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
Nitrogen Dioxide	1 hour Annual Avg.	0.18 ppm 0.030	--- 0.053 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.
Sulfur Dioxide	1 hour 3 hours 24 hours	0.25 ppm --- 0.04 ppm	75 ppb --- ---	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
Inhalable Particulate Matter (PM-10)	24 hours Annual Avg.	50 µg/m3 20 µg/m3	150 µg/m3 ---	May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
Fine Particulate Matter (PM-2.5)	24 hours Annual Avg.	--- 12 µg/m3	35 µg/m3 15 µg/m3	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and results in surface soiling.	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning; Also, formed from photochemical reactions of other pollutants, including NO_X, sulfur oxides, and organics.
Lead	Monthly Ave. Quarterly Rolling 3-Month Avg.	1.5 µg/m3 --- ---	--- 1.5 µg/m3 0.15 µg/m3	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurological dysfunction.	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
Hydrogen Sulfide	1 hour	0.03 ppm	No National Standard	Nuisance odor (rotten egg smell), headache, and breathing difficulties (higher concentrations)	Geothermal Power Plants, Petroleum Production and refining
Sulfates	24 hour	25 µg/m^3	No National Standard	Breathing difficulties, aggravates asthma, reduced visibility	Produced by the reaction in the air of SO_2.
Visibility Reducing Particles	8 hour	Light extinction of 0.23/km; visibility of 10 miles or more	No National Standard	Reduces visibility, reduced airport safety, lower real estate value, discourages tourism.	See PM_{10}/$PM_{2.5}$.

NOTE: ppm = parts per million; µg/m^3 = micrograms per cubic meter.
1. This concentration was approved by the Air Resources Board on April 28, 2005 and became effective May 17, 2006.
Source: Urban Crossroads 2011a, Table 2-1.

Table 4.2-2 Attainment Status of Criteria Pollutants in the South Coast Air Basin (SCAB)

CRITERIA POLLUTANT	STATE DESIGNATION	FEDERAL DESIGNATION
Ozone - 1hour standard	Nonattainment	No Standard
Ozone - 8 hour standard	Nonattainment	Extreme Nonattainment[1]
PM_{10}	Nonattainment	Serious Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Attainment/Maintenance
Nitrogen Dioxide	Nonattainment[2]	Attainment/Maintenance
Sulfur Dioxide	Attainment	Attainment
Lead	Attainment/Nonattainment[3]	Attainment/Nonattainment[4]
All others	Attainment/Unclassified	Attainment/Unclassified

1. The USEPA approved re-designation from Severe 17 to Extreme Nonattainment on May 5, 2010 to be effective June 4, 2010.
2. The SCAB was reclassified from attainment to nonattainment for nitrogen dioxide on March 25, 2010.
3. Los Angeles County portion of the SCAB was reclassified from attainment to nonattainment for lead on March 25, 2010; the remainder of the SCAB is in attainment of the State Standard.
4. The Los Angeles County portion of the SCAB is classified as nonattainment; the remainder of the SCAB is in attainment of the State Standard.

Source: Urban Crossroads 2011a, Table 2-2.

❑ Air Quality Conditions at Project Site

The Project site is vacant under existing conditions and, therefore, does not generate quantifiable emissions. Maintenance activities at the Project site (i.e., disking) may generate temporary fugitive dust emissions (PM_{10} and $PM_{2.5}$); however, since detailed information is not available and given the infrequent and intermittent nature of site maintenance activities, temporary fugitive dust emissions that may be generated during site maintenance activities cannot be accurately calculated and would be speculative in nature. Absent additional information, existing air quality conditions at the Project site would likely be similar to local ambient conditions (presented in Table 4.2-3).

E. Applicable Environmental Regulations

The following is a brief description of the federal, state, and local environmental laws and related regulations governing air quality emissions.

❑ Federal Regulations

The U.S. Environmental Protection Agency (EPA) is responsible for setting and enforcing the NAAQS for O_3, CO, NO_X, SO_2, PM_{10}, and lead. The U.S. EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The U.S. EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the National Ambient Air Quality Standards (NAAQS), and specifies future dates for achieving compliance. The CAA also mandates that states submit and implement State

Implementation Plans (SIPs) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

Table 4.2-3 Project Area Air Quality Monitoring Summary

POLLUTANT	STANDARD	YEAR		
		2007	2008	2009
Ozone (O_3)[a]				
Maximum 1-Hour Concentration (ppm)	--	0.139	0.142	0.125
Maximum 8-Hour Concentration (ppm)	--	0.116	0.114	0.108
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	66	65	53
Number of Days Exceeding State 8-Hour Standard	> 0.07 ppm	88	94	88
Number of Days Exceeding Federal 1-Hour Standard	> 0.12 ppm	4	4	1
Number of Days Exceeding Federal 8-Hour Standard	> 0.075 ppm	73	77	67
Number of Days Exceeding Health Advisory	≥ 0.15 ppm	0	0	0
Carbon Monoxide (CO)[b]				
Maximum 1-Hour Concentration (ppm)	--	4	7	3
Maximum 8-Hour Concentration (ppm)	--	2.1	2	1.8
Number of Days Exceeding State 1-Hour Standard	> 20 ppm	0	0	0
Number of Days Exceeding Federal / State 8-Hour Standard	> 9.0 ppm	0	0	0
Number of Days Exceeding Federal 1-Hour Standard	> 35 ppm	0	0	0
Nitrogen Dioxide (NO_2)[b,c]				
Maximum 1-Hour Concentration (ppm)	--	0.07	0.09	0.08
Annual Arithmetic Mean Concentration (ppm)	--	0.0206	0.0258	0.0200
Number of Days Exceeding State 1-Hour Standard	> 0.18[c] ppm	0	0	0
Inhalable Particulates (PM_{10})[a]				
Maximum 24-Hour Concentration (µg/m^3)	--	120	85	80
Number of Samples	--	57	45	58
Number of Samples Exceeding State Standard	> 50 µg/m^3	32	35	9
Number of Samples Exceeding Federal Standard	> 150 µg/m^3	0	0	0
Ultra-Fine Particulates ($PM_{2.5}$)[b]				
Maximum 24-Hour Concentration (µg/m^3)	--	68.6	43.0	42.2
Annual Arithmetic Mean (µg/m^3)	--	18.1	13.4	13.4
Number of Samples Exceeding Federal 24-Hour Standard	> 35[d] µg/m^3	8	4	2

a Perris Monitoring Station (SRA 24) data.
b Metropolitan Riverside County 2 (SRA 32/Magnolia) data.
c Metropolitan Riverside County 1 (SRA 23/Rubidoux) data only for year 2007.
d CARB has revised the NO_2 1-hour state standard from 0.25 ppm to 0.18 ppm, effective March 20, 2008.
e U.S. EPA has revised the federal 24-hour $PM_{2.5}$ standard from 65 µg/m^3 to 35 µg/m^3, effective December 17, 2006.
Source: Urban Crossroads 2011a, Table 2-3.

The 1990 amendments to the CAA, that identify specific emission reduction goals for areas not meeting the NAAQS, require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions).

Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants: O_3, NO_2, SO_2, PM_{10}, CO, $PM_{2.5}$, and lead. The NAAQS were amended in July 1997 to include an additional standard for O_3 and to adopt a NAAQS for $PM_{2.5}$. Table 4.2-1 provides the NAAQS within the SCAB.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and nitrogen oxides (NO_X). NO_X is a collective term that includes all forms of nitrogen oxides (NO, NO_2, NO_3) which are emitted as byproducts of the combustion process.

❑ California Regulations

The California Air Resources Board (CARB), which became part of the California EPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. The California CAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. The CARB established the California Ambient Air Quality Standards (CAAQS) for all pollutants for which the federal government has NAAQS and, in addition, established standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. However at this time, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the SCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS.

Local air quality management districts, such as the SCAQMD, regulate air emissions from commercial and light industrial facilities. All air pollution control districts have been formally designated as being in attainment or non-attainment for each CAAQS (refer to Table 4.2-2).

Serious non-attainment areas are required to prepare air quality management plans that include specified emission reduction strategies in an effort to meet clean air goals. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than 5% per year under certain circumstances.

❑ Air Quality Management Planning

The Project site is located within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD was created by the 1977 Lewis Presley Air Quality Management Act, which merged four (4) county air pollution control bodies into one regional district. Pursuant to the Act, the SCAQMD is responsible for bringing air quality within the areas under its jurisdiction into conformity with federal and state air quality standards.

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, and in conformance with California Health & Safety Code §40702 et seq. and the California Clean Air Act, the SCAQMD has adopted an Air Quality Management Plan (AQMP) to plan for the regional improvement of air quality. AQMPs are updated regularly in order to more effectively reduce emissions and accommodate growth. Each version of the plan is an update of the previous plan and has a 20-year horizon with a revised baseline. The SCAQMD Governing Board adopted its most recent AQMP on June 1, 2007. SCAQMD is in the process of developing its newest AQMP for the SCAB, the 2012 AQMP. The 2012 AQMP was not available for public review as of the writing of this EIR.

4.2.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to air quality if the Project or any Project-related component would:

1. *Conflict with or obstruct implementation of the applicable air quality plan;*

2. *Violate any air quality standard or contribute substantially to an existing or projected air quality violation;*

3. *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);*

4. *Expose sensitive receptors to substantial pollutant concentrations; or*

5. *Create objectionable odors affecting a substantial number of people.*

Within the context of the above threshold considerations, emissions generated by a development project would be significant under Thresholds 2 and 3 if they exceeded the regional thresholds established by the SCAQMD for criteria pollutants and would be significant pursuant to Threshold 4 if they exceeded the localized thresholds established by the State of California and the SCAQMD for criteria pollutants. The criteria applicable to the proposed Project are summarized in Table 4.2-4, *Regional and Localized Thresholds for Criteria Pollutants*. Pursuant to SCAQMD guidance, any project in the SCAB with daily emissions that would exceed any of the thresholds summarized in Table 4.2-4 would be considered as having a significant impact to air quality on both a direct (individual) and cumulative basis (Urban Crossroads 2011a 29-30).

Table 4.2-4 Regional and Localized Thresholds for Criteria Pollutants

POLLUTANT	CONSTRUCTION	OPERATIONAL
Maximum Daily Emissions (Regional Thresholds)		
NO_X	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_X	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Ambient Air Quality for Criteria Pollutants (Localized Thresholds)		
NO_2 (1-hour average)	0.18 ppm	0.18 ppm
PM_{10} (24-hour average)	10.40 µg/m^3	2.50 µg/m^3
$PM_{2.5}$ (24-hour average)	10.40 µg/m^3	2.50 µg/m^3
CO (1-hour average)	20 ppm	20 ppm
CO (8-hour average)	9 ppm	9 ppm

NOTE: ppm = parts per million; µg/m3 = micrograms per cubic meter.
Source: Urban Crossroads 2011a, Table 3-1, pp. 45 & 48.

In addition, pursuant to the thresholds established by the SCAQMD, any project that would emit toxic air contaminants, like diesel particulate matter, and expose receptor populations to an incremental cancer risk of greater than 10 in one million would be evaluated as having a significant impact to air quality under Threshold 4 (Urban Crossroads 2012 18).

4.2.3 IMPACT ANALYSIS

A. Methodology for Estimating Project-Related Construction Emissions

❑ Maximum Daily Emissions

The California Emissions Estimator Model™ (CalEEMod™), released by the SCAQMD on February 3, 2011, was used to estimate emissions of criteria pollutants NO_X, VOC, PM_{10}, $PM_{2.5}$, SO_X, and CO, associated with construction activities proposed by the Project. Construction-related emissions would be expected from the following construction activities:

- Site Preparation
- Grading
- Paving
- Building Construction
- Architectural Coatings (Painting)
- Construction Workers Commuting

The assumptions for each phase of Project construction was input into the CalEEMod™ model using anticipated construction characteristics (e.g., construction activities, equipment list) and a schedule provided by the Project Construction Manager and Applicant. In addition, information provided by the Project Architect and Applicant was used to quantify the amount of surface area to be painted, which was input into the CalEEMod™ model to calculate VOC emissions associated with the application of architectural coatings (Urban Crossroads 2011a 31-32). Table 4.2-5, *Construction Equipment Assumptions*, summarizes the list of equipment that was assumed in the analysis of construction-related emissions, based on the information provided by the Project Construction Manager and Applicant. In all instances where construction information was not provided and/or not available, the analysis utilizes the default CalEEMod™ model assumptions (Urban Crossroads 2011a 31).

Refer to Appendix B of the Air Quality Impact Analysis (*Technical Appendix B1* to this EIR) for more details on the methodology and assumptions utilized to estimate Project-related construction emissions.

❑ Localized Emissions

Localized emissions associated with Project-related construction activities were estimated and evaluated in accordance with SCAQMD's *Final Localized Significance Threshold Methodology*. The Redlands Source Receptor Area (SRA) was utilized as the as the baseline for ambient air quality. In accordance with SCAQMD guidance for "large" projects (i.e., projects over five acres in size), the Industrial Source Complex-Short Term (ISCST3) dispersion model was utilized to estimate localized pollutant concentrations. The ISCST3 model relied on meteorological conditions from the Redlands monitoring station, as the Redlands station is the closest monitoring station to the Project site for which meteorological data is available. Based on information provided by the Project Construction

Table 4.2-5 Construction Equipment Assumptions

OPERATION	WATER TRUCKS	SCRAPER	GRADER	RUBBER TIRED DOZER	TRACTOR/LOADER/BACKHOE	EXCAVATOR	PAVERS	PAVING EQUIPMENT	ROLLERS	FORKLIFT	CRANES	AIR COMPRESSOR	GENERATOR SET	WELDER	AERIAL LIFTS
Phase I															
Site Preparation	2			3	4										
Mass Grading	2	5	1	2	2	2									
Building Construction					3					3	2		1	3	3
Paving							2	2	2						
Painting												3			2
Phase II															
Building Construction					3					3	2		3	3	
Paving							2	2	2						
Painting												3			2

Source: Urban Crossroads 2011a, Table 3-2.

Manager and Applicant (see Appendix B of the Air Quality Impact Analysis, EIR *Technical Appendix B1*), the ISCST3 model assumed that a maximum of 6.5 acres would be simultaneously graded on the Project site during peak construction activities. Potential sources of construction-related emissions and receptor locations were quantified using the methodology and equations established by SCAQMD (Urban Crossroads 2011a 41-44). Refer to Pages 41 through 44 of the Project's Air Quality Impact Analysis (*Technical Appendix B1* to this EIR) for a detailed explanation of the model inputs and equations used in the analysis of construction-related localized emissions.

B. Methodology for Estimating Project-Related Operational Emissions

❑ Maximum Daily Emissions

The California Emissions Estimator Model™ (CalEEMod™), released by the SCAQMD on February 3, 2011, was used to estimate emissions of criteria pollutants, NO_X, VOC, PM_{10}, $PM_{2.5}$, SO_X, and CO, associated with long-term operation of the proposed Project. Operational emissions would be expected from the following primary sources:

- Vehicles
- Combustion Emissions associated with Natural Gas and Electricity
- Fugitive Dust related to Vehicular Travel
- Landscape Maintenance Equipment
- Architectural Coatings (Painting)

Trip characteristics from the Project's Traffic Impact Analysis (*Technical Appendix J* to this EIR) were utilized to estimate Project-related operational vehicular emissions. It should be noted that the

Project's traffic study presents the total Project vehicle trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at the study area intersections. For purposes of the air quality study the PCE trips were not used, rather to be more representative of actual emissions, the actual number of passenger cars (including light trucks) and heavy trucks were used in the analysis. The vehicle fleet mix, in terms of actual vehicles, as derived from the traffic study for the Project is comprised of approximately 47.6% passenger cars (1,152 passenger cars) and approximately 52.4% total trucks (1,267 trucks) (Urban Crossroads 2011a 34). The total traffic generation in vehicles is 2,419 per day. The proposed Project was input as one land-use for simplicity in the CalEEMod™ emissions inventory model. The total traffic generation in vehicles was divided by the total number of square feet for the Project to derive the trip generation rate for input into the modeling program. For analysis purposes, the total 2,419 vehicles (1,152 passenger cars + 1,267 trucks) is divided by the total square footage for all buildings (1,484,410 square feet) to derive an aggregate trip generation rate (1.63 trips per thousand square feet) for input into the model. Similarly, total truck trips (by axle) were summed for all land uses; the total sum of all trucks was then divided by each category of trucks (by axle) to determine axle-specific truck percentage for the Project as a whole. The distribution of passenger cars was apportioned in accordance with the CalEEMod™ model default distribution and is summarized on Table 4.2-6, *Passenger Car Percentage Breakdown*. The distribution of truck traffic was apportioned in accordance with the CARB's *Assessment of Heavy-Duty Gasoline and Diesel Vehicles in California*, and is summarized on Table 4.2-7, *Heavy Duty Truck Percentage Breakdown*.

Table 4.2-6 Passenger Car Percentage Breakdown

VEHICLE CLASS	PERCENTAGE OF VEHICLES
Light-Duty Autos	55%
Light-Duty Trucks	8%
Light-Duty Trucks	25%
Medium-Duty Trucks	12%

Source: Urban Crossroads 2011a, Table 3-4.

Table 4.2-7 Heavy Duty Truck Percentage Breakdown

VEHICLE CLASS	PERCENTAGE OF VEHICLES
Light Heavy Duty Trucks	4.6%
Light Heavy Duty Trucks	1.3%
Medium Heavy Duty Trucks	45.2%
Heavy Heavy Duty Trucks	48.8%

Source: Urban Crossroads 2011a, Table 3-5.

The Air Quality Impact Analysis (*Technical Appendix B1*) for the Project utilized a conservative approach for estimating long-term operational emissions associated with vehicle use. Per the SCAQMD 1993 CEQA Handbook, a one-way trip length of 17 miles was assumed for passenger car trips. For heavy duty trucks, the one-way trip length was derived using a formula that assumed that 50% of all Project-related heavy duty trucks would travel to Port of Los Angeles/Long Beach (approximately 78 miles from the Project site), and the remaining 50% of all Project-related heavy duty trucks would be distributed equally to one of the following locations at far edges of the SCAB:

Banning Pass (approximately 27 miles from the Project site); San Diego County Line (approximately 46 miles from the Project site); Cajon Pass (approximately 42 miles from the Project site); and Downtown Los Angeles (approximately 64 miles from the Project site). Using this formula, the average Project-related one-way heavy duty truck trip would be 61 miles. Weighting the average trip length by the Project's estimated vehicle fleet mix resulted in an average weighted one-way trip length of 40.52 miles. The weighted one-way trip used in the evaluation of the Project's operational emissions is higher than the recommended values of the SCAQMD and Southern California Association of Governments (SCAG) and likely overstates the Project's long-term impact (Urban Crossroads 2011a 34-37).

Using the vehicle mix one-way trip length described above, the Project's operational vehicular emissions were derived from vehicle miles traveled (VMT). VMT for a given project is calculated by multiplying the total number of vehicle trips to/from the project site by the average trip length (in miles). This likely results in the over-estimation and double-counting of emissions for distribution warehouse centers like the proposed Project because the proposed land use is likely to attract (divert) existing vehicle trips that are already on the circulation system as opposed to generating new trips. The method of estimating VMT for use in calculating vehicle emissions is highly speculative and likely overstates the potential impact of the Project. Distribution centers such as this Project are developed to facilitate more efficient distribution of goods, and likely result in an overall reduction in regional VMT by heavy duty freight trucks. Thus, development of this Project will not create 1,267 new daily truck trips within the region, as is assumed in the analysis. Most, if not all, of those truck trips will exist within this region either with or without the proposed Project – they will just travel to different destinations. There are no known methodologies for estimating the net effect of redistributed truck trips on freight truck vehicle miles within the region.

Project-related long-term operational emissions associated with the usage of natural gas and electricity, fugitive dust related to vehicular travel, operation of landscape maintenance equipment, and the application of architectural coatings were estimated using CalEEMod™ model defaults.

Please refer to Appendix B of the Air Quality Impact Analysis (*Technical Appendix B1* to this EIR) for more details on the methodology and assumptions utilized to estimate Project-related operational emissions.

❑ Localized Significance

Localized emissions associated with long-term operation of the Project were estimated and evaluated using the SCREEN3 model. The SCREEN3 model utilizes algorithms and dispersion screening techniques in accordance with the EPA's *Screening Procedures for Estimating the Air Quality Impact of Stationary Sources* to estimate localized emissions from point, area, and volume stationary sources. Localized emissions were quantified using the methodology and equations established by the EPA (Urban Crossroads 2011a 46-47). Refer to Pages 46 and 47 of the Project's Air Quality Impact Analysis (*Technical Appendix B1* to this EIR) for a detailed explanation of the model inputs and equations used in the analysis of construction-related localized emissions.

A CO "Hot Spot" Analysis was not performed to evaluate the effect of Project-related vehicular emissions on localized concentrations of CO at intersections in the vicinity of the Project site. CO "Hot Spots" are typically associated with idling vehicles at extremely busy intersections (i.e., intersections with an excess of 100,000 vehicle trips per day) in areas with unusual meteorological

and topographical conditions. At Project buildout, the busiest intersection in the Project vicinity would attract approximately 60,400 vehicle trips per day, which is well below the threshold typically associated with CO "Hot Spots." In addition, there are no unique topographical or meteorological conditions in the Project vicinity that could contribute to the formation of a CO "Hot Spots." Furthermore, the SCAB has been designated as an attainment area for CO since 2007 and all areas within the SCAB are modeled to achieve applicable federal and state CO concentration standards. Therefore, Project-related vehicular emissions are not anticipated to result in a substantial contribution of CO concentrations at intersections in the vicinity of the Project site and a CO "Hot Spot" analysis is not warranted (Urban Crossroads 2011a 48-49).

C. Methodology for Estimating Project-Related Diesel Particulate Emissions

Diesel particulate emissions were estimated using the 2007 version of the Emission FACtor model (EMFAC) developed by the CARB. EMFAC 2007 is a mathematical model that was developed to calculate emission rates from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB for projections of changes in future emissions from on-road mobile sources. The EMFAC 2007 model quantifies annual diesel particulate exposure for different receptor populations using a variety of factors including vehicle activity, vehicle speed, temperature and relative humidity (Urban Crossroads 2012 11-13). Refer to Pages 11 through 16 of the Project's Mobile Source Health Risk Assessment (*Technical Appendix B2* to this EIR) for a detailed description of the model inputs and equations used in the estimation of Project-related diesel particulate emissions.

The effect of Project-related diesel particulate emissions was quantified in accordance with the SCAQMD's *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*. Pursuant to SCAQMD's recommendations, the ISCST3 model, which uses a steady state Gaussian plume model to estimate ground level effects of emissions from emissions sources, was used to evaluate the significance of Project-related diesel particulate emissions (Urban Crossroads 2012 17). Refer to Pages 17 and 18 of the Project's Mobile Source Health Risk Assessment (*Technical Appendix B2* to this EIR) for a detailed description of the model inputs and equations used in the estimation of average particulate concentrations associated with operations at the Project site.

Health risks associated with exposure to diesel particulate emissions are defined in terms of the probability of developing cancer as a result of exposure to a chemical at a given concentration. The cancer risk probability is determined through a series of equations to calculate unit risk factor, cancer potency factor, and chronic daily intake. The equations and input factors utilized in the Project analysis were obtained from the California Environmental Protection Agency, Office of Environmental Health Hazard (Urban Crossroads 2012 18-19). Refer to Pages 18 through 20 of the Project's Mobile Source Health Risk Assessment (*Technical Appendix B2* to this EIR) for a detailed description of the variable inputs and equations used in the estimation of receptor population health risks associated with operations at the Project site.

Threshold 1: Would the Project conflict with or obstruct implementation of the applicable air quality plan?

The 2007 SCAQMD AQMP, which is the applicable air quality plan for the Project area, projects long-term air quality conditions for the SCAB. The air quality conditions presented in the 2007

AQMP are based in part on the growth forecasts that were used as inputs for the regional transportation model. The growth forecasts utilized in the 2007 AQMP are based on the growth projections identified by SCAG in its 2004 Regional Transportation Plan (RTP). The RTP assumed that development in the various incorporated and unincorporated areas within the SCAB would occur in accordance with the adopted general plans for these areas. In addition, the air quality conditions presented in the 2007 AQMP are based on the assumption that future development projects would implement strategies to reduce emissions generated during the construction and operational phases of development. Accordingly, if a proposed project is consistent with these growth forecasts, and if available emissions reduction strategies are implemented as effectively as possible on a project-specific basis, then the project would be considered to be consistent with the AQMP.

The SCAQMD has established criteria for determining consistency with the AQMP. These criteria are defined in Chapter 12, Sections 12.2 and 12.3 of the SCAQMD CEQA Air Quality Handbook and are discussed below.

- ***Consistency Criterion No. 1:*** *The proposed project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.*

Consistency Criterion No. 1 refers to violations of the CAAQS and NAAQS. As evaluated under Threshold 4 (below), the Project would not exceed localized significance thresholds for any criteria pollutant during construction (after mitigation) or during long-term operation. Accordingly, localized emissions would not contribute substantially to an existing or potential future violation or delay the attainment of air quality standards.

As discussed under Thresholds 2 and 3 (below), the Project is anticipated to exceed regional threshold criteria for NO_X during short-term construction activities and long-term operational activities. The Project's long-term emissions of VOCs also are projected to exceed regional threshold criteria. However, the proposed Project would be consistent with the adopted land use designations for the subject property as applied by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208). Therefore, the Project is evaluated as being consistent with the growth forecast utilized in the 2007 AQMP and the emissions that would be generated by the Project are assumed to be accounted for in the AQMP. Thus, the Project's regional emissions would not contribute substantially to an existing or potential future violation or delay the attainment of air quality standards.

- ***Consistency Criterion No. 2:*** *The proposed project will not exceed the assumptions in the AQMP in 2011 or increments based on the years of project buildout phase.*

The growth forecasts used in the AQMP to project future emissions levels are based in part on land use data provided by lead agency general plan documentation. Projects that propose to increase the intensity of use on a subject property may result in higher traffic volumes than accounted for in the applicable local general plan, thereby resulting in increased stationary area source emissions and/or vehicle source emissions when compared to the AQMP assumptions. If however, a project does not exceed the growth projections in the applicable local general plan, then the project is considered to be consistent with the growth assumptions in the AQMP.

The prevailing planning document for the proposed Project site is the City of Moreno Valley General Plan. The City of Moreno Valley General Plan Land Use Map designates a majority of the Project site for Business Park/Light Industrial (BP) land uses. The northwest corner of the site is designated for Commercial (C) land uses. The Business Park/Light Industrial land use designation calls for employee intensive uses, including manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities, with a building intensity up to 1.0 floor area ratio (FAR). The Commercial land use designation calls for local retail and service commercial activities, with a building intensity up to 1.0 FAR. Similarly, the Moreno Valley Industrial Area Plan calls for a majority of the site to be developed as Industrial with the northwestern corner, coinciding with the General Plan's Commercial designation, designated as Industrial Support Area. As discussed in EIR Subsection 4.9, Land Use and Planning, the proposed Project would be consistent with the General Plan for the subject property. Even if an argument could be made that the AQMP assumed development of the Project site's northwestern corner with commercial land uses, developing this area as proposed by the Project would decrease intensity on the subject property, as compared to the General Plan assumptions, which would decrease projected traffic and associated air emissions at the Project site. As such, the proposed Project would not exceed the assumptions of the AQMP. The Project is consistent with the AQMP and no impact due to inconsistency with the AQMP would occur.

Threshold 2:	***Would the Project violate any air quality standard or contribute substantially to an existing or projected air quality violation?***
Threshold 3:	***Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?***

❑ Construction Emissions

For purposes of analysis, it is assumed that construction of Phase 1 of the Project would occur in Year 2013 and construction of Phase 2 would occur in the Year 2014. In the event that construction activities occur at a later date, emissions associated with construction vehicle exhaust would be less than disclosed in this subsection as the analysis year increases due to implementation of mandatory regulatory requirements and vehicle fleet turnover contained in the EMFAC 2007 model (Urban Crossroads 2011c 40). The estimated maximum daily construction emissions associated with each phase of Project construction are presented in Table 4.2-8, *Construction-Related Emissions Summary (Pounds per Day)*. Detailed construction-related emissions model outputs are presented in Appendix A of the Air Quality Impact Analysis (*Technical Appendix B1* to this EIR).

As shown, the Project is projected to exceed the SCAQMD regional criteria pollutant threshold for emissions of NO_X during the first phase of construction. In addition, the SCAB does not attain state criteria for NO_X concentrations, as previously presented in Table 4.2-2. In addition, NO_X is a precursor for ozone, and the SCAB is identified as a federal and state non-attainment area for ozone (see Table 4.2-2). Accordingly, the Project's emissions of NO_X during Phase 1 of construction would violate the SCAQMD regional threshold for this pollutant and would result in a considerable net increase of a criteria pollutant for which the Project region is in non-attainment. This impact is evaluated as significant on a direct and cumulative basis and mitigation would be required.

Table 4.2-8 Construction-Related Emissions Summary (Pounds per Day)

YEAR	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
2013	67.03	208.12	103.51	0.22	81.00	15.46
2014	63.50	63.30	83.40	0.16	14.14	4.14
Maximum Daily Emissions	**67.03**	**208.12**	**103.51**	**0.22**	**81.00**	**15.46**
SCAQMD Regional Threshold	75	100	550	150	150	55
Significant?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**

Source: Urban Crossroads 2011a, Table 3-3.

❑ Operational Emissions

Project-related operational emissions are summarized in Table 4.2-9, *Operational Emissions Summary (Pounds per Day)*. Detailed construction-related emissions model outputs are presented in Appendix A of the Air Quality Impact Analysis (*Technical Appendix B1* to this EIR).

As presented in Table 4.2-9, long-term emissions associated with the Project would violate the SCAQMD regional criteria for VOCs and NO_X. Furthermore, the SCAB is a designated non-attainment area for NO_X concentrations and for ozone concentrations (NO_X is a precursor for ozone) as described above. Accordingly, the Project's long-term emissions of NO_X would result in a considerable net increase of a criteria pollutant for which the Project region is in non-attainment (i.e. NO_X and ozone). These impacts are evaluated as significant on a direct and cumulative basis and mitigation would be required.

Emissions of VOC and NO_X are the result of mobile source emissions (vehicles traveling to and from the Project site). The estimation of mobile source emissions are highly speculative and controls for mobile source emissions are not within the purview of the Project Applicant, future tenants of the Project, or the City of Moreno Valley. The on-site area sources of air pollution that are within the direct control of the Project Applicant and future tenants of the Project are below the significance thresholds. To reduce the Project's energy needs and fossil fuel consumption, and thereby reduce air emissions, the Project Applicant has committed to design the Project's buildings using the United States Green Building Council's LEED 2009 "Core and Shell Development Rating System" and meet the minimum requirements to achieve LEED Silver status. Official LEED certification may or may not occur (and is not required by the City of Moreno Valley), but the Project would be designed to meet Silver eligibility requirements. Because the design features are not yet selected, and cannot be precisely determined until tenants are identified and interior space design occurs, it is not possible to calculate the air emission reductions associated with LEED Silver design features at this time. It is unlikely that the significant VOC and NO_X impacts identified above would be substantially reduced because these impacts are primarily caused by mobile source emissions, which are outside of the control of the Project Applicant, future Project tenants, and the City of Moreno Valley. Some reduction of VOC area-source emissions could occur, however, from LEED features.

Table 4.2-9 Operational Emissions Summary (Pounds per Day)

OPERATIONAL ACTIVITIES	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Peak Operational Emissions (Summer)						
Area Source Emissions	35.04	0	0	0	0	0
Energy Source Emissions	0.09	0.85	0.72	0.01	0.06	0.06
Mobile Emissions	75.28	666.74	547.40	1.49	139.91	28.03
Maximum Daily Emissions	**110.41**	**667.59**	**548.12**	**1.50**	**139.91**	**28.03**
SCAQMD Regional Threshold	55	55	550	150	150	55
Significant?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**
Peak Operational Emissions (Winter)						
Area Source Emissions	35.04	0	0	0	0	0
Energy Source Emissions	0.09	0.85	0.72	0.01	0.06	0.06
Mobile Emissions	78.123	707.26	541.59	1.45	140.03	28.15
Maximum Daily Emissions	**113.25**	**708.11**	**542.31**	**1.46**	**140.09**	**28.21**
SCAQMD Regional Threshold	55	55	550	150	150	55
Significant?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

Source: Urban Crossroads 2011a, Table 3-6.

Threshold 4: Would the Project expose sensitive receptors to substantial pollutant concentrations?

During both construction and long-term operation, the Project has the potential to expose nearby sensitive receptors to substantial pollutant concentrations. The following provides an analysis based on the applicable localized significance thresholds established by the State of California and SCAQMD.

❑ Construction-Related Localized Emissions

Table 4.2-10, *Localized Significance Summary – Construction*, presents the estimated localized emissions associated with Project construction. Detailed construction-related localized emissions model outputs are presented in Appendix A of the Air Quality Impact Analysis (*Technical Appendix B1* to this EIR).

As shown in Table 4.2-10, emissions of PM_{10} and $PM_{2.5}$ would exceed localized thresholds for 24-hour concentrations of particulate matter. Accordingly, construction of the Project has the potential to expose nearby sensitive receptors to substantial concentrations of PM_{10} and $PM_{2.5}$, which is evaluated as a significant impact for which mitigation would be required.

❑ Operational Localized Emissions Estimates

- **Criteria Pollutant Emissions**

Table 4.2-11, *Localized Significance Summary – Operations*, presents the results of the long-term localized significance threshold analysis. Detailed operational localized emissions model outputs are presented in Appendix A of the Air Quality Impact Analysis (*Technical Appendix B1* to this EIR).

Table 4.2-10 Localized Significance Summary - Construction

CONSTRUCTION	CO		NO_2	PM_{10}	$PM_{2.5}$
	AVERAGING TIME				
	1-HOUR	8-HOUR	1-HOUR	24-HOURS	
Peak Day Localized Emissions	0.67	0.25	0.06	16.01	12.47
Background Concentration	7	2.1	0.09	--	--
Total Concentration	**7.67**	**2.35**	**0.15**	**16.01**	**12.47**
SCAQMD Localized Significance Threshold	20	9	0.18	10.40	10.40
Significant?	**NO**	**NO**	**NO**	**YES**	**YES**

Note: PM_{10} and $PM_{2.5}$ concentrations are expressed in $\mu g/m^3$. CO and NO_2 concentrations are expressed in ppm.
Source: Urban Crossroads 2011a, Table 3-7

Table 4.2-11 Localized Significance Summary - Operations

OPERATIONS	CO		NO_2	PM_{10}	$PM_{2.5}$
	AVERAGING TIME				
	1-HOUR	8-HOUR	1-HOUR	24-HOURS	
Summer Operations					
Peak Day Localized Emissions	0.02	0.015	0.00329	0.06	0.02
Background Concentration	7	2.1	0.09	--	--
Total Concentration	**7.02**	**2.12**	**0.09**	**0.06**	**0.02**
SCAQMD Localized Significance Threshold	20	9	0.18	2.50	2.50
Significant?	**NO**	**NO**	**NO**	**NO**	**NO**
Winter Operations					
Peak Day Localized Emissions	0.03	0.02	0.00309	0.06	0.03
Background Concentration	7	2.1	0.09	--	--
Total Concentration	**7.03**	**2.12**	**0.09**	**0.06**	**0.03**
SCAQMD Localized Significance Threshold	20	9	0.18	2.50	2.50
Significant?	**NO**	**NO**	**NO**	**NO**	**NO**

Note: PM_{10} and $PM_{2.5}$ concentrations are expressed in $\mu g/m^3$. CO and NO_2 concentrations are expressed in ppm.
Source: Urban Crossroads 2011a, Table 3-9

Results of the analysis indicate that estimated Project-related long-term operational emissions would not exceed localized emissions thresholds established by the SCAQMD. Accordingly, under long-term operating conditions, the proposed Project would not expose any sensitive receptors to substantial Project-related pollutant concentrations. Impacts would be less than significant.

- **Diesel Particulate Emissions**

The proposed Project would generate/attract diesel trucks, which emit diesel particulate matter. Diesel particulate matter is known to be associated with increased hazards to health, including cancer. To evaluate the Project's potential to expose nearby sensitive receptors to substantial amounts of diesel particulate matter during long-term operation, a Mobile Source Health Risk Assessment was prepared for the proposed Project (included as *Technical Appendix B2* to this EIR).

The results of the Mobile Source Health Risk Assessment indicate that diesel particulate emissions generated during operation of the proposed Project would not create a significant health risk to sensitive receptors in the vicinity of the Project site. Detailed air dispersion model outputs and risk calculations are presented in Appendices B and C, respectively, of the Mobile Source Health Risk Assessment (*Technical Appendix B2* to this EIR). At the point of maximum impact, the maximum

increase in cancer risk is estimated to be 3.70 in one million for nearby residents (based on a 70 year exposure rate), 3.23 in one million for employees at the Project site (based on a 40 year exposure rate), and 0.67 in one million for nearby school children (based on a nine (9) year exposure rate). The level of risk for each sensitive receptor class (i.e., residents, workers, school children) would not exceed the SCAQMD significance threshold of 10 in one million. Therefore, long-term operation of the Project would not expose any sensitive receptors to substantial concentrations of diesel particulate emissions and impacts would be less than significant.

Threshold 5: Would the Project create objectionable odors affecting a substantial number of people?

Land uses generally associated with odor complaints include:

- Agricultural uses (livestock and farming)
- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

The Project could produce odors during proposed construction activities resulting from construction equipment exhaust, application of asphalt, and/or the application of architectural coatings; however, standard construction practices would minimize the odor emissions and their associated impacts. Furthermore, any odors emitted during construction would be temporary, short-term, and intermittent in nature, and would cease upon the completion of the respective phase of construction. In addition, construction activities on the Project site would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance. Accordingly, the proposed Project would not create objectionable odors affecting a substantial number of people during construction, and short-term impacts are evaluated as less than significant.

During long-term operation, the proposed Project would include light industrial and warehouse distribution land uses, which are not typically associated with objectionable odors. The temporary storage of refuse associated with the proposed Project's long-term operational use could be a source of odor; however, Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations, thereby precluding any potential impact. Furthermore, the proposed Project would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance, during long-term operation. As such, long-term operation of the proposed Project would not create objectionable odors affecting a substantial number of people.

4.2.4 CUMULATIVE IMPACT ANALYSIS

The proposed Project proposes to implement the Moreno Valley General Plan and Moreno Valley Industrial Area Plan land use designations applied to the Project site. As such, the Project would be

consistent with the growth forecasts used in the SCAQMD's AQMP to predict future air quality conditions in the SCAB. Accordingly, emissions that would be generated by the Project are assumed to be accounted for in the AQMP. Accordingly, the Project would not conflict with or obstruct the implementation of the SCAQMD on a cumulative basis.

The City of Moreno Valley General Plan EIR (Moreno Valley 2006 Sec. 5.3) concluded that buildout of the City would result in an unavoidable long-term air quality impact, even with implementation of all state-mandated air quality regulations. As such, there is a cumulative air quality impact identified in the Project's study area. As indicated in the analysis of Thresholds 2 and 3 in Subsection 4.2.3 above, the Project would exceed SCAQMD criteria pollutant standards for emissions of NO_X during construction. Under long-term operation, the Project's emissions of VOCs and NO_X also would exceed the SCAQMD criteria pollutant standards. In addition, the SCAB is classified as being a non-attainment area of ozone, for which NO_X is a precursor, under both federal and state criteria. When considered with emissions that can reasonably be assumed from other development within the cumulative study area, including buildout of the City of Moreno Valley, the Project's construction-related emissions of NO_X and operational emissions of NO_X and VOCs would represent a cumulatively considerable contribution to an existing air quality violation and cumulative impact, requiring mitigation.

Construction of the proposed Project would exceed localized significance thresholds for PM_{10} and $PM_{2.5}$ in the short-term during Phase 1 of the Project's construction activities. Concentrations of particulate matter (PM_{10} and $PM_{2.5}$) could substantially increase if construction activities were to occur simultaneous with construction activities on adjacent properties. Thus, implementation of the Project could expose nearby sensitive receptors to substantial concentrations of criteria pollutants. The Project's localized emissions of particulate matter (PM_{10} and $PM_{2.5}$) during construction are evaluated as cumulatively considerable and mitigation would be required.

Long-term operation of the Project would not exceed localized significance thresholds for any criteria pollutant. In addition, Project-related operational emissions of diesel particulates would not result in significant mobile-source health risks to any nearby sensitive receptors. Under long-term operating conditions, Project emissions would be well below SCAQMD's localized significance and carcinogenic exposure thresholds. Therefore, it is reasonable to conclude that even when combined with localized emissions from future developments within close proximity to the Project site, such emissions would not exceed SCAQMD thresholds. Accordingly, long-term operation of the Project would not expose nearby sensitive receptors to substantial localized pollutant concentrations, and a cumulative considerable impact would not occur.

As indicated in the analysis of Threshold 6 in Subsection 4.2.3 above, there are no components of the proposed Project's construction or long-term operation that would result in the exposure of a substantial number of sensitive receptors to objectionable odors. There also are no odor emitters in the Project's cumulative study area which, when combined with Project-related odors, could affect a substantial number of people. Accordingly, a cumulatively significant impact would not occur.

4.2.5 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Compliance with these measures was assumed throughout the above analysis of air quality impacts.

PR 4.2-1 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 402, "Nuisance."

PR 4.2-2 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust." Rule 403 requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving activities, grading, and equipment travel on unpaved roads.

PR 4.2-3 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 431.2, "Sulfur Content of Liquid Fuels."

PR 4.2-4 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1113, "Architectural Coatings."

PR 4.2-5 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1186, "PM_{10} Emissions from Paved and Unpaved Roads, and Livestock Operations."

PR 4.2-6 The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1186.1, "Less-Polluting Street Sweepers."

PR 4.2-7 The Project is required to comply with California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles."

PR 4.2-8 The Project is required to comply with California Code of Regulations Title 13, Division 3, Chapter 10, Article 1, Section 2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling."

4.2.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: No Impact. The proposed Project would not conflict with or obstruct implementation of the SCAQMD AQMP.

Thresholds 2 and 3: Significant Direct and Cumulative Impact (Short-Term and Long-Term). Emissions during Phase 1 of Project construction would violate the SCAQMD regional threshold for NO_X. In addition, long-term operation of the Project is projected to exceed SCAQMD regional thresholds for VOC and NO_X emissions. Near- and long-term emissions of NO_X also would contribute to an existing air quality violation in the SCAB (i.e., non-attainment status for ozone) because NO_X is a precursor for ozone. As such, Project-related emissions would violate SCAQMD air quality standards and contribute to the non-attainment status of a criteria pollutant (i.e., ozone), and these impacts are evaluated as significant on a direct and cumulative basis.

Threshold 4: Significant Direct and Cumulative Impact (Short-Term). The Project would expose nearby sensitive receptors to substantial concentrations of localized particulate matter (PM_{10} and

$PM_{2.5}$) during construction. This impact is evaluated as significant on a direct and cumulative basis. Long-term operation of the Project would not expose nearby sensitive receptors to substantial pollutant concentrations of any criteria pollutant or diesel particulate matter. As such, a less than significant impact would occur during long-term operation of the Project.

Threshold 5: Less than Significant Impact. Although near-term construction activities could produce odors associated with construction equipment exhaust, the application of asphalt, and the application of architectural coatings, standard construction requirements would minimize odor impacts to less than significant levels. Odors associated with long-term operation of the proposed Project would not significantly impact nearby sensitive receptors.

4.2.7 MITIGATION

MM 4.2-1 Prior to grading permit issuance, the City shall verify that the following notes are included on the grading plan:

"The contractor shall utilize California Air Resources Board (CARB) Tier III certified equipment or better for all off-road diesel-powered construction equipment greater than 50 horsepower."

"Any emissions controls device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations, with the exception that afterburners are not required."

"During construction activity, truck idling shall be limited to five minutes or less."

"The contractor shall implement temporary traffic control during construction pursuant to the requirements of the California Manual on Uniform Traffic Control Devices."

"The contractor shall assure that mass grading shall be limited to no more than 6.5 acres per day. The contractor shall maintain a log of daily mass grading activities, which shall be provided to the City upon request."

MM 4.2-2 Prior to issuance of each grading and building permit, the Project applicant or construction contractor shall prepare an exhibit for review by the City depicting the location of proposed equipment staging areas. The City shall review the proposed location(s) to ensure the staging areas are located at least 300-feet away from sensitive receptors and 1,105 feet from the northeastern corner of the Project site's property boundary as measured from the Iris Avenue right-of-way, as required by Mitigation Measure MM 4.10-1.

MM 4.2-3 The Project applicant shall use "Zero-Volatile Organic Compounds" paints (no more than 150 grams of VOC per liter) and/or High Pressure Low Volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113. Alternatively, the applicant shall use building materials that do not require painting or

are pre-painted. Painting products and materials compliant with these requirements shall be noted on building plans.

Although Project-related diesel particulate emissions are evaluated as less than significant on both a direct and cumulative basis, the following mitigation measures have been identified to further reduce the Project's less than significant impact due to diesel particulate emissions. The following mitigation measures shall be made a condition of the Project's approval by the City of Moreno Valley:

MM 4.2-4 Prior to the issuance of each building permit, the City shall ensure that building plans require the placement of signs at truck access gates, loading docks, and truck parking areas to identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes; and 3) telephone numbers of the building facilities manager and the CARB to report violations.

MM 4.2-5 Prior to the issuance of each building permit, the City shall review the parking lot striping and security gating plan to ensure the site design allows adequate truck stacking at gates to prevent queuing of trucks outside the facility.

MM 4.2-6 Prior to the issuance of occupancy permits, the applicant shall provide evidence that a sign has been installed at each exit driveway, providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow.

MM 4.2-7 Prior to the issuance of occupancy permits, the Project's property owner shall provide documentation to the Planning Division verifying that a provision is included in the building's lease agreement that informs tenants using a vehicle fleet older than 2007 about the availability of grant funding from available funding sources for truck retrofit and replacement.

MM 4.2-8 Prior to the issuance of occupancy permits, the Project's property owner shall provide documentation to the Planning Division verifying that a provision is included in the building's lease agreement that informs tenants about the availability of alternatively fueled cargo handling equipment.

Compliance with SCAQMD Rule 403, "Fugitive Dust," is a mandatory requirement listed above as Project Requirement PR 4.2-2. The SCAQMD made specific recommendations regarding this Project related to SCAQMD Rule 403 compliance, which are listed below in Mitigation Measures MM 4.2-9 and MM 4.2-10.

MM 4.2-9 Prior to grading permit issuance, the City shall verify that the following notes are listed on the grading plan:

"Apply non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for ten days or more)."

"All trucks hauling dirt, sand, soil, or other loose materials shall be covered."

"Streets shall be swept at the end of each day if visible soil is carried onto adjacent paved public roads. Refer to SCAQMD Rule 1186.1, 'Less-Polluting Street Sweepers.' "

"The construction contractor shall monitor wind speed by use of an anemometer. The contractor shall suspend all excavating and grading operations when instantaneous wind speeds exceed 25 miles per hour."

MM 4.2-10 Prior to the start of grading, the construction contractor shall post a sign at the property's frontage with Heacock Street and at the property's frontage with Iris Avenue stating the name and phone number of an individual to be contacted to resolve dust complaints. These signs shall remain posted on the property until grading is complete.

In addition, Mitigation Measures MM 4.6-1 through MM 4.6-10 in Subsection 4.6, Greenhouse Gas Emissions, and Project Requirements PR 4.11-10 and 4.11-11 in Subsection 4.11, Transportation/ Traffic, also are applicable to the reduction of air quality impacts.

4.2.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Thresholds 2 and 3: Significant Direct and Cumulative Impact. Implementation of Mitigation Measures MM 4.2-1 through MM 4.2-3 and Mitigation Measures MM 4.6-2 and MM 4.6-5 in Section 4.6, Greenhouse Gas Emissions, would reduce Project emissions of NO_X during Phase 1 of construction; however, these emissions would remain above the SCAQMD regional threshold for NO_X. Emissions of NO_X during Phase 1 of Project construction also would cumulatively contribute to an existing air quality violation in the SCAB (i.e., ozone concentrations), as well as cumulatively contribute to the net increase of a criteria air pollutant for which the SCAB is in non-attainment (i.e., federal and state ozone concentrations). Accordingly, the Project's emissions of NO_X during Phase 1 of construction represent a short-term significant and unavoidable impact on both a direct and cumulative basis.

Operational emissions of VOCs and NO_X are projected to remain above regional pollutant thresholds during long-term operation of the Project, primarily from mobile source emissions that are beyond the control of the Project Applicant, future Project tenants and the City of Moreno Valley. The Project Applicant will incorporate design features into the Project to reduce long-term emissions of criteria area pollutants (see Mitigation Measures MM 4.2-4 through MM 4.2-6 and MM 4.6-3 through MM 4.6-10 in Section 4.6, Greenhouse Gas Emissions) to the greatest feasible extent. It is likely that incorporation of these features would reduce the Project's long-term emissions of VOCs and/or NO_X but because specific Project design features pursuant to MM 4.6-3 have not been identified at this time, the Project's Air Quality Impact Analysis (*Technical Appendix B1*) did not take credit for potential emissions reductions that may occur with implementation of such features. As such, it is concluded that the Project's long-term emissions of VOCs and NO_X would directly violate SCAQMD air quality standards. In addition, the Project's long-term emissions of NO_X would cumulatively contribute to an existing air quality violation in the SCAB (i.e., ozone concentrations), as well as cumulatively contribute to the net increase of a criteria air pollutant for which the SCAB is in non-attainment (i.e., federal and state ozone concentrations). Accordingly, the Project's long-term

emissions of VOCs and NO_X are evaluated as a significant and unavoidable impact on the Project on both a direct and cumulative basis.

Threshold 4: Less than Significant Impact with Mitigation. Implementation of Mitigation Measures MM 4.2-1, MM 4.2-2, MM 4.2-9, and MM 4.2-10 would reduce localized PM_{10} and $PM_{2.5}$ concentrations below SCAQMD significance thresholds. Accordingly, with implementation of Mitigation Measures MM 4.2-1, MM 4.2-2, MM 4.2-9, MM 4.2-10 and MM 4.6-2, impacts to sensitive receptors associated with the proposed Project-related construction emissions would be reduced to below a level of significance.

4.3 BIOLOGICAL RESOURCES

This subsection assesses the Project's potential to impact sensitive biological resources that may be present on site or within off-site improvement areas. As previously described in EIR Section 3.0, *Project Description*, off-site improvement areas associated with the proposed Project include a portion of the Perris Valley Channel and an approximately 1,400 linear foot segment of Heacock Street located south of the Project site. The analysis in this subsection is based in part on information contained in a site-specific technical report titled, "Biological Technical Report for the March Business Center Project," prepared by Glenn Lukos Associates, Inc., and dated September 12, 2011. This report is provided as *Technical Appendix C* to this EIR. The Biological Technical Report also includes a Focused Burrowing Owl Survey, Jurisdictional Delineation Report, and Jurisdictional Delineation Impact Analysis, which are provided as Appendices C, D, and E (respectively) to the Biological Technical Report (and are included within *Technical Appendix C* to this EIR).

4.3.1 EXISTING CONDITIONS

A. Scope and Methodology

❑ Scope and Methodology for the General Biological Resources Assessment

Biologists/Regulatory Specialists from Glenn Lukos Associates, Inc. (GLA) conducted site-specific biological surveys, including focused burrowing owl surveys, of the Project site and in the Project's off-site improvement areas on April 6, May 13, May 23, June 30, July 25, August 1 and August 4, 2011. Methods of study also included a review of relevant literature and a Geographical Information System (GIS)-based impact analysis. GLA assessed resources within the Project's impact areas using methodologies and accepted scientific and technical standards and survey guideline requirements issued by the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Game (CDFG), the California Native Plant Society (CNPS), and the Western Riverside County MSHCP (GLA 2011 1-2).

The field studies also focused on a number of primary objectives that would satisfy the special provisions of the MSHCP and also comply with CEQA requirements, including: (1) general reconnaissance surveys and vegetation mapping; (2) general wildlife surveys; (3) habitat assessments and surveys for special-status plants (including species with applicable MSHCP survey requirements; (4) habitat assessments and focused surveys for special-status animals (including species with applicable MSHCP survey requirements); and (5) assessments for areas subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps) jurisdiction pursuant to Section 404 of the Clean Water Act, and CDFG jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the California Fish and Game Code. Observations of plant and wildlife species were recorded during each of the above mentioned survey efforts (GLA 2011 2).

Please refer to the Biological Technical Report (*Technical Appendix C* Section 2.0) for a detailed description of the scope and methodology used for the general biological resources assessment.

❑ Jurisdictional Delineation Scope and Methodology

In addition to field surveys conducted for the general biological assessment, regulatory specialists of GLA examined the Project site and off-site improvement areas on March 1 and 16, 2011, to determine the limits of (1) Corps jurisdiction pursuant to Section 404 of the Clean Water Act (CWA), (2) Regional Water Quality Control Board (RWQCB) jurisdiction pursuant to Section 401 of the

CWA and Section 13260 of the California Water Code (CWC), and (3) CDFG jurisdiction pursuant to Division 2, Chapter 6, Sections 1600-1616 of the Fish and Game Code (GLA 2011 Appdx D 1-2).

Prior to beginning the field delineation a 200-scale color aerial photograph, a 200-scale topographic base map of the property, and a USGS topographic map were examined to determine the locations of potential areas of Corps, RWQCB, and CDFG jurisdiction. Suspected jurisdictional areas were field checked for the presence of definable channels and/or wetland vegetation, soils and hydrology. Suspected wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual (Wetland Manual) and the 2008 Regional Supplement to the Corps Wetland Delineation Manual: Arid West Region Version 2.0 (Arid West Supplement). Lateral limits of non-wetland waters were identified using field indicators of an Ordinary High Water Mark (OHWM). While in the field, jurisdiction areas were recorded onto a 200-scale color aerial photograph using visible landmarks. Other data were recorded onto wetland data sheets (GLA 2011 Appdx D 2).

B. Existing Vegetation Communities

Two vegetation/land use types are present on the Project Site; ruderal and disturbed/developed. Table 4.3-1, *Summary of Vegetation Types/Land Uses*, provides a summary of vegetation acreages for the proposed Project Site. Figure 4.3-1, *Vegetation Map*, provides a vegetation map for the Project site. A detailed description of each vegetation/land use type is provided below (GLA 2011 21).

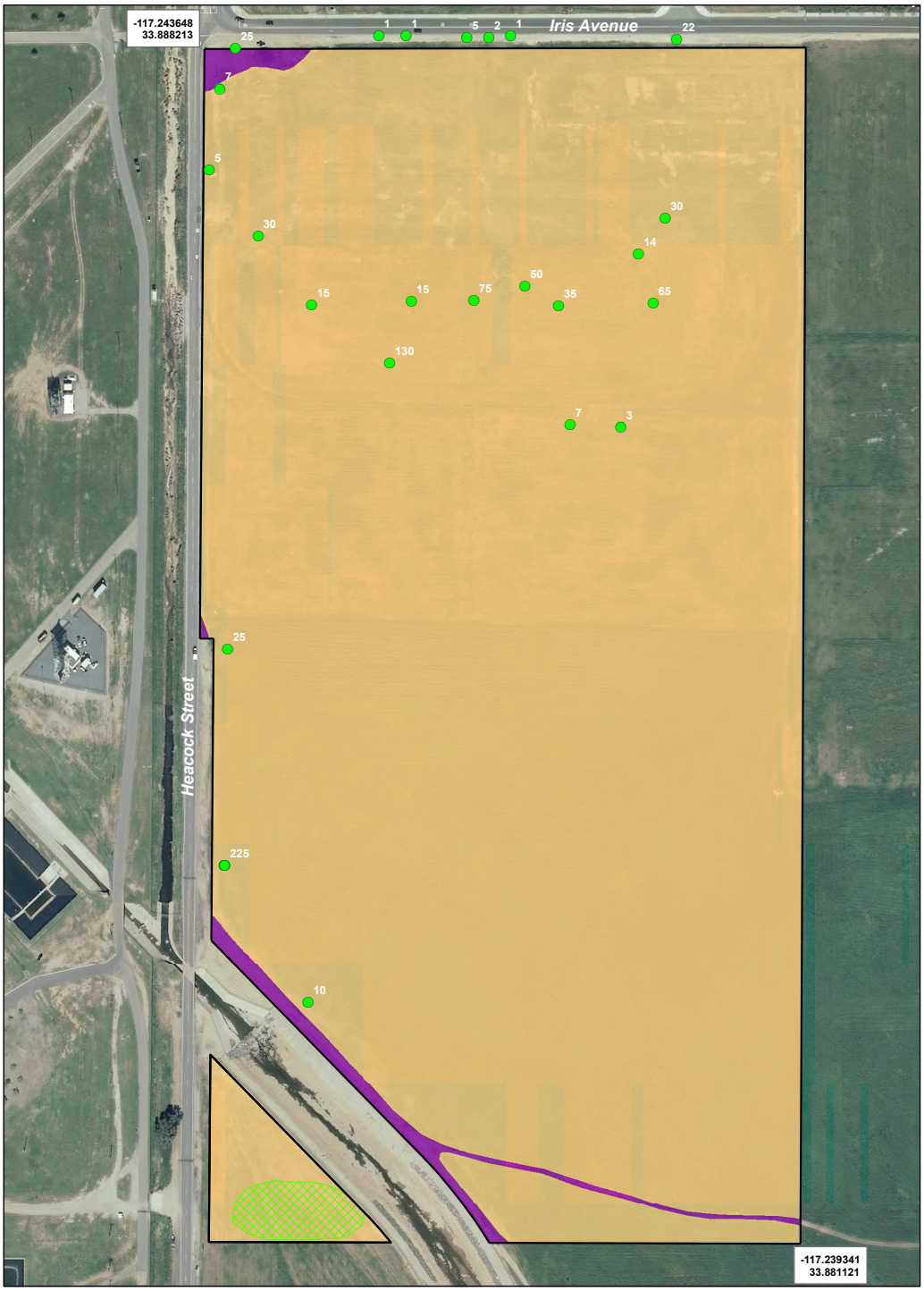
Table 4.3-1 Summary of Vegetation Types/Land Uses

VEGETATION	ACREAGE
Ruderal	73.96
Disturbed/Developed	1.09
Total	**75.05**

Source: GLA 2011, Table 4-1.

- **Ruderal Areas**. The majority of the Project site consists of fallow fields that are disked/mowed on an annual basis, and supports a predominance of ruderal vegetation and annual grasses, both of which are suited to disturbed sites. Common vegetation identified on site includes summer mustard (*Brassica geniculata*), common goldfields (*Lasthenia californica*), common fiddleneck (*Amsinkia menziessii* var. *intermedia*), cultivated barley (*Hordeum vulgare*), wild oat (*Avena fatua*), red brome (*Bromus madritensis* ssp. rubens), and Russian thistle (*Salsola tragus*).

- **Disturbed**. Approximately 1.09 acres of the Project site consists of disturbed areas, including a dirt access road that cuts through the southern portion of the site, and bare areas along Iris Avenue.



Legend

- Project Boundary
- Disturbed
- Ruderal
- Smooth Tarplant Population 500 Individuals
- Smooth Tarplant Location with Number of Individuals

Source: Glenn Lukos (09-15-11)

Not to Scale

FIGURE 4.3-1
Vegetation Map

C. *Special Status Plants*

The Project site was evaluated for the presence of special status plant species. The Biological Technical Report (*Technical Appendix C* Table 4-2) provides a list of the special-status plants there evaluated for potential occurrence on the Project site. Plant species were considered based on a number of factors, including: 1) species identified by the California Natural Diversity Database (CNDDB) as occurring (either currently or historically) on or in the vicinity of the Project site, 2) Western Riverside County MSHCP survey areas, and 3) any other special-status plants that are known to occur within the vicinity of the property, or for which potentially suitable habitat occurs on the Project site.

❑ Narrow Endemic and Criteria Area Plants

The Project site does not occur within the Western Riverside County MSHCP Narrow Endemic Plant Species Survey Area (NEPSSA) or Criteria Area Plant Species Survey Area (CAPSSA). Therefore, there is no requirement per the MSHCP to conduct focused surveys for any of the NEPPSA or CAPSSA target species on the Project site (GLA 2011 24).

❑ Special-Status Plants Observed On Site

During biological surveys, one special-status plant (smooth tarplant, *Centromadia pungens* ssp. *laevis*) was detected on the site, as shown on Figure 4.3-1. However, due to routine disking of the site for required fire fuel management, it was not possible for GLA biologists to accurately determine the size of the population (GLA 2011 21). Smooth tarplant is a CNPS List 1B.1 species and is a CAPSSA species under the MSHCP. However, the Project site is not within any of the MSHCP survey areas for Criteria Area Plants. As such, there are no avoidance and/or mitigation requirements for the smooth tarplant if the species is found to occur on the property and would be impacted. Impacts to the smooth tarplant are covered and mitigated for through the Project's participation in and compliance with the Western Riverside County MSHCP (GLA 2011 24).

D. *Special-Status Animals*

The Project site was evaluated for the presence of special status animal species. The Biological Technical Report (*Technical Appendix C* Table 4-3) provides a list of special-status animals that were evaluated for their potential to occur on the Project site, including MSHCP Covered Species with additional survey requirements. Species were evaluated based on a number of factors, including: 1) species identified by the CNDDB as occurring (either currently or historically) on or in the vicinity of the property, 2) MSHCP species survey areas applicable to the property, and 3) any other special-status animals that are known to occur within the vicinity of the property, or for which potentially suitable habitat occurs on the site.

❑ Special-Status Animals Observed On Site

Two special-status animals were detected within the Project site during the biological field surveys, including the western burrowing owl (*Athene cunicularia hypugaea*) and the California horned lark (*Eremophila alpestris actia*). These two species, as well as other species that have the potential to occur but that were not detected during field surveys, are discussed below.

- *Burrowing Owl (Athene cunicularia hypugaea)*

The Biological Technical Report (*Technical Appendix C* 28-30) provides a detailed description of the borrowing owl species. In summary, the burrowing owl is designated as a CDFG California Species of Special Concern. It breeds from southern provinces of Canada, south through eastern Washington, central Oregon, and California to Baja California, east to western Minnesota, northwestern Iowa, eastern Nebraska, central Kansas, Oklahoma, eastern Texas, and Louisiana, and south to central Mexico. The winter range is much the same as the breeding range, except that most burrowing owls apparently vacate the northern areas of the Great Plains and Great Basin in the winter. The burrowing owl winters south regularly to El Salvador.

In California, burrowing owls are restricted to the central valley extending from Redding south to the Grapevine, east through the Mojave Desert and west to San Jose, the San Francisco Bay area, the outer coastal foothills area which extend from Monterey south to San Diego and the Sonoran desert. It is a resident in the open areas of the lowlands over much of the Southern California region.

The burrowing owl occurs in shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), prairies, coastal dunes, desert floors, and some artificial, open areas as a year-long resident. They may also use areas such as, but not limited to, golf courses, cemeteries, road allowances within developed areas, airports, vacant lots, fairgrounds, abandoned buildings, and irrigation ditches. They require large open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small mammal burrows. As a critical habitat feature need, they require the use of rodent or other burrows for roosting and nesting cover. They may also dig their own burrow in soft, friable soil (as found in Florida) and may also use pipes, culverts, and nest boxes where burrows are scarce. The mammal burrows are modified and enlarged. One burrow is typically selected for use as the nest; however, satellite burrows are usually found within the immediate vicinity of the nest burrow within the defended territory of the owl.

One burrowing owl family group (including at least four juveniles) was detected on the Project site during field surveys. The family group was first detected on July 28, 2011 by GLA biologists while mapping smooth tarplant. Four burrowing owls were observed at a single burrow (western burrow) located approximately 88 meters (290 feet) east of Heacock Street and 55 meters (180 feet) south of Iris Avenue. Two more burrowing owls were detected at a burrow complex comprised of four burrows located approximately 134 meters (440 feet) south of Iris Avenue at the eastern property boundary (GLA 2011 29). Figure 4.3-2, *Burrowing Owl Location Map*, depicts the locations of the burrowing owls that were observed on site.

During the fourth focused owl survey (August 1, 2011), one adult and one juvenile burrowing owl were detected at the western burrow, and one juvenile owl was detected at the eastern burrow complex. The adult owl (presumably male based on appearance) appeared to have a USFWS aluminum band and green color band on its left leg. Because the burrowing owls were detected late in the breeding season, a fifth focused survey was conducted on August 4, 2011. During the August 4th survey, the banded adult and three juveniles were detected at the western burrow, and one juvenile was briefly detected at the eastern burrow complex (GLA 2011 29).

The western burrow complex is comprised of a single large (one-foot wide) excavated burrow. The burrow and adjacent area exhibited evidence of burrowing owl occupation including cast pellets; however, there was no indication of nesting material at or near the burrow entrance. Although the

entrances to the burrows are larger than ground squirrel burrows, the two areas are extremely difficult to see from ground level (GLA 2011 29-30).

The eastern burrow complex is composed of four burrows that are located immediately adjacent to the eastern property boundary. Three of the burrows appear to have been excavated by ground squirrels or rabbits. Three of the four burrows exhibited owl sign including cast pellets and feathers. Although there was no sign of nesting material at or near the burrow entrances, it is probable that a burrowing owl pair nested at this complex based on the amount of pellets and feathers (GLA 2011 30).

- *California Horned Lark (Eremophila alpestris actia)*

The Biological Technical Report (*Technical Appendix C* 30) provides a detailed description of the California horned lark. In summary, the species does not have a federal or state designation; however this species is on the State Watch List. Additionally, the California horned lark is a covered species under the MSHCP. The horned lark has a holarctic distribution, ranging from the Arctic south to central Asia and Mexico with outlying populations in Morocco and Colombia. In general, the northernmost populations are migratory, moving south during the winter into remaining areas of the breeding range.

The California horned lark is a common to abundant resident in a variety of open habitats, usually where trees and large shrubs are absent. Range-wide, California horned larks breed in level or gently sloping shortgrass prairie, montane meadows, "bald" hills, open coastal plains, fallow grain fields, and alkali flats. Within Southern California, California horned larks breed primarily in open fields, (short) grasslands, and rangelands. Grasses, shrubs, forbs, rocks, litter, clods of soil, and other surface irregularities provide cover.

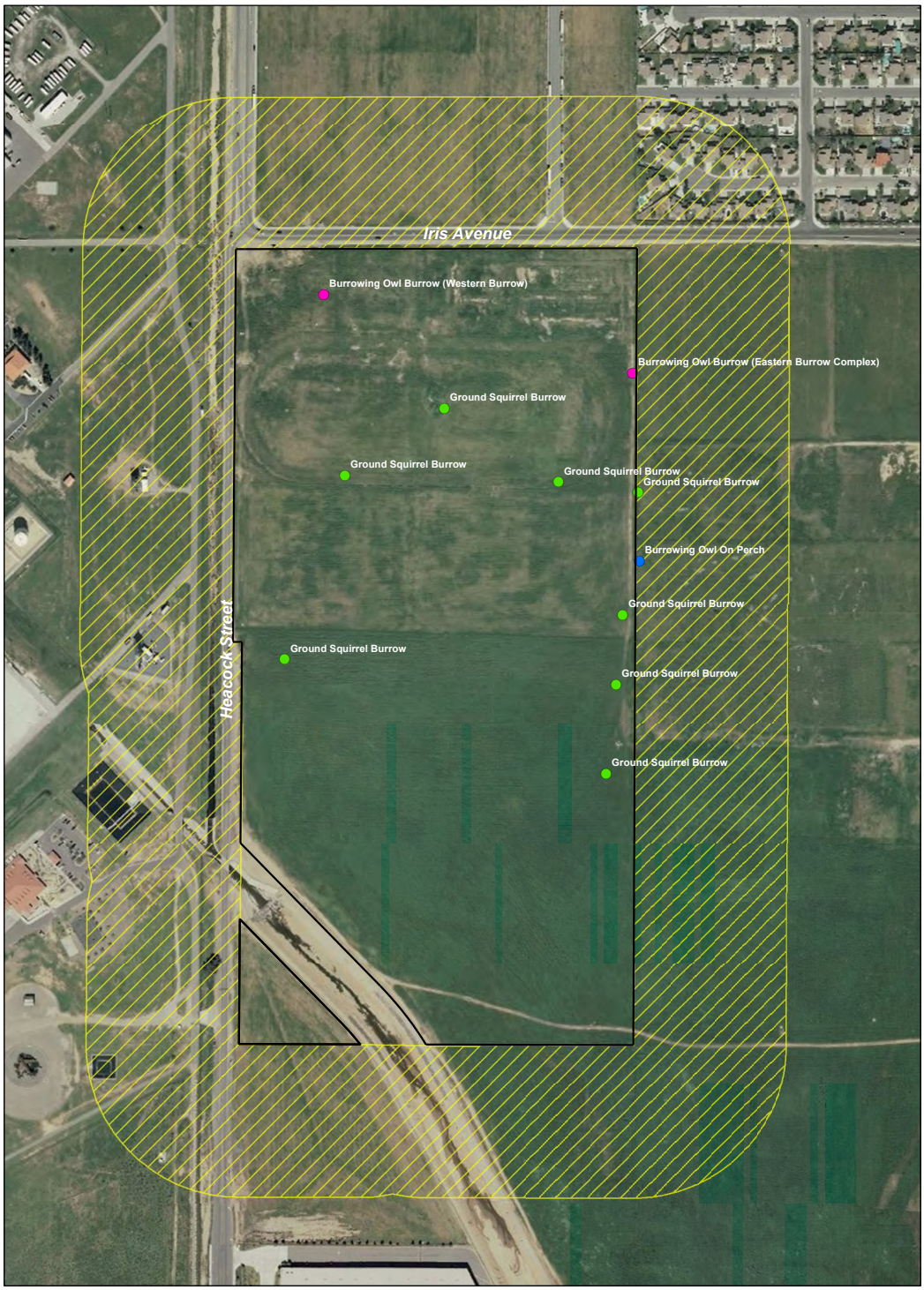
During habitat assessments conducted on the Project site, the California horned was observed in the ruderal/disked areas of the property. The California horned lark is a MSHCP covered species, indicating that any impacts to this species are covered by the MSHCP and mitigation for such impacts would not be required (GLA 2011 30).

❑ Special-Status Animals with a Potential to Occur On Site

Other special-status animals have some potential to occur at the Project site, but were not observed during biological surveys. These include the coastal western whiptail, orange-throated whiptail, ferruginous hawk, loggerhead shrike, and the San Diego black tailed jackrabbit. Refer to the Biological Technical Report (*Technical Appendix C* Sec. 4.3.2) for a detailed description of these species and their habitats.

E. Nesting Birds

The Project site supports low to medium height herbaceous vegetation with the potential to support nesting birds. Although no migratory birds were observed on the property, there is a potential that migratory bird species could use the property (GLA 2011 34). The Migratory Bird Treaty Act (MBTA) and CDFG Code prohibit impacts to nesting birds.



Source: Glenn Lukos (09-15-11)

Not to Scale

FIGURE 4.3-2
Burrowing Owl Location Map

F. Raptor Foraging Habitat

The Project site consists mostly of flat open fields with low-growing ruderal vegetation and annual grasses that can be utilized by raptors for foraging. There are no nesting opportunities for raptors on the site (GLA 2011 34).

G. MSHCP Riparian/Riverine Areas and Vernal Pools

The proposed Project includes an off-site impact area within the adjacent Perris Valley Channel, where the Project proposes to install a drainage outlet. This off-site area includes approximately 95 linear feet of the Channel, of which approximately 0.05 acre is considered to be a MSHCP riverine area, but does not support any riparian/wetland vegetation (GLA 2011 34). The Project site does not contain any MSHCP vernal pools.

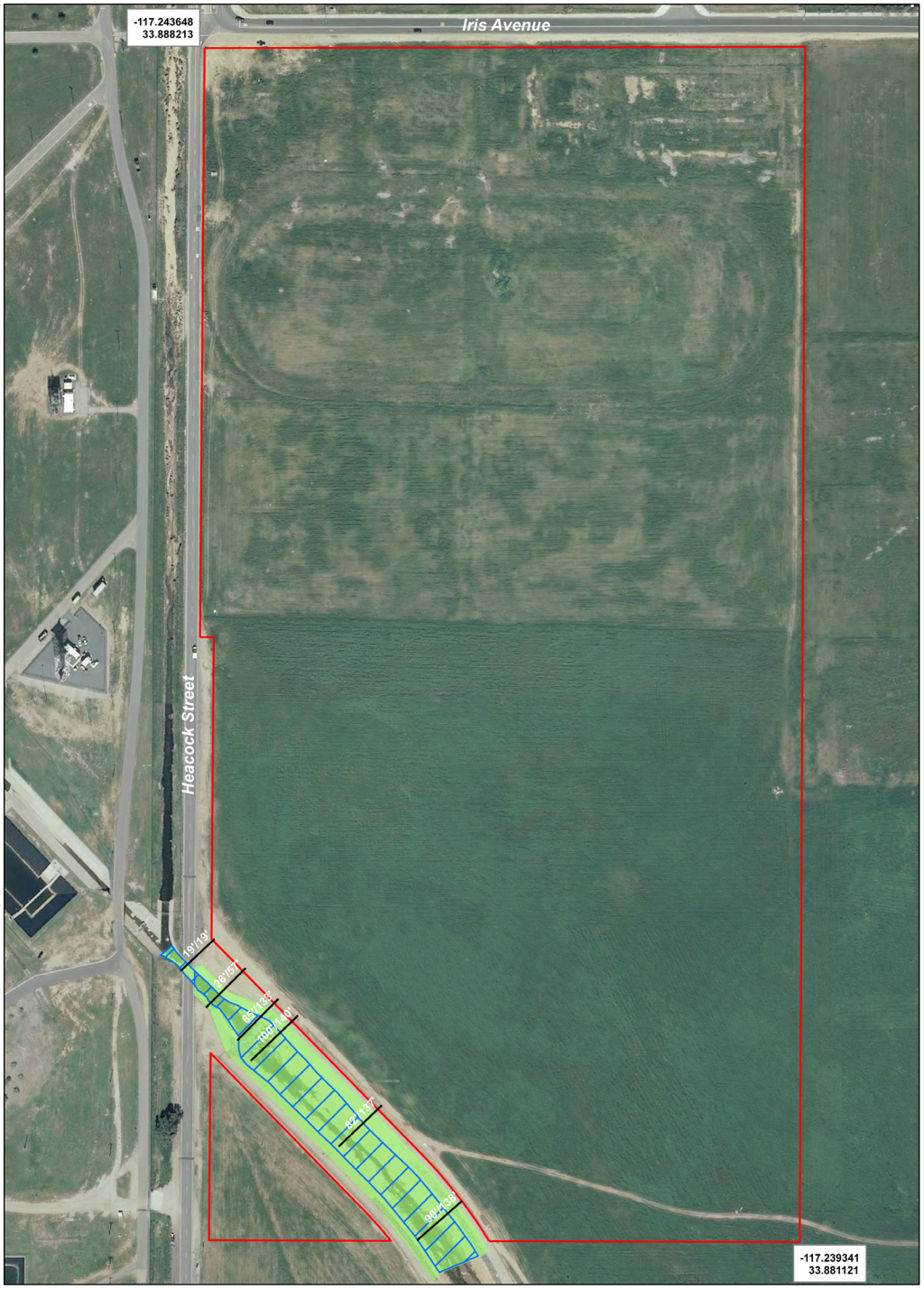
H. Jurisdictional Waters

The off-site Perris Valley Channel contains areas within the jurisdictions of the Corps, CDFG, and the RWQCB. The Project's off-site impact area in the Channel to install drainage outlets (totaling 95 linear feet) contains approximately 0.05 acre of Corps and RWQCB jurisdiction, none of which supports jurisdictional wetlands, and 0.07 acre of CDFG jurisdiction (GLA 2011 34). Figure 4.3-3, *Jurisdictional Delineation Map*, depicts the locations of the jurisdictional areas on site, which also are described below.

❑ Corps Jurisdiction

Corps jurisdiction within the off-site Channel that bisects the Project site totals 1.57 acres, none of which consists of jurisdictional wetlands, and includes 940 linear feet of ephemeral streambed. There is no Corps jurisdiction within the Project site and outside of the Channel. The Channel is an improved, ephemeral drainage feature, which accepts urban runoff from areas around March ARB and in the City of Moreno Valley (GLA 2011 Appdx D 12).

The segment of the Channel that bisects the Project site enters the study area from an existing culvert/bridge beneath Heacock Street along the western Project boundary and flows from north/ northwest to southeast for 940 linear feet as it bisects the property. The Channel ultimately discharges into the San Jacinto River, which is a tributary to Canyon Lake. Canyon Lake is a tributary to the downstream segment of the San Jacinto River, which in turn is a tributary of Lake Elsinore. Lake Elsinore empties into Alberhill Creek/Temescal Wash, which is a tributary of the Santa Ana River, which ultimately discharges to the Pacific Ocean, a Traditional Navigable Water (TNW). The Perris Valley Channel is an incised, somewhat improved, flood control channel with partially improved side slopes and a soft-bottom channel. The Channel supports an OHWM ranging in width from 19 to 100 feet and is evidenced by water marks, presence of litter and debris, changes in soil characteristics, wracking, and shelving. No vegetation is present within the Channel under existing conditions; therefore, no delineation data pits were necessary as no potential wetland areas are present (GLA 2011 Appx D 12).



Source: Glenn Lukos (09-15-11)

Not to Scale

FIGURE 4.3-3
Jurisdictional Delineation Map

❑ Regional Water Quality Control Board Jurisdiction

The Perris Valley Channel is a Corps jurisdictional water subject to regulation pursuant to Section 401 and 404 of the CWA and does not need to be addressed separately by the RWQCB pursuant to Section 13260 of the CWC (i.e., the Porter-Cologne Act) (GLA 2011 Appdx D 12).

❑ CDFG Jurisdiction

CDFG jurisdiction associated with the segment of the Perris Valley Channel that bisects the Project site totals 2.51 acres, none of which consists of vegetated riparian habitat, and includes 940 linear feet of ephemeral streambed. No areas of CDFG jurisdiction are present on the Project site and outside the limits of the Channel.

I. Regulatory Setting

The proposed Project is subject to state and federal regulations associated with a number of regulatory programs. These programs often overlap and were developed to protect natural resources, including: state and federally listed plants and animals; aquatic resources including rivers and creeks, ephemeral streambeds, wetlands, and areas of riparian habitat; other special-status species which are not listed as threatened or endangered by the state or federal governments; and other special-status vegetation communities. Provided below is an overview of the federal, state, and regional laws, regulations, and requirements that apply to the proposed Project. For more information, refer to *Technical Appendix C.*

❑ State and/or Federally Listed Plants and Animals

- *State of California Endangered Species Act*

California's Endangered Species Act (CESA) provides definitions for endangered species, threatened species, and candidate species of California. Listed endangered and threatened species are protected by the CESA and candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Article 3, Sections 2080 through 2085, of the CESA addresses the taking of threatened, endangered, or candidate species by stating "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided." Under the CESA, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require permits or memoranda of understanding and can be authorized for endangered species, threatened species, or candidate species for scientific, educational, or management purposes and for take incidental to otherwise lawful activities. Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

- *Federal Endangered Species Act*

The Federal Endangered Species Act of 1973 provides definitions for endangered species and threatened species of the U.S. Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to "take" any listed species. "Take" is defined in Section 3(18) of FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification that result in injury to, or death of species as forms of "take." These

interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a federal agency for an action that could affect a federally listed plant and animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

- *State and Federal Take Authorizations for Listed Species*

Federal or state authorizations of impacts to or incidental take of a listed species by a private individual or other private entity would be granted in one of the following ways:

- Section 7 of the FESA stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat. 16 U.S.C. 1536(a)(2).
- In 1982, the FESA was amended to give private landowners the ability to develop Habitat Conservation Plans (HCPs) pursuant to Section 10(a) of the FESA. Upon development of an HCP, the USFWS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.
- Sections 2090-2097 of the California Endangered Species Act (CESA) require that the state lead agency consult with CDFG on projects with potential impacts on state-listed species. These provisions also require CDFG to coordinate consultations with USFWS for actions involving federally listed as well as state-listed species. In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFG to adopt the federal incidental take statement or the 10(a) permit as its own based on its findings that the federal permit adequately protects the species under state law.

- *Take Authorizations Pursuant to the MSHCP*

The Western Riverside County MSHCP, a regional HCP, was adopted on June 17, 2003, and an Implementing Agreement (IA) was executed between the USFWS, CDFG, and participating entities. The intent of the MSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. As such, the MSHCP is intended to streamline review of individual projects with respect to the species and habitats addressed in the MSHCP, and to provide for an overall Conservation Area that would be of greater benefit to biological resources than would result from a piecemeal regulatory approach. The MSHCP provides coverage (including take authorization for listed species) for special-status plant and animal species, as well as mitigation for impacts to sensitive species.

Through agreements with the USFWS) and the CDFG, the MSHCP designates 146 special-status animal and plant species that receive some level of coverage under the plan. Of the 146 "Covered Species" designated under the MSHCP, the majority of these species have no additional survey/conservation requirements. In addition, through project participation with the MSHCP, the MSHCP provides mitigation for project-specific impacts to Covered Species so that the impacts

would be reduced to below a level of significance pursuant to CEQA. As noted above, project-specific survey requirements exist for species designated as "Covered Species not yet adequately conserved" (Volume I, Section 6.1.2 of the MSHCP document). As the MSHCP's survey requirements relate to the Project site, surveys are required on the Project site for the western burrowing owl.

❑ Regulations Related to Jurisdictional Waters and Wetlands

- *Army Corps of Engineers*

Pursuant to Section 404 of the CWA, the Corps regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in Corps regulations at 33 CFR Part 328.3(a). In the absence of wetlands, the limits of Corps jurisdiction in non-tidal waters, such as intermittent streams, extend to the OHWM which is defined at 33 CFR 328.3(e). Two decisions that have clarified the definition of Corps jurisdiction are "Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al." and "Rapanos v. United States and Carabell v. United States," which are summarized in the Biological Technical Report. For more information, refer to Appendix D to the Biological Technical Report (*Technical Appendix C* to this EIR).

Corps Preliminary Jurisdictional Determination

A *Corps Preliminary Jurisdictional Determination Form* may be used to concede Corps jurisdiction where all streambeds within a project area are considered Corps jurisdictional waters. The project would be able to move forward pursuant to Corps Regulatory Guidance Letter (RGL) 08-02, issued on June 26, 2008, which allows the Corps to issue preliminary jurisdictional determinations (Preliminary JD) for a project. A Preliminary JD allows a project to move forward by setting aside/voluntarily waiving questions regarding CWA jurisdiction over drainages on site in the interest of allowing expeditiously obtaining a Section 404 Permit.

As stated in RGL 08-02:

> *While a landowner, permit applicant, or other affected party can elect to request and obtain an approved JD, he or she can also decline to request an approved JD, and instead obtain a Corps individual or general permit authorization based on either a preliminary JD, or, in appropriate circumstances (such as authorizations by non-reporting nationwide general permits), no JD whatsoever. The Corps will determine what form of JD is appropriate for any particular circumstance based on all the relevant factors, to include, but not limited to, the applicant's preference, what kind of permit authorization is being used (individual permit versus general permit), and the nature of the proposed activity needing authorization.*

A copy of the Corps' Preliminary JD form for the Project site is attached as Appendix A to the Jurisdictional Delineation report contained within Appendix D to the Biological Technical Report (*Technical Appendix C* to this EIR).

Wetlands Definition Pursuant to Section 404 of the Clean Water Act

The term "wetlands" (a subset of "waters of the United States") is defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987 the Corps published a manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the 1987 Wetland Delineation Manual and the Arid West Supplement generally require that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the manual and Supplement provide great detail in methodology and allow for varying special conditions, a wetland should normally meet each of the following three criteria:

- More than 50% of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the National List of Plant Species that Occur in Wetlands);
- Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and
- Whereas the 1987 Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least 5% of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative criteria with the exception for areas with "problematic hydrophytic vegetation", which require a minimum of 14 days of ponding to be considered a wetland.

- *Regional Water Quality Control Board*

Section 13260 of the CWC (i.e., the Porter-Cologne Act)

Clean Water Act Section 401 requires federal agencies to obtain a Water Quality Certification from the Regional Water Quality Control Board before issuing permits that would result in increased pollutant loads to a water body. A Section 401 certification can be issued only if increased pollutant loads would not cause or contribute to exceedances of water quality standards. Subsequent to the decision in "Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.," the Chief Counsel for the State Water Resources Control Board issued a memorandum that addressed the effects of that decision on the Section 401 Water Quality Certification Program.

> *California's right and duty to evaluate certification requests under section 401 is pendant to (or dependent upon) a valid application for a section 404 permit from the Corps, or another application for a federal license or permit. Thus if the Corps determines that the water body in question is not subject to regulation under the COE's 404 program, for instance, no application for 401 certification will be required…*

For more information about the memorandum, refer to Appendix D to the Biological Technical Report, (*Technical Appendix C* to this EIR).

- *California Department of Fish and Game*

Pursuant to Division 2, Chapter 6, Section 1602 of the California Fish and Game Code, the CDFG regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. CDFG jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife. The CDFG Legal Advisor has prepared the following opinion:

- Natural waterways that have been subsequently modified and which have the potential to contain fish, aquatic insects and riparian vegetation will be treated like natural waterways...
- Artificial waterways that have acquired the physical attributes of natural stream courses and which have been viewed by the community as natural stream courses, should be treated by [CDFG] as natural waterways...
- Artificial waterways without the attributes of natural waterways should generally not be subject to Fish and Game Code provisions...

Thus, CDFG jurisdictional limits closely mirror those of the Corps. Exceptions are CDFG's exclusion of isolated wetlands (those not associated with a river, stream, or lake), the addition of artificial stock ponds and irrigation ditches constructed on uplands, and the addition of riparian habitat supported by a river, stream, or lake regardless of the riparian area's federal wetland status.

4.3.2 BASIS FOR DETERMINING SIGNIFICANCE

Environmental impacts to biological resources are assessed using impact significance threshold criteria, which reflect the policy statement contained in CEQA, §21001(c) of the California Public Resources Code. Accordingly, the State Legislature has established it to be the policy of the State of California to:

> *"Prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities..."*

In the development of thresholds of significance for impacts to biological resources, CEQA provides guidance primarily in §15065, Mandatory Findings of Significance, and the CEQA Guidelines, Appendix G, Environmental Checklist Form. CEQA Guidelines §15065(a) states that a project may have a significant effect where:

> *"The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, reduce the number or restrict the range of an endangered, rare, or threatened species, ..."*

Therefore, for the purpose of analysis in this EIR, the proposed Project would result in a significant impact to biological resources if the Project or any Project-related component would:

1. *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional*

plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service;

2. *Have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U. S. Wildlife Service;*

3. *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;*

4. *Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites;*

5. *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or*

6. *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or state habitat conservation plan.*

4.3.3 IMPACT ANALYSIS

Threshold 1:	***Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?***

- *Impacts to Vegetation/Land Use Types*

As indicated previously in Table 4.3-1, the Project site consists only of Ruderal and Disturbed/Developed habitat. Neither of these habitat types is considered habitat for any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations (GLA 2011 37). As such, Project impacts to 73.96 acres of Ruderal habitat and 1.09 acre of Disturbed/Developed habitat would be less than significant and mitigation would not be required.

- *Impacts to Special-Status Plants*

The proposed Project would impact one special-status plant (smooth tarplant) by removal of the species from the Project site. Although the smooth tarplant is a MSHCP Criteria Area Plant, the Project site does not occur within the CAPSSA; therefore, there are no avoidance or mitigation requirements applicable to the smooth tarplant population on the Project pursuant to the MSHCP (GLA 2011 37). Impacts to smooth tarplant are potentially significant, but are reduced to below a level of significance with the Project's mandatory participation and compliance with the MSHCP.

- *Impacts to Special-Status Animals*

The Project has the potential to impact special-status animals. The Project would eliminate actual or potential live-in habitat for the burrowing owl, California horned lark, coastal western whiptail, orange-throated whiptail, and the San Diego black-tailed jackrabbit. In addition, the Project would eliminate foraging habitat on the Project site for the loggerhead shrike, ferruginous hawk, and other

raptors. Impacts to special-status animals are potentially significant; however, only the burrowing owl has project-specific mitigation requirements pursuant to the MSHCP (GLA 2011 37). Impacts to the California horned lark, coastal western whiptail, orange-throated whiptail, San Diego black-tailed jackrabbit, loggerhead shrike, ferruginous hawk, and other raptors would be less than significant as there are no avoidance or mitigation requirements specified by the MSHCP that would apply to the proposed Project, and because adequate habitat for the long-term conservation of these species would be provided through implementation of the MSHCP Conservation Areas. The Project's impacts to these species would be reduced to below a level of significance with the Project's mandatory participation and compliance with the MSHCP.

Objective 5 of the MSHCP species-specific conservation objectives for the burrowing owl states that for sites that are outside of the Criteria Area (such as the proposed Project site), at least 90% of the area with long-term conservation value shall be conserved on site if the site (including adjacent areas) supports three or more pairs of burrowing owls, supports greater than 35 acres of suitable habitat, and is non-contiguous with MSHCP Conservation Area lands. The Project site is not located within the Criteria Area and does support three or more pairs of burrowing owls; thus, the 90-percent conservation requirement does not apply to the Project and burrowing owls may be relocated from the site pursuant to MSHCP Objectives 5 and 6 (GLA 2011 37). A significant impact could occur if burrowing owls located on the Project site are not relocated pursuant to MSHCP Objectives 5 and 6 for this species. Project impacts to burrowing owls that may be present on the site prior to grading of the Project site for development represents a significant impact for which mitigation would be required.

- *Impacts to Nesting Birds*

Vegetation clearing and grading associated with the Project has the potential to impact nesting birds if these activities are conducted during the nesting season (GLA 2011 38). Impacts to nesting birds, including burrowing owls, are prohibited by the Migratory Bird Treaty Act and California Fish and Game Code, and therefore represent potentially significant impacts for which mitigation would be required.

- *Indirect Impacts to Special-Status Biological Resources*

The Project would not result in significant indirect impacts to special-status biological resources. The Project is not located adjacent to the MSHCP Conservation Area; therefore, the Project is not required to implement measures pursuant to the MSHCP Urban Wildland Interface Guidelines specified in Volume I, Section 6.1.4 of the MSHCP (GLA 2011 38). There are no other components of the proposed Project that could indirectly impact special status biological resources. Accordingly, a significant indirect impact to candidate, sensitive, or special status species would not occur.

Threshold 2:	***Would the Project have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Wildlife Service?***

Off-site improvements within the Parris Valley Storm Drain Channel proposed as part of the Project would impact 0.05 acre of Corps jurisdiction, none of which consists of jurisdictional USFWS wetlands; 0.05 acre of RWQCB jurisdiction, none of which consists of jurisdictional wetlands; and

would result in permanent impacts to 0.06 acre of CDFG jurisdiction, none of which contains vegetated riparian habitat (GLA 2011 38).

Of these areas subject to impact, approximately 0.05-acre is classified as unvegetated MSHCP riverine areas. *Volume 1, Section 6.1.2* of the MSHCP states that unavoidable impacts to MSHCP Riverine Areas shall be mitigated such that the lost functions and values as they relate to Covered Species are replaced as set forth under the Determination of Biologically Equivalent or Superior Preservation (DBESP) requirements. However, the Project's minor impact (0.05-acre) to unvegetated streambed would not result in a loss of functions and values as it relates to MSHCP Covered Species. As such, Project impacts to 0.05 acre of MSHCP riverine areas represents a less than significant impact that is not subject to the DBESP requirements; accordingly, the impact would be less than significant and mitigation would not be required (GLA 2011 38). Project impacts to jurisdictional areas are discussed below.

- *U.S. Army Corps of Engineers Jurisdiction*

The segment of the Perris Valley Channel that bisects the Project site contains 1.57 acres of Corps jurisdiction, none of which consists of jurisdictional wetlands, and 940 linear feet of streambed. The proposed Project would permanently impact 0.05-acre of Corps jurisdiction, none of which consists of jurisdictional wetlands (GLA 2011 38). A total of a 95 linear feet of streambed would be permanently disturbed. Table 4.3-2, *Permanent Impacts to Corps Jurisdiction*, depicts permanent impacts to Corps jurisdiction, while Figure 4.3-4, *Jurisdictional Impact*, graphically depicts the location and extent of impacts to Corps jurisdictional areas. Project impacts to 0.05-acre of Corps jurisdictional areas (95 linear feet) would require the issuance of a Section 404 permit from the Corps, which is identified as a Project Requirement in Subsection 4.3.5. There would be no adverse effects on any riparian habitat or other sensitive natural community regulated by the Corps.

Table 4.3-2 Permanent Impacts to Corps Jurisdiction

DRAINAGE FEATURE(S)	TOTAL CORPS JURISDICTION (ACRES)	LENGTH OF DRAINAGE (FEET)	TOTAL PERMANENT IMPACTS TO CORPS JURISDICTION (ACRES)	LINEAR-FOOT IMPACTS (FEET)
Perris Valley Channel	1.57	940	0.05	95
Total	**1.57**	**940**	**0.05**	**95**

Source: GLA 2011 Appdx E, Table One.

- *Regional Water Quality Control Board Jurisdiction*

The segment of the Perris Valley Channel that bisects the Project site contains 1.57 acres of RWQCB jurisdiction, none of which consists of jurisdictional wetlands, and 940 linear feet of streambed. The Project, as proposed, would permanently impact 0.05-acre of RWQCB jurisdiction, none of which consists of jurisdictional wetlands. A total of a 95 linear feet of streambed would be permanently disturbed (GLA 2011 Appdx E 2). Table 4.3-3, *Permanent Impacts to RWQCB Jurisdiction*, depicts Project impacts to RWQCB jurisdictional areas, which also are presented graphically on Figure 4.3-4. Project impacts to 0.05-acre of RWQCB jurisdictional areas would require a permit from the RWQCB, which is identified as a Project Requirement in Subsection 4.3.5. There would be no

adverse effects on any riparian habitat or other sensitive natural community regulated by the RWQCB.

Table 4.3-3 Permanent Impacts to RWQCB Jurisdiction

DRAINAGE FEATURES	TOTAL REGIONAL BOARD JURISDICTION (ACRES)	LENGTH OF DRAINAGE (FEET)	TOTAL PERMANENT IMPACTS TO REGIONAL BOARD JURISDICTION (ACRES)	LINEAR-FOOT IMPACTS (FEET)
Perris Valley Channel	1.57	940	0.05	95
Total	**1.57**	**940**	**0.05**	**95**

Source: GLA 2011 Appdx E, Table Two.

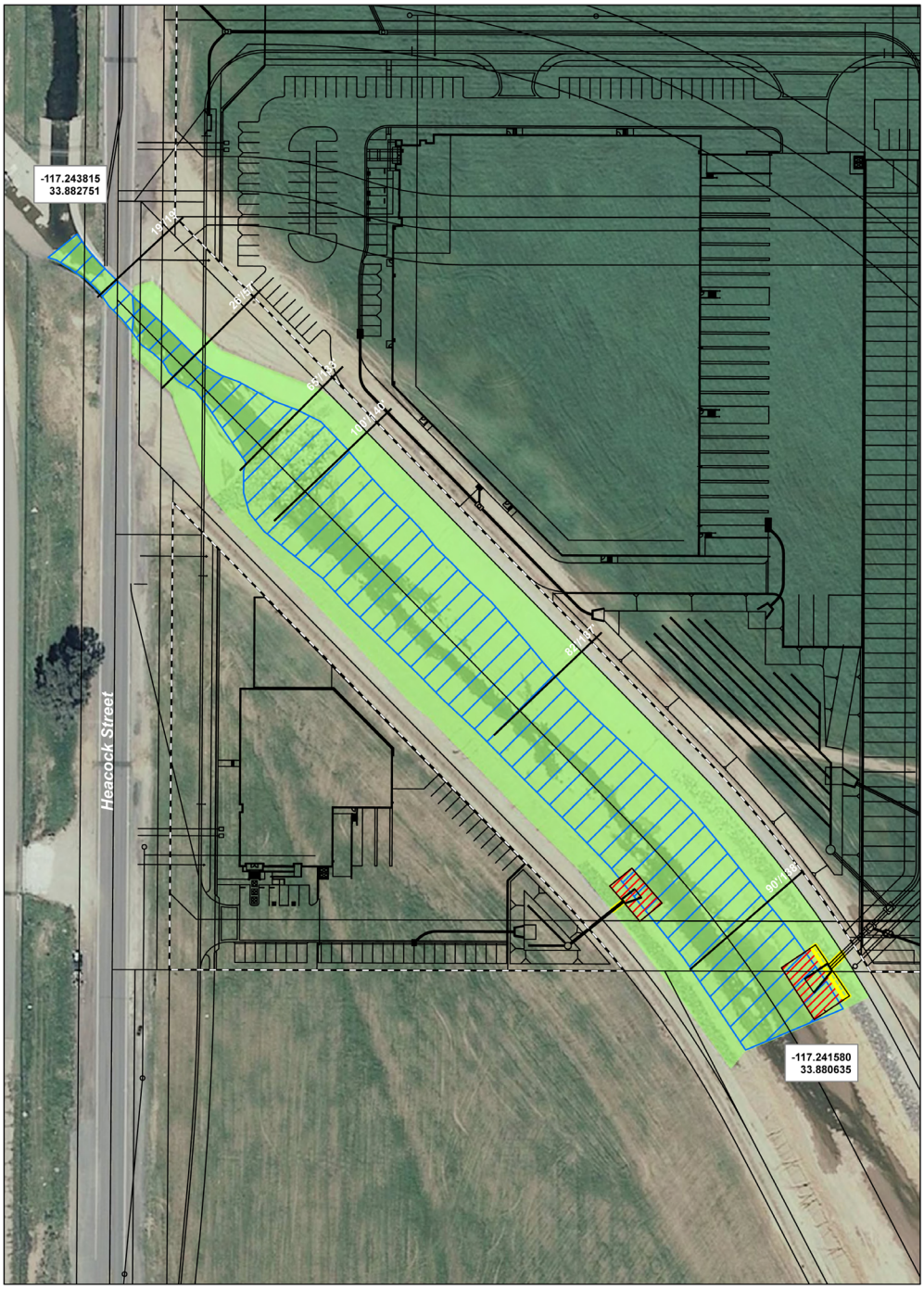
- *Impacts to CDFG Jurisdiction*

The segment of the Perris Valley Channel that bisects the Project site contains a total of 2.51 acres of CDFG jurisdiction, none of which consist of vegetated riparian habitat, and 940 linear feet of streambed. The Project, as proposed, would temporarily impact 0.01-acre of CDFG jurisdiction, none of which consists of vegetated riparian habitat, and permanently impact 0.06-acre of CDFG jurisdiction, none of which consists of vegetated riparian habitat (GLA 2011 Appdx E 2-3). The Project also would result in permanent impacts to 95 linear feet of streambed. Table 4.3-4, *Temporary Impacts to CDFG Jurisdiction*, summarizes the Project's temporary impacts to CDFG jurisdiction and Table 4.3-5, *Permanent Impacts to CDFG*, summarizes the Project's permanent impacts to CDFG jurisdiction. Impacts to CDFG jurisdictional areas also are depicted on Figure 4.3-4. The proposed Project's temporary impacts to 0.01-acre of CDFG jurisdictional areas and permanent impacts to 0.06-acre of CDFG jurisdictional areas would require a permit from the CDFG, which is identified as a Project Requirement in Subsection 4.3.5. There would be no adverse effects on any riparian habitat or other sensitive natural community regulated by the CDFG.

Table 4.3-4 Temporary Impacts to CDFG Jurisdiction

DRAINAGE FEATURES	TOTAL CDFG JURISDICTION (ACRES)	LENGTH OF DRAINAGE (FEET)	TOTAL TEMPORARY IMPACT TO CDFG JURISDICTION (ACRES)	LINEAR-FOOT IMPACTS (FEET)
Perris Valley Channel	2.51	940	0.01	N/A*
Total	**2.51**	**940**	**0.01**	**N/A***

*Temporary linear-foot impacts to CDFG jurisdiction would not occur because the temporary impact area is inclusive of the permanent linear-foot impact area (refer to Table 4.3-5).
Source: GLA 2011 Appdx E, Table Three.



Source: Glenn Lukos (09-15-11)

Not to Scale

FIGURE 4.3-4
Jurisdictional Impact Map

Table 4.3-5 Permanent Impacts to CDFG Jurisdiction

DRAINAGE FEATURES	TOTAL CDFG JURISDICTION (ACRES)	LENGTH OF DRAINAGE (FEET)	TOTAL PERMANENT IMPACT TO CDFG JURISDICTION (ACRES)	LINEAR-FOOT IMPACTS (FEET)
Perris Valley Channel	2.51	940	0.06	95
Total	**2.51**	**940**	**0.06**	**95**

Source: GLA 2011 Appdx E, Table Four.

Threshold 3: Would the Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

As indicated previously in Subsection 4.3.1H, no federally protected wetlands or riparian areas are located on the property or in the Project's off-site impact area; therefore, direct impacts to federally protected wetlands and riparian areas have no potential to occur (GLA 2011 38). With issuance of a required U.S. Army Corps of Engineers Section 404 Permit for the Project's 0.05-acre impact to 95 linear feet of jurisdictional streambed (discussed above under Threshold 3), the Project would not have a substantial adverse effect on any federally protected wetlands through direct removal, filling, hydrological interruption, or other means.

Threshold 4: Would the Project interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?

As noted previously, although the Project site occurs within the MSHCP Plan Area, it is not located within or adjacent to any areas proposed for conservation, including areas identified as proposed or existing linkages (including constrained linkages). The MSHCP Reserve Area was designed to ensure the establishment and/or preservation of wildlife movement corridors, and because the Project site is not located in areas targeted for conservation for such purposes, Project implementation would not interfere substantially with the movement of any wildlife species. Additionally, there are no native wildlife nursery sites in close proximity to the proposed Project, and areas surrounding the site include areas of urban development or areas planned for urban development that do not facilitate wildlife movement. Accordingly, the Project would not result in any impacts to wildlife movement corridors or native wildlife nursery sites.

Threshold 5: Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

EIR Subsection 4.9, Land Use and Planning, provides an extensive analysis of the proposed Project's consistency with all applicable local and regional policies, and concludes that the Project would not result in any significant conflicts with any policies related to the protection of biological resources. In addition, the proposed Project would be required to comply with CEQA and the mandatory payment of MSHCP fees pursuant to Title 3, Chapter 3.48 of the City's Municipal Code. Although the City of Moreno Valley's Landscape Ordinance requires that "all mature trees on a site with 4" calipers or greater in place shall be retained and preserved," the proposed Project would not conflict

with the Landscape Ordinance requirements because no such trees exist on the site. The City of Moreno Valley does not have any additional ordinances in place protecting biological resources. Therefore, a significant impact would not occur.

Threshold 6: ***Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or state habitat conservation plan?***

The following is an analysis of the proposed Project's compliance with the Western Riverside County MSHCP's Reserve Assembly Requirements as well as other applicable MSHCP requirements pursuant to the following sections of the MSHCP: Section 6.1.2, *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools*; Section 6.1.3, *Protection of Narrow Endemic Plant Species*; Section 6.1.4, *Guidelines Pertaining to the Urban/Wildland Interface*; and Section 6.3.2, *Additional Survey Needs and Procedures.*

❒ Project Relation to Reserve Assembly

The Project site occurs within the overall Plan Area of the MSHCP, and as such the Project is required to abide by any applicable survey and/or conservation requirements. As indicated in the discussion below, all surveys required by the MSHCP have been conducted on the proposed Project site and off-site improvement areas. However, the Project site does not occur within the MSHCP Criteria Area. As such, the Project is not required to set aside conservation lands pursuant to the MSHCP, and the Project is not subject to the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process, or Joint Project Review (JPR). Accordingly, the proposed Project would not conflict with the MSHCP Reserve Assembly requirements (GLA 2011 40).

❒ Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools

As discussed under Threshold 2, above, the proposed Project would permanently impact 0.05-acre of MSHCP Riverine Areas associated with the Project's proposed off-site drainage improvements within the Perris Valley Channel. *Volume 1, Section 6.1.2* of the MSHCP states that unavoidable impacts to MSHCP Riverine Areas shall be mitigated such that the lost functions and values as they relate to Covered Species are replaced as set forth under the DBESP requirements. However, the Project's minor impacts to unvegetated streambed would not result in a loss of functions and values as it relates to MSHCP Covered Species. As such, Project impacts to 0.05-acre of MSHCP riverine areas represents a less than significant impact that is not subject to the DBESP requirements; accordingly, the proposed Project would comply with *Volume 1, Section 6.1.2* of the MSHCP and a significant impact would not occur (GLA 2011 40).

❒ Protection of Narrow Endemic Plants

Section 6.1.3 of the MSHCP requires that within the Narrow Endemic Plant Species Survey Area (NEPSSA), site-specific focused surveys for Narrow Endemic Plant Species will be required for all public and private projects where appropriate soils and habitat are present. The Project site and off-site improvement areas are not located within the NEPSSA; therefore, focused surveys are not required for any of the Narrow Endemic Plants on the Project site. Accordingly, the proposed Project would not conflict with Volume I, Section 6.1.3 of the MSHCP, and a significant impact would not occur (GLA 2011 40).

❒ Guidelines Pertaining to the Urban/Wildland Interface

The MSHCP Urban/Wildland Interface Guidelines are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area. As the MSHCP Conservation Area is assembled, development is expected to occur adjacent to the Conservation Area and edge effects with the potential to adversely affect biological resources within the Conservation Area are required to be evaluated. Edge effects are identified in the MSCHP as: Drainage; Toxics; Lighting; Noise; Invasive Species; Barriers; and Grading/Land Development. The Project site does not occur within or adjacent to the MSCHP Criteria Area or existing Conservation Area, or any Public/Quasi-Public lands. As such, the proposed Project would not have the potential to create indirect effects on the MSHCP Conservation Area and is not be subject to the Urban/Wildland Interface Guidelines (GLA 2011 41). The Project, therefore, is consistent with Section 6.1.4 of the MSHCP.

❒ Additional Survey Needs and Procedures

MSHCP Section 6.3.2 identifies that in addition to the Narrow Endemic Plant Species addressed in Section 6.1.3, additional surveys may be needed for other certain plant and animal species in conjunction with MSHCP implementation in order to achieve full coverage for these species. Within areas of suitable habitat, focused surveys are required for additional plant species if a project site occurs within a designated CAPSSA, or special animal species survey area (i.e., burrowing owl, amphibians, and mammals). Of these, the Project site only occurs within the MSHCP burrowing owl survey area (GLA 2011 41).

As discussed above under the analysis of Threshold 1, implementation of the proposed Project would result in the loss of occupied burrowing owl habitat. However, since the Project site supports fewer than three owl pairs, the MSHCP requirements allow for the owls to be relocated from the site prior to commencement of construction activities pursuant to Objectives 5 and 6 of the MSHCP objectives for the burrowing owl.

4.3.4 CUMULATIVE IMPACT ANALYSIS

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects in the vicinity of the Project site and resulting from full General Plan buildout in the City of Moreno Valley and other jurisdictions in the region within the boundaries of the Western Riverside County MSHCP.

Implementation of the proposed Project would result in permanent ground disturbance to the 75.05-acre Project site, an off-site impact in the Perris Valley Channel to construct a drainage outlet, and additional off-site impacts within the Heacock Street public right-of-way for the installation of sewer line improvements. The primary effects of the proposed Project, when considered with the build out of long range plans in the region, would be the cumulative loss of vacant land that can support habitat for sensitive species. With respect to special-status species, although habitat offered on the Project site (ruderal vegetation and disturbed/developed vegetation) is of substantially lesser quality than habitat that is found in undisturbed natural areas, it still provides open spaces for foraging, refuge, nesting, and areas that can be used for species reproduction.

Anticipated cumulative impacts have been addressed within the region by the Western Riverside County MSHCP. The MSHCP, as currently adopted, addresses 146 “Covered Species” that represent a broad range of habitats and geographical areas within Western Riverside County,

including threatened and endangered species and regionally- or locally-sensitive species that have specific habitat requirements and conservation and management needs. The MSHCP addresses biological impacts for take of Covered Species within the MSHCP area. Impacts to Covered Species and establishment and implementation of a regional conservation strategy and other measures included in the MSHCP are intended to address the federal, state, and local mitigation requirements for these species and their habitats. Specifically, Section 4.4 of the MSHCP states that:

> *The MSHCP was specifically designed to cover a large geographical area so that it would protect numerous endangered species and habitats throughout the region. It is the projected cumulative effect of future development that has required the preparation and implementation of the MSHCP to protect multiple habitats and multiple endangered species.*

It goes on to state that:

> *The LDMF [Local Development Mitigation Fee] is to be charged throughout the Plan Area to all future development within the western part of the County and the Cities in order to provide a coordinated conservation area and implementation program that will facilitate the preservation of biological diversity, as well as maintain the region's quality of life.*

The reason for the imposition of the Mitigation Fee over the entire region is that the loss of habitat for endangered species is a regional problem resulting from the cumulative impacts of continuing development throughout all of the jurisdictions in Western Riverside County. Finally, Section 5.1 of the MSHCP states that:

> *It is anticipated that new development in the Plan Area will fund not only the mitigation of the impacts associated with its proportionate share of regional development, but also the impacts associated with the future development of more than 332,000 residential units and commercial and industrial development projected to be built in the Plan Area over the next 25 years.*

As the construction of buildings, infrastructure, and all alterations of the land within areas that are outside of the Criteria Area are permitted under the MSHCP (see MSHCP Section 2.3.7.1), cumulative impacts to biological resources with the exception of MSHCP non-covered species would be less than significant provided that the terms of the MSHCP are fully implemented (MSHCP Final EIR/EIS, Section 4.4.1.6). The MSHCP database has been consulted for the proposed Project and the recommended focused surveys (for the western burrowing owl) have been conducted. The Project is required to pay the required MSHCP mitigation fees per the City of Moreno Valley Municipal Code Title 3, Chapter 3.48. The Project would comply with the requirements of the MSHCP and, thus, would not conflict with its adopted policies. Accordingly, because the Project complies with the MSHCP, would pay the required MSHCP mitigation fee, and would have less than significant impacts to MSHCP non-covered species, the proposed Project's contribution to cumulative impacts would be less than significant.

As indicated under the discussion and analysis of Threshold 1 in Subsection 4.3.3, the Project site does not contain any habitat for any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations. Accordingly, the Project would not result in any cumulatively significant impacts to sensitive species as a result of habitat loss.

Although the Project would impact one special status plant (smooth tarplant), the Project site does not occur within the MSHCP's CAPSSA, indicating that the species is not targeted for conservation in the Project area and would be conserved instead as part of the assemblage of the MSHCP Reserve System. Since the proposed Project and all other developments within the cumulative study area would be required to comply with the MSHCP, Project impacts to special-status plants are evaluated as less than significant on a cumulative basis.

Regarding special-status animals, the Project would eliminate actual or potential live-in habitat for the burrowing owl, California horned lark, coastal western whiptail, orange-throated whiptail, and the San Diego black-tailed jackrabbit. In addition, the Project would eliminate foraging habitat for the loggerhead shrike, ferruginous hawk, and other raptors. With exception of the burrowing owl, none of these species has project-specific mitigation requirements pursuant to the MSHCP. As the proposed Project and other cumulative developments would be required to comply with the MSHCP, Potential Project-related impacts to California horned lark, coastal western whiptail, orange-throated whiptail, San Diego black-tailed jackrabbit, loggerhead shrike, ferruginous hawk, and other raptors are concluded to be less than significant on a cumulative basis because adequate habitat for these species would be accommodated through the MSHCP Reserve System. The burrowing owl is fairly ubiquitous within the Project vicinity; as such, it is reasonable to conclude that impacts to habitat for this species are occurring throughout the cumulative study area. As such, prior to mitigation, the proposed Project's impacts to burrowing owls that may be located on the site are evaluated as cumulatively significant and mitigation would be required.

Similarly, the proposed Project has the potential to impact nesting birds if construction activities occur during the nesting season. Impacts to nesting birds, including burrowing owls, are prohibited by the Migratory Bird Treaty Act and California Fish and Game Code. As nesting birds, including the burrowing owl, occur throughout the Project's cumulative study area, and because the Project has the potential to result in significant impacts to nesting birds, the Project also would result in a cumulatively significant impact to nesting birds prior to mitigation.

The proposed Project would result in impacts to jurisdictional areas, including impacts to 0.05-acre of Corps jurisdiction, 0.05-acre of RWQCB jurisdiction, and 0.06-acre of CDFG jurisdiction (including 0.01-acre of temporary impact to CDFG jurisdiction). Impacts to jurisdictional areas require the issuance of permits from the Corps, RWQCB and CDFG. With issuance of the required permits, cumulative impacts are reduced to below levels of significance. The Project would not impact any wetlands or riparian areas; thus, the Project does not have the potential to contribute to cumulatively significant wetland and riparian impacts.

As indicated under the discussion and analysis of Threshold 4 in Subsection 4.3.3, the proposed Project would not significantly impact wildlife movement corridors because such corridors already are accommodated by the MSHCP and the Project site is not targeted for conservation as part of any proposed or existing linkages by the MSHCP. In addition, there are no native wildlife nursery sites within the Project vicinity. While Western Riverside County is becoming increasingly urbanized, which could restrict wildlife movement, the MSHCP, and the Conservation Areas established therein, was developed with several goals that specifically support wildlife movement. Accordingly, cumulative impacts to wildlife movement are less than significant. As concluded by the MSHCP's Final EIR/EIS, *"The MSHCP provides for the movement of native resident and migratory species and for genetic flow identified for Covered Species. Therefore, impacts related to cores and linkages resulting from the Plan are considered less than significant."* (MSHCP Final EIR/EIS, Section 4.1.5)

Accordingly, the proposed Project would not result in any cumulatively significant impacts to wildlife movement corridors or native wildlife nursery sites.

The proposed Project would not conflict with any local policies or ordinances protecting biological resources; accordingly, a cumulatively significant impact due to a conflict with such local policies or ordinances would not occur.

As discussed under the analysis of Threshold 6 in Subsection 4.3.3, the proposed Project would be fully consistent with the all applicable MSHCP requirements, including the MSHCP's Reserve Assembly requirements, MSHCP policies pertaining to narrow endemic plants, MSHCP requirements for the Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools, and requirements related to Urban/Wildland interface. As such, cumulative impacts due to a conflict with these the MSHCP would not occur.

4.3.5 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Compliance with these measures was assumed throughout the above analysis of impacts to biological resources.

PR 4.3-1 The Project shall comply with City of Moreno Valley Municipal Code Title 3, Chapter 3.48, *Western Riverside County Multiple Species Habitat Conservation Plan Fee Program*, which requires a per-acre local development mitigation fee that will assist in providing revenue to acquire and preserve vegetation communities and natural areas within the city and western Riverside County which are known to support threatened, endangered or key sensitive populations of plant and wildlife species.

PR 4.3-2 The Project shall comply with City of Moreno Valley Municipal Code Title 3, Chapter 8.60, *Threatened and Endangered Species*, which requires a per-acre local development mitigation fee pursuant to the City's adopted "The Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California" and as established pursuant to Fee Resolution 89-92.

4.3.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: Significant Direct and Cumulative Impact. The Project has the potential to directly and cumulatively impact burrowing owls that may be present on the site at the time development occurs. The Project also has the potential to directly and cumulatively impact nesting birds that may be present on the site if construction activities were to occur during the nesting season.

Threshold 2: Less than Significant Impact. The Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community. Although the proposed Project would impact 0.05-acre of MSHCP riverine area in the off-site Perris Valley Storm Drain Channel (as well as 0.05-acre of Corps and RWQCB jurisdictional area and 0.06-acre of CDFG jurisdictional area), this area is an unvegetated streambed. As such, there would be no loss of functions and values of riparian habitat or substantial effect on a sensitive natural community.

Threshold 3: No Impact. There are no federally protected wetlands on the Project site. A Section 404 Permit is required for the Project's off-site impact to 0.05-acre of Corps jurisdictional area, but this area is not a wetland.

Threshold 4: Less than Significant Impact. The Project would not substantially interfere with the movement of any resident or migratory fish or wildlife species, would not impact a wildlife corridor, nor impede the use of a nursery site.

Threshold 5: No Impact. The Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Threshold 6: Less than Significant Impact. The Project is subject to the Western Riverside County MSHCP and would not conflict with any applicable MSHCP provision.

4.3.7 MITIGATION

MM 4.3-1 Within 30 days prior to grading, a qualified biologist shall conduct a survey of the property and make a determination regarding the presence or absence of the burrowing owl. The determination shall be documented in a report and shall be submitted, reviewed, and accepted by the Planning Division of the Community & Economic Development Department prior to the issuance of a grading permit and subject to the following provisions:

a. In the event that the pre-construction survey identifies no burrowing owls on the property, a grading permit may be issued without restriction.

b. In the event that the pre-construction survey identifies the presence of three (3) or more mating pairs of burrowing owl, the grading permit shall not be issued and the requirements of MSCHP Species-Specific Conservation Objective 6 for the burrowing owl shall be followed. MSHCP Species-Specific Conservation Objective 6 for the burrowing owl prohibits the take of active nests and allows passive relocation to be conducted by a qualified biologist outside of the breeding season. Passive relocation shall include the required use of one-way doors to exclude owls from the site and the collapsing of burrows). Passive relocation shall follow CDFG relocation protocol and shall only occur between September 15 and February 1.

c. In the event that the pre-construction survey identifies the presence of at least one individual but less than three (3) mating pairs of burrowing owl, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities on the property, the qualified biologist shall passively relocate any burrowing owls, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows. Passive relocation shall follow CDFG relocation protocol and shall only occur between September 15 and February 1.

MM 4.3-2 Prior to the issuance of any grading permits, the Planning Division of the Community & Economic Development Department shall review grading plans to ensure that the following note is included on the plans:

> "No more than 30 days prior to commencement of ground-disturbing activities on site, a qualified biologist shall conduct pre-construction presence/absence surveys in accordance with the MSHCP Burrowing Owl Survey Instructions requirements and as required by MSHCP Objective 6 for the burrowing owl. If owls are determined to be present, grading shall not commence between February 1 and September 15. Between September 15 and February 1, grading may commence only after the qualified biologist has passively relocated the owls following CDFG protocol."

MM 4.3-3 As a condition of approval for all grading permits, vegetation clearing and ground disturbance shall be prohibited during the migratory bird nesting season (February 1 through September 15), unless a migratory bird nesting survey is completed in accordance with the following requirements:

a) A nesting bird survey shall be conducted by a qualified biologist within three (3) days prior to initiating vegetation clearing or ground disturbance.

b) A copy of the nesting bird survey results report shall be provided to the City of Moreno Valley. If the results of the nesting bird survey identify the presence of active nests on the property, then the qualified biologist shall provide the City of Moreno Valley Planning Division with a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impact. The size and location of all buffer zones, if required, shall be subject to review and approval by the Planning Division and shall be no less than a 300-foot radius around the nest for migratory birds and a 500-foot radius around the nest for raptors. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist and City Planning Division verify that the nests are no longer occupied and the juvenile birds can survive independently from the nests.

Impacts to CDFG, Corps, and RWQCB would not be significant due to standard regulatory requirements requiring the acquisition of a Section 1602 Streambed Alteration Agreement, Section 401 Permit, and Section 404 Permit. As part of these permits, the following mitigation measures will be required:

MM 4.3-4 Prior to the issuance of grading permits, and in accordance with the California Fish and Game (CDFG) Code, the Project shall obtain a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Game (CDFG) for impact to 0.06-acre of CDFG jurisdictional area in the Perris Valley Storm Drain Channel. As part of the Agreement, the Project Applicant may acquire credits for the impact at a minimum 1:1 ratio from an approved in-lieu fee program or mitigation land bank.

MM 4.3-5 Prior to the issuance of grading permits, and in accordance with the Clean Water Act, the Project shall obtain a Section 404 Permit from the U.S. Army Corps of Engineers (Corps) and a Section 401 Permit from the Regional Water Quality Control Board (RWQCB) for impact to 0.05-acre of Corps and RWQCB jurisdictional area in the Perris Valley Storm Drain Channel. As part of the Permits, the Project Applicant may acquire credits for the impact at a minimum 1:1 ratio from an approved in-lieu fee program or mitigation land bank.

4.3.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Threshold 1: Less than Significant Impact with Mitigation. Implementation of Mitigation Measure 0 would ensure that potential impacts to the burrowing owl are reduced to a level below significant. Implementation of Mitigation Measure MM 4.3-3 would ensure that any nesting birds that may be present on the site are avoided during the nesting season, and would therefore reduce the Project's direct and cumulative impacts to nesting birds to a level below significant.

4.4 CULTURAL RESOURCES

This Subsection 4.4 is based on a cultural resources investigation conducted by Jones & Stokes Associates. The cultural resources report, titled "Cultural Resources Survey Report for the March Business Center Project" (dated April 2008; revised March 2012), is included as *Technical Appendix D* to this EIR. Information used to support the analysis in this Subsection also was obtained from the Cultural Resources section (Section 5.10, pp. 5.10-1 – 16) of the certified Final Program EIR prepared for the City of Moreno Valley General Plan (SCH No. 2000091075), dated July 2006 (Moreno Valley 2006b), the property's Phase I Environmental Assessment report dated December 2006 (*Technical Appendix G1*), the Project's Geotechnical Investigation dated January 3, 2007 (*Technical Appendix E*), as well as correspondence received by the City of Moreno Valley as part of Native American consultation efforts conducted in compliance with California Government Code Section 65352.3.

4.4.1 EXISTING CONDITIONS

A. General Prehistory Description

The Project site is located in the southwestern portion of the City of Moreno Valley, California. Prehistory within the Project area is defined by six cultural periods: Early Man Period, Paleo-Indian Period, Pinto Period, Gypsum Period, Saratoga Springs Period, and Shoshonean Period. Each of these cultural periods is briefly described below and documented in *Technical Appendix D*.

- Early Man Period. The Early Man Period is generally characterized as a hunting tradition and is thought to date from approximately 12,000 years ago to as far back as 50,000 years ago. Various geologic and experimental dating methods have been used to provide these extreme temporal assignments, although most have failed to withstand scientific scrutiny and it appears likely that humans first arrived in southern California no earlier than 13,000 years ago.

- Paleo-Indian Period. The Paleo-Indian Period began approximately 12,000 years ago and persisted until approximately 7,000 years ago. Paleo-Indian Period artifacts are associated with the highly mobile hunter-gatherer society that dominated during this period.

- Pinto Period. The Pinto Period ranged from approximately 7,000 years ago to 4,000 years ago. This period is marked by a gradual transition from wet pluvial conditions to arid desert conditions during the terminal Pleistocene and Early Holocene. Pinto-series projectile points, crudely made with stemmed or basally notched dart points, are the most distinctive artifact type of the Pinto Period. Other artifacts found at Pinto Period sites include large leaf-shaped knives, thick split cobble choppers and scrapers, scraper-planes, and small milling slabs and manos. Most known Pinto Period sites consist of small surface deposits of lithic artifacts that are suggestive of temporary, and perhaps seasonal, occupation by small groups of people.

- Gypsum Period. The Gypsum Period ranged from approximately 4,000 years ago to approximately AD 500. This period coincides with a period of increased moisture in the region, which allowed for more extensive occupation of the desert regions. In addition, periods of drought within this era seem to have resulted in human adaptations to more

arid conditions, rather than a retreat from the deserts. Large occupation sites are usually located adjacent to permanent natural water sources, such as perennial springs or larger streams. Technologically, the artifact assemblage of this period is similar to that of the Pinto Period; new tools were added either as innovations or as borrowed cultural items. Late in the Gypsum Period, Rose Spring arrow points appear in the archaeological record, reflecting the spread of the bow and arrow technology from the Great Basin and the Colorado River region. Other artifact types characteristic of this period include leaf-shaped arrow points, rectangular-based knives, flake scrapers, T-shaped drills, milling slabs and manos, as well as core/cobble tool assemblages such as scraper planes, large choppers, and hammerstones. Shaft smoothers, incised slate and sandstone tablets and pendants, bone awls, *Olivella* shell beads, and *Haliotis* beads and ornaments are also found.

- Saratoga Springs Period. The Saratoga Springs Period spanned from approximately AD 500 to AD 1200. This period is, in large part, a continuation of the developments that began during the Gypsum Period, such as increasing adaptation to the arid environment in the deserts and an increase in trade relations. Regional environmental conditions became much wetter, a development known as the Little Pluvial. Variations in regional cultural adaptations during the Saratoga Springs Period also become apparent. Trade with the Pacific and Gulf Coastal populations appears to have been extensive, and was one driving force that led to the gradual expansion of Patayan cultural traits further west in to the mountains of the Peninsular Range as well as into the inland valleys and coastal regions of southern California. Lake Cuhuilla is believed to have refilled the Coachella Valley around AD 500, and was the focus of cultural activities such as exploitation of fish, waterfowl, and wetland resources during this period. Desert people, speaking Shoshonean languages, may have moved into southern California at this time.

- Shoshonean Period. The Shoshonean Period began in approximately AD 1200 and lasted into the 1800s. During this period there appears to have been a continuation of the technological developments from the earlier Saratoga Springs Period. However, regional developments indicate that the formation of distinct ethnographic groups become clearer. During this period, Lake Cahuilla began to dry, and the large Patayan populations occupying its shores began moving westward. Subsequently, Spanish exploration and establishment of the Mission system during the late 1700s mark the end of prehistoric lifeways.

B. General Ethnography Description

As reported in *Technical Appendix D* and confirmed in research conducted by Bean (Bean 1978 575-87), the Project site lies on the edge of the traditional cultural territory of the Cahuilla Indians (Jones & Stokes 2008 10). Correspondence received by the City of Moreno Valley from the Morongo Band of Mission Indians (Dancy 2011, Dancy 2012) also indicates that the site may be within Cahuilla/Serrano territory. The Cahuilla practiced a lifeway based on hunting, collecting, and harvesting. Trading of resources also was an important component of Cahuilla society. Acorns were a major food staple, but the roots, leaves, seeds, and fruit of many other plants also were used. To gather and prepare these food resources, the Cahuilla had an extensive inventory of equipment, including bows and arrows, traps, nets, disguises, blinds, throwing sticks, slings, spears, hooks, and

fish poisons. Shelters were often made of brush, fan palm fronds, or arrowweed. In prehistoric times they were dome-shaped, but later tended to be rectangular (Jones & Stokes 2008).

Luiseño tribes assert that the Project site is within traditional Luiseño territory (Duro 2011, Hoover 2011b 5-9, Hoover 2012 3-5), instead of Cahuilla territory. Luiseño history originates in the present-day City of Temecula, from which the Luiseño people spread out, establishing villages in the area (Hoover 2011b 3). Information provided by the Pechanga Tribe (Hoover, 2012 3-5) asserts that the Tribe's songs, stories, indigenous place names, and academic works substantiate that Luiseño tribes occupied Moreno Valley and the Pechanga Tribe has cultural affiliation to the Project site. Like other Native American groups in Southern California, the Luiseño caught and collected seasonally available food resources and led a semi-sedentary lifestyle. Luiseño subsistence was based primarily on seeds like acorns, grass seed, manzanita, sunflower, sage, chia, and pine nuts, as well as game animals such as deer, rabbit, jackrabbit, wood rat, mice, antelope, and many types of birds.

Considering the information contained in *Technical Appendix D* and correspondence received by the City of Moreno Valley from Native American tribes as part of the government-to-government consultation process required by SB18 (California Government Code §65352.1; "Traditional Tribal Places"), the City has identified a disagreement among experts regarding the Project site's traditional Native American tribal affiliation. Some experts and information sources indicate that the property is within traditional Cahuilla territory (Jones & Stokes 2007 10, Dancy 2011, Bean 1978 575-87, Dancy 2012), while other experts and information sources indicate that the property is within traditional Luiseño territory (Duro 2011, Hoover 2011b 5-9, Hoover 2012 3-5). A third expert asserts that the property was a shared use area that was used for ongoing trade between the Cahuilla and Luiseño (Ontiveros 2011a). This EIR acknowledges that Native American territorial boundaries were somewhat fluid and changed through time, which could be the cause of the disagreement among experts. Additionally, the City of Moreno Valley's General Plan EIR identifies the City as being occupied by both Luiseno and Cahuilla peoples (City of Moreno Valley, 2006b 5.10-6). As such, the analysis in this EIR treats the Project site as a traditional shared use area between the Cahuilla and Luiseño tribes.

C. *Description of the Native American Consultation Process*

In accordance with California Government Code Section 65352.3, local governments are required to conduct consultation with California Native American tribes that are on the contact list maintained by the Native American Heritage Commission (NAHC) before adopting or amending a city or county general plan. The proposed Project involves an amendment to the City's General Plan to change the alignment and classification of Krameria Avenue; accordingly, consultation was conducted pursuant to CEQA Guidelines §15083, "Early Public Consultation," which states that "the Lead Agency may also consult directly with any person or organization it believes will be concerned with the environmental effects of the project." Because there is a potential for subsurface archaeological resources to be discovered at the Project site, the City conducted early public consultation with local Native American tribes.

Jones & Stokes initiated consultation efforts in 2007 (as part of the "prior project" discussed in Subsection 1.3) by contacting the NAHC to obtain their sacred lands file (SLF) and a list of Native American representatives for the Project area. A response was received from the NAHC on October 19, 2007 stating that a search of the SLF database did not yield any sacred lands or traditional cultural properties within the Project area. Upon recommendation from the NAHC, 11 Native

American tribes were contacted on October 23, 2007. On November 1, 2007, Darrell Hill of the Soboba Band of Luiseño Indians responded requesting that the Soboba Band of Luiseño Indians receive copies of all archaeological and/or cultural resources documents, and further requested that the City consult with Native American tribes. On November 29, 2007, John Gomez of the Ramona Band of Cahuilla replied and stated that the Project area is within the traditional territory of the Cahuilla People, and expressed concern over the protection, proper, and lawful treatment of unique and irreplaceable cultural resources that may be exposed during construction activities. Mr. Gomez also requested copies of the cultural resources reports prepared for the site (Jones & Stokes 13). No response was received from the Pechanga Tribe or other tribes.

In March 2011, consultation efforts were re-initiated by the City of Moreno Valley for the proposed Project. On February 1, 2011, the Morongo Band of Mission Indians responded, stating that the Project site may be located within the Cahuilla/Serrano traditional use area and requested that the Morongo Band be contacted if any human remains or Native American cultural resources are discovered during Project construction and development (Dancy 2011). The Soboba Band of Luiseño Indians responded on February 28, 2011, indicating that the Project site was used as a shared use area in ongoing trade between the Luiseño and Cahuilla tribes. The Soboba Band requested to be a lead consulting tribal entity for the Project and to be engaged in monitoring of ground-disturbing construction activities (Ontiveros 2011a). The Soboba Band sent an identical correspondence in response to this EIR's Notice of Preparation (NOP) (Ontiveros 2011b). Additionally in response to the NOP, a letter was received from the NAHC confirming that no Native American cultural resources were identified in the SLF search and identifying the same 11 Native American tribes for consultation that were contacted in 2007. Correspondence in response to the NOP also was received from the Rincon Band of Luiseño Indians (Duro 2011) requesting that Native American monitors be present during ground disturbing construction activities and from the Pechanga Band of Luiseño Mission Indians (Hoover 2011b), asserting that the Project site is within Luiseño territory and requesting consultation and notification of hearings.

Two government to government consultation meetings occurred between representatives of the City of Moreno Valley Planning Division and representatives of the Pechanga Tribe. Meetings occurred on November 9, 2011 and October 9, 2012.

D. General History Description

As documented in *Technical Appendix D*, European settlement of California began with the founding of Mission San Diego de Alcala in 1769. The first known European exploration in Riverside County was in 1772 by a party led by Captain Pedro Fages. In 1776, Juan Bautista de Anza crossed the area en-route to Mission San Gabriel. The founding of Mission San Gabriel in 1771 (Los Angeles County), San Juan Capistrano in 1776 (Orange County), and San Luis Rey in 1798 (San Diego County) had a profound effect on the Native American populations located in and around the Project area. The mission fathers of Mission San Gabriel and Mission San Luis Rey gradually began colonizing the interior valleys in what is now western Riverside County. During this period, Native American populations became increasingly sedentary, learned use of the Spanish language, and converted to Christianity. They provided the labor force for the missions and their ranchos. Some Cahuillas worked seasonally for the Spaniards and lived for the remainder of the year in their villages.

Mexico, including California, won independence from Spain in 1821. A decree of secularization followed in 1834, and the once thriving missions began to be abandoned. After secularization, large land grants were made to individuals in the area that is now western Riverside County.

The acquisition of California by the United States at the end of the Mexican-American War in 1848 and the discovery of gold in 1850 brought many Euro-Americans into California and promoted further cultural changes. The process of surveying and mapping the area began in 1852, when Henry Washington and a small party of surveyors ascended the San Bernardino Mountains and established the San Bernardino Base and Meridian.

In 1859, the first U.S. Post Office in what would become Riverside County was established at John Magee's store on Temecula Rancho. With the completion of the transcontinental railroad in 1869, land speculators, developers, and colonists began arriving into Southern California. Orange trees were first planted in Riverside County in 1871. The trees thrived in the Southern California climate and the navel orange industry grew rapidly, supported by extensive irrigation projects. By 1882, there were more than half a million citrus trees in California, almost half of which were in Riverside County. On May 9, 1893, Riverside County officially formed from portions of San Bernardino County and San Diego County.

Moreno Valley saw population growth in the years following the construction of the Bear Valley Dam in 1883. Frank E. Moreno, for whom the city is named, constructed the dam to provide a reliable water source to citrus farmers. In 1891, litigation regarding ownership of the dam caused a water shortage that forced agriculturalists out of Moreno Valley. Population was sparse until 1918 when the United States constructed March Field for pilot training. March Air Reserve Base is located directly west of the Project site. Between 1918 and 1922, the base was used primarily to train fighter pilots of the Army Air Corps. This base was closed in 1922. It reopened in 1927 to become a fully-operational Army Air Force Base, and later a major B-52 bomber base after formation of the U.S Air Force in 1947. The base brought jobs and people into Moreno Valley and was the primary impetus for growth in the communities of Moreno, Sunnymead, and Edgemont. In 1984, the three communities were incorporated as the City of Moreno Valley. March Air Force Base was downgraded to an Air Reserve Base in 1993 as a result of recommendations from the 1993 Defense Base Realignment and Closure Commission (March JPA 2010 2-1).

E. Historical Resources

As documented in *Technical Appendix D,* historic period maps depict two structures on Project site by 1942, 10 structures by 1980 including a running track for horses, and the Perris Valley Storm Drain Channel by 1980. The 10 structures and the running track were subsequently demolished and removed, and the area plowed for agricultural use. The Perris Valley Storm Drain Channel remains in place. The Channel, built between 1945 and 1967—likely in the 1950s when this type of reclamation work was common—is a typical earth and concrete lined drainage channel. It possesses no distinctive features and is not identified as being eligible for the California Register of Historic Resources.

F. Archaeological Resources

Jones & Stokes Associates conducted an intensive pedestrian survey of the Project site on October 24 and 25, 2007 (Jones & Stokes 2008 *ii*, 14). A literature and records search also was conducted at the Eastern Information Center, University of California, Riverside. The record search included a review

of all available cultural resource survey and excavation reports and site records for an area within a one-mile radius of the Project area. The results of this literature and records search indicate that one archaeological study was previously conducted within the Project area. In addition, five surveys were conducted within a half-mile radius of the Project area. No cultural resources were identified within the Project area; however, one isolated prehistoric stone artifact was identified within a half-mile radius of the site. This artifact was recorded as a pestle, artifact No. 33-15301, and was identified approximately 0.5-mile northeast of the Project site (Jones & Stokes 2008 13).

No archaeological resources were identified during the surface survey conducted by Jones & Stokes in October 2007. One Jones & Stokes archaeologist walked the entire surface area along 15-meter transects, and ground visibility was high due to the routine disking of the site. During the field survey, the race track and a structure once located on the northeastern corner of the property were noted as having been removed from the site. The only traces left of the structure noted during the field surveys were a utility pole, small chunks of wood, and one modern porcelain toilet (Jones & Stokes 2008 14).

G. Paleontological Resources

According to the City of Moreno Valley General Plan Final EIR, the City of Moreno Valley contains sedimentary rock units with potential to contain significant nonrenewable paleontological (fossil) resources. These sedimentary units are referred to as the Mt. Eden Formation and the San Timoteo Formation (City of Moreno Valley 2006b 5.10-10).

The Mt. Eden Formation is described as being primarily reddish sandstone and dark green and brown clay with local reddish fanglomerate and conglomerate. The age of the fossils contained in the Formation and the dark reddish brown coloration distinguish the Mt. Eden formation from the younger, green to gray, tan and red weathering of the San Temoteo Formation. Fossilized fauna include cricetine rodent, horse and proboscidean (extinct animals related to elephants) (City of Moreno Valley 2006b 5.10-10).

The San Timoteo Formation is a widespread deposit of sands, gravels, and clays that extends northward from the foothills of the San Jacinto Mountains for a distance of nearly 20 miles. The San Timoteo Formation contains fossils of land animals and plant species, and represents sediments deposited from about 3.5 to 0.7 million years ago during Late Pliocene to middle Pleistocene time. The presence of non-marine fossils within a sequence of rocks spanning such a long time has lead to several studies of the depositional environments and paleontology of the formation (California Department of Conservation 2002a).

According to Figure 5.10-3 of the Moreno Valley General Plan Final EIR (City of Moreno Valley 2006b 5.10-11), the Project area is characterized as having a “Low” potential for containing paleontological resource deposits. This is because the Project site, as with most of the City of Moreno Valley, is covered with recent alluvium. These sediments overlie fossiliferous sedimentary units of the Mt. Eden Formation and the San Timoteo Formation. Excavation to depths normal for development generally would not penetrate recent alluvial sediments to encounter fossiliferous deposits. Areas within the City that are thought to have the greatest potential for encountering paleontological resources occur in the hills in the east end of the City, in an area known as the Badlands. The proposed Project site is not located in close proximity to this portion of the City.

4.4.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to cultural resources if the Project or any Project-related component would:

1. *Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, Section 15064.5;*

2. *Cause a substantial adverse change in the significance of an archaeological resource as defined in California Code of Regulations, Section 15064.5;*

3. *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or*

4. *Disturb any human remains, including those interred outside of formal cemeteries.*

4.4.3 IMPACT ANALYSIS

Threshold 1: Would the Project cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, Section 15064.5?

No historic sites or historic resources are present on the Project site (Jones & Stokes 2008 13). Although the Project site formerly contained a horse running track and several structures, all buildings previously present on site have since been removed. Accordingly, there are no resources on the property that qualify as historic resources pursuant to California Code of Regulations, Section 15064.5.

Additionally, Figure 5.10-1 of the City's General Plan Final EIR, *Locations of Listed Historic Resource Inventory Structures*, depicts the location of known historic properties within the City. According to this exhibit, the nearest historic property to the proposed Project is located at 21874 Bay Avenue, or approximately 3.1 miles northwest of the Project site (City of Moreno Valley 2006b 5.10-3).

Therefore, because no historic sites or resources are present on the Project site, construction and operation of the Project would not cause a substantial adverse change in the significance of a historic resource. The Project would have no impact on historic resources.

Threshold 2: Would the Project cause a substantial adverse change in the significance of an archaeological resource as defined in California Code of Regulations, Section 15064.5?

Based on the results of a field surveys and record searches conducted for the Project area by Jones & Stokes, the Project site does not contain any known archaeological resources (Jones & Stokes 13-16). Jones and Stokes conducted an intensive pedestrian survey of the Project site over two days in October 2007. As part of the pedestrian survey, one Jones & Stokes archaeologist assessed the site for archaeological resources by walking the entirety of the subject property along 15 meter transects. No archaeological resources were discovered on the Project site. Furthermore, a comprehensive records search conducted by Jones & Stokes concluded that the Project site does not contain any

known, previously recorded archaeological resources (Jones & Stokes 2008 13-16). Accordingly, implementation of the proposed Project would not result in a substantial adverse change in the significance of any known archaeological resources, as defined in California Code of Regulations Section 15064.5.

An evaluation of Project's potential to impact previously undiscovered resources that may be present beneath the surface of the property was also considered. As previously summarized in Section 2.0, Environmental Setting, and discussed in detail in Subsection 4.5, Geology and Soils, the subject property contains damp, loose, disturbed top soils to depths of 12 to 16 inches (NorCal 2006 3). The disturbance of the topsoil on the subject property has been continual since the early 1900s. Based on a review of historical aerial photograph data, the southern portion of the property was used as pasture lands and the northern portion of the property was used as dwellings and possibly agriculture as early as 1938 (SCS Engineers 2006 7-9). Between 1953 and 1967, the northern half of the property was developed with up to 10 structures, including stables and a training center for race horses, complete with a racetrack. By the end of the 1980s, most of the corrals, barns and other buildings had been removed. Since removal of the structures, the entire property has been routinely disked, to depths of about 18 inches. No archaeological resources have been previously identified in the top 18 inches of disturbed soil and the potential to discover unknown resources in those 18 inches is very low.

According to the Moreno Valley General Plan EIR, the subject property is not a part of any known village complex and "the vast majority of archaeological locations in the City are milling stations where bedrock metates (more or less flat grinding surfaces), commonly referred to as 'slicks,' and bedrock mortars are found. Naturally, these locations are generally situated around valley edges where suitable rock outcrops occur" (Moreno Valley 2006b 5.10-6). The Project site is not located on a valley edge and does not contain any rock outcrops. Additionally, a comprehensive records search conducted by Jones & Stokes concluded that only one (1) isolated prehistoric stone artifact (a pestle) was identified within a half-mile radius of the Project site (Artifact No. 33-15301, approximately 0.5-mile northeast of the Project site) (Jones & Stokes 2008 13). This information indicates that the potential for resources to be located beneath the site's surface is low. Correspondence received by the City of Moreno Valley as part of the government-to-government consultation process required by SB18 (California Government Code Section 65352.1; "Traditional Tribal Places"), however, opines that there is not enough information to accurately identify the potential for subsurface resources (Hoover 2011b 9).

The maximum depth of proposed grading shown on the Project's grading plans is 42 inches (3.5 feet), except in proposed detention basin areas that would require limited, deeper excavations to approximately 10 feet in depth. Therefore, the potential for discovery of previously unknown archaeological resources, if present, would be limited to detention basin areas and a 24-inch zone between the 18 inches of top soils that have previously been disturbed and the 42-inch maximum depth of grading.

There is a low likelihood of uncovering subsurface archaeological resources on the subject property during Project-related grading and/or ground disturbing construction activities given: 1) there is no evidence that the property was part of an archaeological village complex; 2) the property does not have the same characteristics of other locations in the City of Moreno Valley where milling slicks, bedrock mortars, and other significant archaeological resources have been discovered; 3) no archaeological resources were discovered on the site during an intensive pedestrian survey; 4) there has been prior and continued disturbance of near-surface soils on the subject property; and 5) the

potential zone of discovery is limited to a 24-inch zone and detention basin areas. As such, impacts are less than significant because the Project would not cause a substantial adverse change in the significance of an archaeological resource; no known resources exist at the site and potential for discovery of a resource that meets the definition of a significant resource given in California Code of Regulations Section 15064.5 is low.

Threshold 3: Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

No unique geologic features are present on the Project site (NorCal 2006). According to the City of Moreno Valley General Plan Final EIR, the Project site is considered to have a low potential for containing paleontological resources (City of Moreno Valley 2006b 5.10-11). The Project area primarily consists of recent alluvial sediments, which do not often reveal paleontological sites and resources because they are generally too young to contain fossils

As previously summarized in Section 2.0, Environmental Setting, and discussed in detail in Subsection 4.5, Geology and Soils, the subject property contains damp, loose, disturbed top soils to depths of 12 to 16 inches (NorCal 2006 3). The entire property has been routinely disked, to depths of about 18 inches. No paleontological resources have been previously identified on the property. The maximum depth of proposed grading shown on the Project's grading plans is 42 inches (3.5 feet), except in the areas of proposed detention basins that would require limited, deeper excavations to approximately 10 feet in depth. Fossiliferous deposits underlying the alluvial sediments and 18 inches of previously disturbed surface soils on the Project site are not likely to be encountered during grading of the proposed Project site because grading would not extend to the depth of those deposits. As such, impacts are less than significant because the Project would not directly or indirectly destroy a unique paleontological resource or site or geologic feature; no known resources exist at the site and potential for discovery unique resources, sites, and features is low.

Threshold 4: Would the Project disturb any human remains, including those interred outside of formal cemeteries?

The Project site does not contain a cemetery and no known formal cemeteries are located within the immediate site vicinity. Field surveys conducted on the Project site did not identify the presence of any human remains and no human remains are known to exist beneath the surface of the site (Jones & Stokes 2008 13).

As previously disclosed, the entire property has been routinely disked, to depths of about 18 inches. The maximum depth of proposed grading shown on the Project's grading plans is 42 inches (3.5 feet), except in the areas of proposed detention basins that would require limited, deeper excavations. Although there is not a probable likelihood for human remains to be present in the Project's subsurface disturbance areas, it is acknowledged that human remains have the potential to be discovered during any ground disturbing activities.

The California Native American Graves Protection and Repatriation Act of 2001 (California Health and Safety Code Sections 8010-8011) strives to ensure that all California Indian human remains and cultural items are treated with dignity and respect. If human remains are unearthed during Project

construction, the construction contractor would be required by law to comply with California Health and Safety Code, Section 7050.5 "Disturbance of Human Remains." According to Section 7050.5(b) and (c), if human remains are discovered, the County Coroner must be contacted and if the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, the Coroner is required to contact, by telephone within 24 hours, the Native American Heritage Commission (NAHC). Pursuant to California Public Resources Code Section 5097.98, whenever the NAHC receives notification of a discovery of Native American human remains from a county coroner, the NAHC is required to immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American human remains and may recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. According to Public Resources Code Section 5097.94(k), the NAHC is authorized to mediate disputes arising between landowners and known descendents relating to the treatment and disposition of Native American human burials, skeletal remains, and items associated with Native American burials.

In addition, Conditions of Approval will be imposed on the proposed Project and will require the following: "If human remains are discovered, work in the affected area shall cease immediately and the County Coroner shall be notified. If it is determined that the remains are potentially Native American, the California Native American Heritage Commission and any and all affected Native American Indians tribes shall be notified and appropriate measures provided by State law shall be implemented (GP Objective 23.3, DG, CEQA)."

With mandatory compliance to California Health and Safety Code Section 7050.5, Public Resources Code 5097.98, and the Project's Conditions of Approval, any potential impacts to human remains of Native American descent would be less than significant and mitigation is not required.

4.4.4 CUMULATIVE IMPACT ANALYSIS

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects in the vicinity of the Project site resulting from full General Plan buildout in the City of Moreno Valley and other jurisdictions in the region identified in Subsection 4.0.2.

Record searches and field surveys of the Project area indicate the absence of significant historical sites and resources; therefore, the Project has no potential to contribute towards a significant cumulative impact to historical sites and resources.

Regarding archaeological resources, the cumulative study area includes the Native American traditional use areas of the Luiseno and Cahuilla tribes. As discussed above under the analysis of Threshold 2, a record search and field survey conducted for the Project site indicate that no unique or important archaeological resources are known to exist on the Project site. Additionally, there is a low potential for archaeological resources to be unearthed during Project-related construction activities. The Project, therefore, would not contribute to a significant cumulative archaeological impact.

Similarly, and as indicated above under the discussion of Threshold 3, there are no known paleontological resources on the Project site and the likelihood of their discovery is low. Thus, the Project would not contribute to a significant cumulative paleontological impact to fossiliferous deposits in the Mt. Eden and Temoteo Formations geologic formations.

Human burials are subject to specific regulatory protection, and their treatment is governed by provisions of the Public Resources Code and the Heath and Safety Code, applicable across the State of California. These requirements are imposed on individual development projects within the City of Moreno Valley through a standard condition of project approval. Consequently, all projects that encounter burials would be required to provide appropriate treatment. Because appropriate treatment of human remains is required by law and the City's standard conditions of approval, there would not be a cumulative impact associated with the disturbance of Native American burials.

4.4.5 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Compliance with these measures was assumed throughout the above analysis of cultural resources.

PR 4.4-1 The Project is required to comply with California Public Resources Code Section 5097.98, "Native American Historical, Cultural, and Sacred Sites."

PR 4.4-2 The Project is required to comply with California Health and Safety Code, Section 7050.5. "Disturbance of Human Remains."

4.4.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: No Impact. The Project would not impact a historic resource. No historic sites are present on the Project site; therefore, no historic sites could be altered or destroyed by construction or operation of the proposed Project.

Threshold 2: Less than Significant Impact. The Project would not impact any known or recorded archaeological resources. There is a low likelihood for unearthing archaeological resources that meet the definition of a significant resource given in California Code of Regulations during Project construction.

Threshold 3: Less than Significant Impact. The Project would not impact any known paleontological resource. There is a low likelihood for unearthing unique paleontological resources, sites, and geologic features during Project construction.

Threshold 4: Less than Significant Impact. No human remains have been discovered at the Project site and no human remains are known to be buried beneath the surface of the site. If human remains are uncovered during ground disturbing construction activities and are determined to be of Native American decent, compliance with California Public Resources Code Section 5097.98, Health and Safety Code Sections 8010-801, and a condition imposed by the City of Moreno Valley to require compliance to those provisions would reduce the potential impact to below a level of significance.

4.4.7 MITIGATION

Although cultural resources impacts would be less than significant, the following mitigation measures are recommended to ensure the proper treatment of unknown resources in the event that resources are unearthed during the Project's construction process.

MM 4.4-1 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that qualified professional archaeological monitor has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities and has the authority to halt and redirect earthmoving activities in the event that suspected archeological resources are unearthed during Project construction.

MM 4.4-2 Prior to the issuance of a grading permit, the Applicant shall provide evidence to the City of Moreno Valley that appropriate Native American representative(s) shall be allowed to monitor and have received a minimum of 30 days advance notice of all mass grading and trenching activities. Prior to grading permit issuance, appropriate local Native American representative(s) shall be notified in writing by the Applicant of the pending grading activities. During grading and trenching operations, a professional archaeological monitor shall observe all mass grading and trenching activities. If the monitor suspects that an archaeological resource may have been unearthed, the monitor shall immediately halt and redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. If the monitor determines that the suspected resource is potentially significant, the archaeologist shall notify the appropriate Native American Tribe(s) and invite a tribal representative to consult on the resource evaluation. In consultation with the appropriate Native American Tribe(s), the archaeological monitor shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. If the resource is significant, Mitigation Measure MM 4.4-3 shall apply.

MM 4.4-3 If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be suspended 100 feet around the resource(s). The archaeological monitor and a representative of the appropriate Native American Tribe(s), the Project Applicant, and the City Planning Division shall confer regarding mitigation of the discovered resource(s). A treatment plan shall be prepared and implemented by the archaeologist to protect the identified archaeological resource(s) from damage and destruction. The landowner shall relinquish ownership of all archaeological artifacts that are of Native American origin found on the Project site to the culturally affiliated Native American tribe for proper treatment and disposition. A final report containing the significance and treatment findings shall be prepared by the archaeologist and submitted to the City Planning Division, the appropriate Native American tribe(s), and the Eastern Information Center.

MM 4.4-4 Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan:

"If any suspected archaeological resources are discovered during ground-disturbing activities, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call a qualified archaeologist to the site to assess the significance of the find."

MM 4.4-5 Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan:

"If any suspected paleontological resources are discovered during ground-disturbing activities, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call a qualified paleontologist to the site to assess the significance of the find.

A qualified paleontologist shall evaluate the suspected resource. If the paleontologist determines that the find is not unique, construction shall be permitted to proceed. However, if the paleontologist determines that further information is needed to evaluate significance, the City of Moreno Valley shall be notified and a treatment plan shall be prepared and implemented in consultation with the City to protect the identified paleontological resource(s) from damage and destruction."

MM 4.4-6 If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made by the Coroner. If the Riverside County Coroner determines the remains to be Native American, the California Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then immediately notify the "most likely descendant(s)" of receiving notification of the discovery. The most likely descendant(s) shall then make recommendations within 48 hours, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code Section 5097.98.

4.5 GEOLOGY AND SOILS

This subsection assesses the existing surface and subsurface geologic conditions and features of the Project site and determines the potential for impacts associated with these features. The analysis is based in part on information contained in the report titled "Geotechnical Investigation Proposed Heacock Business Center Development, Southeast Corner of Iris Avenue and Heacock Street, Moreno Valley, California," prepared by NorCal Engineering and dated January 3, 2007. The geotechnical investigation is provided as *Technical Appendix E* to this EIR. In addition, information used to support the analysis in this subsection was obtained from the Geology and Soils section (Section 5.6, pp. 5.6-1 – 5.6-12) of the certified Final Program EIR prepared for the City of Moreno Valley General Plan (SCH No. 2000091075), dated July 2006 (Moreno Valley 2006b).

4.5.1 EXISTING CONDITIONS

A. Regional Geology

The Project site is located within the Peninsular Range Geomorphic Province, a prominent natural geomorphic province that extends from the Santa Monica Mountains approximately 900 miles south to the tip of Baja California, Mexico, and is bounded on the east by the Colorado Desert. The Peninsular Range is characterized by steep, elongated ranges and valleys that generally trend northwesterly (California Department of Conservation 2002b). More specifically, the Project site is situated within the Perris Block unit, which is an eroded mass of Cretaceous and older crystalline and metamorphic rock. Thin sedimentary, metamorphic, and volcanic units locally mantle the bedrock with alluvial deposits filling in the lower valley and drainage areas. The Perris Block is bounded by the San Jacinto fault zone to the northeast, the Elsinore fault zone to the southwest, the east-west compressional faults of the Transverse Ranges Physiographic Province to the north, and to the southeast by the poorly defined northern edge of the Temecula Basin (City of Moreno Valley 2006b 5.6-1).

B. Site Geologic Units

Based on a field exploration and observations conducted by NorCal Engineering and a review of pertinent literature, the subsurface materials within the Project site are comprised of alluvial deposits that overlie granitic bedrock (NorCal 2007 3). Each of these units is discussed below.

❑ Fill/Topsoil

Disturbed top soils generally classified as silty sands to sandy silts with intermixed organics (*i.e.*, roots of surface vegetation) were encountered across the majority of the site to depths of 12 to 16 inches. These soils were generally noted to be dry to damp and loose (NorCal 2007 3).

Subsurface borings discovered a high concentration of asphaltic concrete, concrete, rock, and other debris near the ground surface in an approximately 350 foot by 200 foot area in the northern portion of the Project site. Native soils were encountered beneath the fill materials. It is assumed that the encountered fill materials may have served as a foundation for the structures that were previously located on the Project site (NorCal 2007 3).

❑ Alluvium

Native, undisturbed alluvial soils generally classified as silty and clayey sands to sandy silts were encountered beneath the upper disturbed and fill soils. The native soils were observed to be medium

dense/stiff and damp to moist. Alluvial soils on-site vary in thickness from approximately five (5) to 17 feet (NorCal 2007 3).

- **Granitic Bedrock**

Subsurface borings conducted by NorCal Engineering during the property's field investigation were terminated in depth before encountering bedrock; however, due to the regional geologic characteristics of the area it is assumed that the site is underlain by granitic bedrock (NorCal 2007 3). Furthermore, Moreno Valley General Plan FEIR Figure 5.6-1, *Geology*, indicates that the Project site is underlain by granitic bedrock (City of Moreno Valley 2006b 5.6-2).

C. Site Topography

The Project site is generally flat and ranges in elevation from a high point of approximately 1,502 feet above mean sea level (AMSL) in the northwest corner of the site to a low point of approximately 1,488 feet AMSL in the southeast corner of the site, with an overall topographic relief of approximately 14 feet. There are no unique topographic features or steep natural or manufactured slopes present on the property. Figure 2-5, *Topographic Map*, illustrates the Project site's existing topographic conditions.

D. Surface Water and Groundwater

No seepage or standing water was observed on the ground surface during site investigations, and no groundwater was encountered during subsurface soil borings. Based on a review of groundwater data by NorCal Engineering, it was estimated that regional groundwater occurs at depths of 50 feet below existing ground surface (NorCal 2007 3).

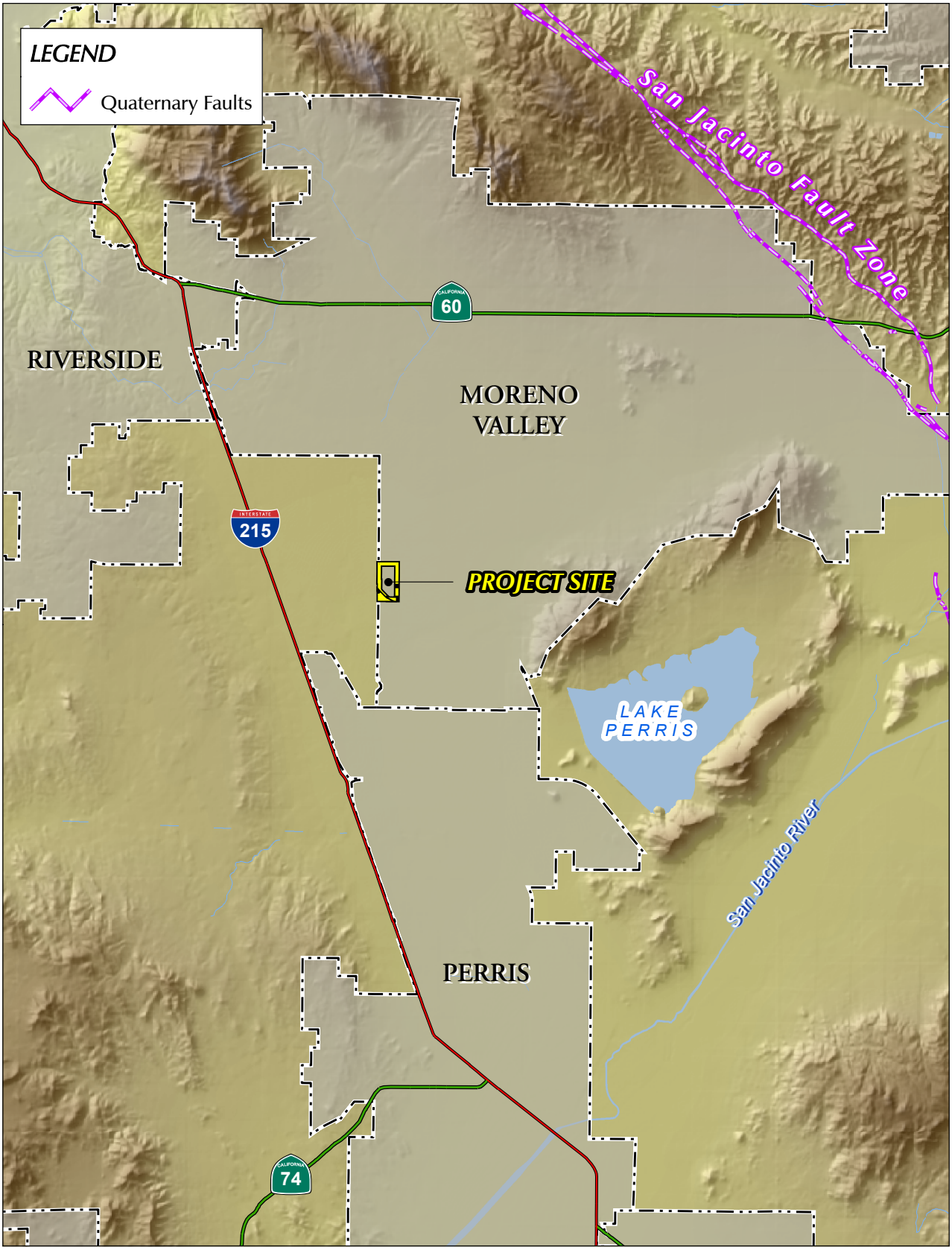
E. Faulting and Seismicity

The geologic structure of the Southern California area is dominated by northwest-trending faults associated with the San Andreas Fault system. The San Andreas Fault system includes several major branches, including San Jacinto and Elsinore faults, as well as numerous minor branches. The San Andreas Fault, Elsinore, and San Jacinto faults are known to have ruptured the ground surface during historic seismic events.

Figure 4.5-1, *Earthquake Fault Zones*, depicts the known, active earthquake faults within the vicinity of the Project site. An active fault is defined by the California Geological Survey as one which has experienced surface displacement within the Holocene Epoch (roughly the last 11,000 years). As depicted on Figure 4.5-1, the nearest known active fault is the San Jacinto Valley section of the San Jacinto Fault zone (Casa Loma Fault), which is located approximately eight (8) miles east of the Project site (California Department of Conservation 2010). There are no active or potentially active faults occurring on the Project site and the site does not lie within an identified Alquist-Priolo Earthquake Fault Zone or within a City-designated fault zone (City of Moreno Valley 2006b 5.6-4, NorCal 2007 5).

F. Seismic Hazards

Secondary hazards associated with ground shaking associated with earthquakes include surface rupture, ground failure, unstable soils and slopes (liquefaction). Each of these hazards is briefly described on the following pages.



Source: RCTLMA (2011), USGS

Figure 4.5-1
Earthquake Fault Zones

❑ Surface Rupture

Surface rupture can occur along pre-existing, known active fault traces; however, surface rupture also can splay or 'step from' known active faults or rupture along unidentified fault traces. No faulting was observed by NorCal Engineering during their field investigations of the Project site (NorCal 2007 5). As shown on Figure 4.5-1, no known faults are mapped trending through or toward the site. Therefore, there is no potential for surface rupture on the Project site.

❑ Liquefaction

Liquefaction is a phenomenon in which loose, saturated, relatively cohesion-less soil deposits lose shear strength during strong ground motions, which causes the soil to behave as a viscous liquid. Liquefaction is generally limited to the upper 50 feet of subsurface soils. Research and historical data indicate that loose granular soils below a near-surface groundwater table are most susceptible to liquefaction, while the stability of most clayey material is not adversely affected by vibratory motion. Therefore, in order for the potential effects of liquefaction to be manifested at the ground surface, soils generally must be granular, loose to medium dense, relatively saturated near the ground surface and subjected to a sufficient magnitude and duration of ground shaking. According to Moreno Valley General Plan FEIR Figure 5.6-2, *Seismic Hazards*, the Project site is not located within a potential liquefaction zone (City of Moreno Valley 2006b 5.6-5). In addition, based on NorCal Engineering's review of relevant literature, as well as a review of the subsurface exploration data and the estimated depth of groundwater at the Project site (>50 feet), the liquefaction potential at the Project site is determined to be low (NorCal 2007 6).

❑ Unstable Soils and Slopes

The Project site is generally flat and does not contain any steep natural or manufactured slopes. As such, the site is not susceptible to seismically induced landslides and rockfalls.

G. Slope and Soil Instability Hazards

❑ Soil Erosion

Erosion is the process by which the upper layers of the surface (such as soils) are worn and removed by the movement of water or wind. Soils with characteristics such as low permeability and/or low cohesive strength are more susceptible to erosion than those soils having higher permeability and cohesive strength. Additionally, the slope gradient on which a given soil is located also contributes to the soil's resistance to erosive forces. Because water is able to flow faster down steeper gradients, the steeper the slope on which a given soil is located, the more readily it will erode. The soils series on the Project site range from fair to good and poor to fair stability, which corresponds to a minimal to significant potential to water erosion (City of Moreno Valley 2006b 5.6-3).

Wind erosion can damage land and natural vegetation by removing soil from one place and depositing it in another. It mostly affects dry, sandy soils in flat, bare areas, but wind erosion may occur wherever soil is loose, dry, and finely granulated. Under the existing conditions, the Project site has potential to contribute windblown soil and sand because the site does not contain vegetative cover; the site is routinely disked and contains areas of loose and dry topsoil conditions (GLA 2011).

❑ Subsidence Potential

Subsidence is a gradual settling or sudden sinking of the ground surface. The principal causes of subsidence are aquifer-system compaction, drainage of organic soils, underground mining, and natural compaction. Laboratory testing of soil samples taken from the site by NorCal Engineering indicated that the site's near-surface fill soils are subject to consolidation when exposed to load (weight) increases. Therefore, the subject property has potential for shrinkage and subsidence (NorCal 2007 9).

❑ Expansive Soil Potential

Expansive soils are soils that exhibit cyclic shrink and swell patterns in response to variations in moisture content. Based on expansion index testing of soil samples taken from the Project site, it was determined that the site's soils have a very low expansion potential (NorCal 2007 15).

❑ Landslide Potential

The Project site and immediately surrounding properties are flat to gently sloping and contain no steep natural or manufactured slopes; thus, there is no potential for landslides to occur on or immediately adjacent to the site.

4.5.2 APPLICABLE ENVIRONMENTAL REGULATIONS

A. Alquist-Priolo Earthquake Fault Zoning Act (CA Pub. Res. Code §2621 et Seq.)

The Alquist-Priolo Special Studies Zone Act was signed into law in 1972 and renamed the Alquist-Priolo Earthquake Fault Zoning Act in 1994. The primary purpose of the Alquist-Priolo Act is to mitigate the hazard of fault rupture by prohibiting the location of structures for human occupancy across the trace of an active fault.

B. Seismic Hazards Mapping Act (CA Pub. Res. Code §2690 et Seq.)

The Seismic Hazards Mapping Act of 1990 is a statewide seismic hazard mapping and technical advisory program in California to assist cities and counties in fulfilling their responsibilities for protecting the public health and safety from the effects of strong ground shaking, liquefaction, landslides, or other ground failure and other seismic hazards caused by earthquakes. The California Geologic Survey (CGS) is the principal Sate implementing agency which has mapped out seismic zones requiring the completion of site-specific geotechnical investigations prior to construction of a project.

C. California Building Standards Code, Title 24

The California Building Standards Code (CCR, Title 24), also known as the CBSC or the "California Green Building Standards Code (CalGreen) that went into effect on January 1, 2011 is the standard from which California buildings derive appropriate building design standards. The International Building Code (IBC) used by the International Conference of Building Officials establishes design and construction standards for buildings and facilities. The CBSC incorporates the IBC as well as other uniform codes into its code standards.

D. South Coast Air Quality Management District, Rule 403

The South Coast Air Quality Management District (SCAQMD) is responsible for enforcing air pollution control measures in the South Coast Air Basin, within which the Project site is located. Rule 403 addresses blowing dust from construction sites and is applicable to the Project due to its potential to result in wind erosion during grading and construction activities.

E. Federal Water Pollution Control Act (Clean Water Act)

The Federal Water Pollution Control Act (also known as the Clean Water Act (CWA)) is the principal federal statute that addresses water resources. The provision of the CWA applicable to geology and soils is CWA Section 402, which applies to all construction sites of over one acre in size and, in part, serves to control the potential impacts of erosion. CWA Section 402 authorizes the National Pollutant Discharge Elimination System (NPDES) permit program that covers point sources of pollution discharging to a water body. The NPDES program requires operators of construction sites one acre or larger to prepare a Stormwater Pollution Prevention Plan (SWPPP) and obtain authorization to discharge stormwater under an NPDES construction stormwater permit.

F. Applicable Local Ordinances

- **Moreno Valley Ordinance No. 359**

In cases where a proposed project falls within an earthquake fault zone as shown on the maps prepared by the State Geologist, this ordinance requires compliance with all of the provisions of the Alquist-Priolo Act and the adopted policies and criteria of this ordinance.

- **Moreno Valley Ordinance No. 568**

Ordinance No. 568 would apply to the proposed Project and requires that all earth moving or grading operations requiring a grading permit also have an approved erosion control plan. The erosion control plan shall be submitted to the City Engineer for approval concurrent with the grading permit and/or grading plan submittal. The erosion control plan shall include details of protective measures necessary to protect adjoining public or private property from damage by erosion, flooding, or mud and/or debris deposits which may originate from the site or result from proposed grading operations.

- **Moreno Valley Ordinance No. 586**

Ordinance No. 586 would apply to the proposed Project and establishes standards and requirements for grading permits. This ordinance requires a soils engineering and engineering geology report (geotechnical report) be prepared for all grading projects. Recommendations contained in the approved geotechnical report are required to be incorporated into the grading plans and specifications and shall become conditions of the grading permit for the project.

- **Moreno Valley Ordinance No. 816**

Ordinance No. 816 would apply to the proposed Project and requires that all projects comply with California Building Codes and the International Building Codes. The City's Building and Safety Division is responsible for providing technical expertise in reviewing and enforcing the Building Code. These codes establish site-specific investigation requirements, construction standards, and inspection procedures to ensure that development does not pose a threat to the health, safety, and welfare of the public. The Building Code contains minimum baseline standards to guard against unsafe development.

4.5.3 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to geology and soils if the Project or any Project-related component would:

1. *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:*
   - i. *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;*
   - ii. *Strong seismic ground shaking;*
   - iii. *Seismic-related ground failure, including liquefaction; or*
   - iv. *Landslides.*
2. *Result in substantial soil erosion or the loss of topsoil;*
3. *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;*
4. *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property; or*
5. *Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.*

4.5.4 IMPACT ANALYSIS

Threshold 1: Would the Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:

- ***i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;***
- ***ii. Strong seismic ground shaking;***
- ***iii. Seismic-related ground failure, including liquefaction; or***
- ***iv. Landslides?***

❑ Rupture of Known Earthquake Fault

There are no known active or potentially active faults on the Project site or trending toward the Project site. In addition, the Project site is not located within a mapped Alquist-Priolo Earthquake Fault Zone (NorCal 2007 5). The closest active fault to the Project site is the San Jacinto Valley section of the San Jacinto Fault zone (Casa Loma Fault), which is located approximately eight (8) miles east of the Project site (California Department of Conservation 2010). There are no other conditions on-site or in the surrounding area that provide evidence of any other faults that could impact the Project site. Accordingly, the proposed Project would not expose people or structures to

potential adverse effects, including the risk of loss, injury or death, involving the rupture of a known earthquake fault. No impact would occur and mitigation is not required.

❑ Strong Seismic Ground Shaking

The Project site is located in a seismically active area of Southern California and is expected to experience moderate to severe ground shaking during the lifetime of the Project. This risk is not considered substantially different than that of other similar properties in the southern California area. As a mandatory condition of Project approval, the Project would be required to construct proposed structures in accordance with the CBC (Title 24) and the City of Moreno Valley Building Code. The CBC and the City of Moreno Valley Building Code have been designed to preclude significant adverse effects associated with strong seismic ground-shaking. In addition, the proposed Project would be required to adhere to the site-specific earthwork and geotechnical design recommendations contained within the Project's geotechnical report (refer to *Technical Appendix E*). With mandatory compliance with standard and site-specific design and construction measures, potential adverse impacts would be less than significant and the Project would not expose people or structures to substantial adverse effects, including loss, injury or death, involving seismic ground shaking. No adverse impacts would occur and mitigation would not be required.

❑ Seismic-Related Ground Failure

Based on the NorCal Engineering's review of the subsurface exploration data from the Project site, as well as a review of relevant literature, the liquefaction potential of the Project site is determined to be very low to low. In addition, the Project site is not identified within a City-designated liquefaction zone (City of Moreno Valley 2006b 5.6-5). As noted previously, the site would be designed in accordance with the latest applicable seismic safety guidelines, including the standard requirements of the CBSC and City of Moreno Valley Building Code, as well as the site-specific recommendations contained within the Project geotechnical report, which are anticipated to further reduce the risk of seismic-related ground failure. As such, significant impacts associated with seismic-related ground failure and/or liquefaction hazards would not occur and mitigation would not be required.

❑ Landslides

The Project site is relatively flat, as is the surrounding area. There are no hillsides or steep slopes on-site or in the vicinity of the Project site. Accordingly, the Project would be located within an area with low potential for landslides, and development on the subject property would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving landslides. Impacts would be less than significant and mitigation would not be required.

Threshold 2: Would the Project result in substantial soil erosion or the loss of topsoil?

❑ Temporary Construction-Related Activities

The Project site is subject to some wind and water erosion under existing conditions, due to its sparse vegetative cover. Proposed grading activities would expose underlying soils at the Project site, which would increase erosion susceptibility during grading and construction activities. Exposed soils, along with any fill materials being stockpiled on the site for use in the grading operation, would be subject to erosion during rainfall events or high winds due to the removal of stabilizing vegetation and exposure of these erodible materials to wind and water. Erosion by water would be greatest

during the first rainy season after grading (before landscaping becomes established). Erosion by wind would be highest during periods of high wind speeds. The property is generally flat and erosion potential is not substantial.

Pursuant to the requirements of the State Water Resources Control Board, the Project applicant is required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for construction activities. The NPDES permit is required for all projects that include construction activities, such as clearing, grading, and/or excavation that disturb at least one acre of total land area. This NPDES Permit requires the Project applicant to prepare and submit to the City for approval a Project-specific Storm Water Pollution Prevention Plan (SWPPP) and Water Quality Management Plan (WQMP). The SWPPP and WQMP must identify and implement an effective combination of erosion control and sediment control measures (*i.e.*, Best Management Practices) to reduce or eliminate discharge to surface water from storm water and non-storm water discharges. Adherence to the requirements noted in the Project's required WQMP (refer to *Technical Appendix I*) and site-specific SWPPP would ensure that potential construction-related impacts associated with water erosion would be less than significant.

During grading and other construction activities involving soil exposure or the transport of earth materials, City of Moreno Valley Ordinance No. 568, which establishes requirements for the control of erosion during construction (including wind erosion), would apply to the Project. In addition, requirements for the reduction of particulate matter in the air would apply, which are discussed in EIR Subsection 4.2, *Air Quality*, and addressed by SCAQMD Rule 403. With mandatory compliance to these regulatory requirements, the potential for wind erosion impacts would be less than significant.

❑ Long-Term Operational Activities

Following construction, wind and water erosion on the Project site would be minimized, as the areas disturbed during construction would be landscaped or covered with impervious surfaces and drainage would be controlled through a storm drain system. As discussed in detail in EIR Subsection 4.8, *Hydrology and Water Quality*, the Project would not increase the rate or amount of runoff leaving the site, as compared to existing conditions. As part of the Project, the City is requiring the construction of stormwater facilities (such as detention basins) to reduce flows to pre-development conditions. As discussed in Subsection 4.8, construction of detention/water quality basins on the site would ensure that post-development rates and amounts of runoff are similar to those occurring under existing conditions. Accordingly, implementation of the proposed Project would not increase the risk of siltation or erosion in stormwater discharged from the Project site. In addition, the WQMP for the Project (refer to *Technical Appendix I*) requires post-construction measures to ensure ongoing erosion protection. Compliance with the WQMP would be required as a condition of Project approval and long-term maintenance of on-site water quality features would be required. Therefore, implementation of the proposed Project would not significantly increase the risk of erosion on or off site in the long term. Impacts would be less than significant and mitigation would not be required.

Threshold 3: ***Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?***

The Project site is flat and gently sloping and contains no substantial natural or manmade slopes. Based on the geotechnical investigation prepared by NorCal Engineering, there is no evidence of on-site landslides on or near the Project site, nor are there any exposed boulders that could result in rockfall hazards. Slopes constructed as part of the Project's proposed detention basins would be engineered for long term stability. Accordingly, impacts associated with landslides and rockfall hazards would be less than significant.

Ground subsidence refers to the sudden sinking or gradual downward settling and compaction of soil and other surface material with little or no horizontal motion. Based on laboratory testing of subsurface soils from the Project site, NorCal Engineering determined that the near surface soils have potential for shrinkage and subsidence. However, the Project's geotechnical report indicates that the site's shrinkage and subsidence potential would be attenuated through removal of near surface soils down to competent materials and replacement with properly compacted fill, which is included as a recommendation in the Project geotechnical report (NorCal 2007 9). The proposed Project would be required to incorporate the recommendations contained within the Project geotechnical report into the grading plan to implement the Project, pursuant to Moreno Valley Ordinance No. 586. The City of Moreno Valley Community Development Department (Land Development Division) would enforce Ordinance No. 586 during future review of implementing plans and permits, and would incorporate the recommendations contained within the Project's geotechnical report (*Technical Appendix E*) into the conditions of approval for the implementing grading plan. Accordingly, with mandatory compliance with the earthwork recommendations provided in the Project geotechnical report, impacts due to shrinkage or subsidence would be less than significant.

Finally, lateral spreading is primarily associated with liquefaction hazards, and occurs when the ground slides on a buried liquefied layer, potentially resulting in damage to structures placed above such layers. As noted above under the discussion of Threshold 1, the potential for liquefaction at the site is considered low based on a site-specific analysis conducted by NorCal Engineering (NorCal 2007 6). Accordingly, impacts associated with lateral spreading would not occur.

Threshold 4: ***Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?***

The results of soil testing conducted by NorCal Engineering indicate that near surface soils possess a very low expansion potential. The majority of the site's near surface soils consist of silty sands and sandy silts that generally possess a very low expansion potential and exhibit relatively good to moderate shear strength characteristics. No special design considerations related to expansive soils would be warranted for the Project (NorCal 2007 15). Accordingly, the proposed Project would not be located on expansive soil and would not create a substantial risk to life or property. Impacts would be less than significant and mitigation would not be required.

Threshold 5:	***Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?***

Sewer service is available to the Project site under pre-development conditions, and the Project proposes to connect to an existing sewer line adjacent to and north of the Perris Valley Storm Drain Channel (adjacent to the southern portion of the Project site, see Figure 3-8, *Conceptual Sewer Plan*). The Project also would connect to existing sewer conveyance infrastructure located off site, near the intersection of Heacock Street and Cardinal Avenue. The Project would not install septic tanks or alternative wastewater disposal systems on the Project site. Accordingly, no impact would occur.

4.5.5 CUMULATIVE IMPACT ANALYSIS

As noted in the foregoing analysis of the Project's direct impacts, all potential Project-specific impacts related to geology and soils would be below the threshold of significance identified Subsection 4.5.3 through conformance with the geotechnical recommendations contained within the Project geotechnical report (*Technical Appendix E*) and compliance with standard regulatory requirements as part of the Project's design.

With exception of erosion hazards, potential geologic and soils effects are inherently restricted to the areas proposed for development and would not contribute to cumulative impacts associated with other existing, planned, or proposed development. That is, issues including fault rupture, seismic ground shaking, liquefaction, landslides, and expansive soils would involve effects to (and not from) the proposed development, and are specific to on-site conditions. Accordingly, addressing these potential hazards for the proposed development would involve using measures to conform to existing requirements, and/or site-specific design and construction efforts that have no relationship to, or impact on, off-site areas. Because of the site-specific nature of these potential hazards and the measures to address them, there would be no connection to similar potential issues or cumulative effects to or from other properties.

As discussed under Threshold 2, during both near-term construction and long-term operation, measures would be incorporated into the Project's design to ensure that significant erosion hazards do not occur. Other developments within the cumulative study area would be required to comply with similar requirements, such as the need to obtain an NPDES permit and mandatory compliance with the resulting SWPPPs and WQMPs. All development projects in the cumulative study area identified in Subsection 4.0.2 also would be required to demonstrate that measures have been incorporated to ensure that development does not result in substantial increases in the amount or rate of runoff, which could in turn increase soil erosion. All projects in the cumulative study area also would be required to comply with Moreno Valley Ordinance No. 568 and SCAQMD Rule 403, which would preclude wind-related erosion hazards during construction. Therefore, because the Project would not result in significant erosion impacts, and because other projects within the cumulative study area would be subject to similar requirements to control erosion hazards during construction and long-term operation, cumulative impacts associated with wind and water erosion hazards are evaluated as less than significant.

4.5.6 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions that the Project would be required to adhere to. Compliance with these measures was assumed throughout the above analysis of impacts related to geology and soils.

PR 4.5-1 Structures are required to be constructed in accordance with the City of Moreno Valley Building Code (City of Moreno Ordinance No. 816) and California Code of Regulations, Title 24, Part 2, the California Green Building Standards Code, which provides minimum standards for building design.

PR 4.5-2 All grading and earthwork activities are required to be performed in accordance with all applicable requirements of the City of Moreno Valley grading and excavation code (City of Moreno Valley Ordinance No. 586).

PR 4.5-3 The Project is required to obtain coverage under the General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit, 99-08-DWQ). The Permit will require the preparation and implementation of a Stormwater Pollution Prevention Plan and implementation of Best Management Practices.

PR 4.5-4 During grading and construction activities, the construction contractor(s) are required to comply with the requirements of SCAQMD Rule 403, Fugitive Dust.

PR 4.5-5 The Project is required by the City of Moreno Valley to comply with all recommendations given in its geotechnical study (*Technical Appendix E* to this EIR).

4.5.7 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: Less than Significant Impact. The Project would not expose people or structures to substantial adverse seismic risks. There are no known active or potentially active faults on the Project site or trending toward the Project site. On-site soils are relatively stable. The risk of liquefaction is low. There is no risk of landslide. As with all properties within the Southern California region, the Project site is subject to seismic ground shaking associated with earthquakes. However, mandatory compliance with local and state ordinances and building codes would ensure that on-site structures are developed as required to attenuate the risk to life or property to less than significant levels.

Threshold 2: Less than Significant Impact. The Project would not result in substantial soil erosion or loss of topsoil. Soils the site would be exposed to water and wind erosion during grading and site development, but with the application of mandatory regulatory requirements, including the preparation and implementation of a WQMP, a SWPPP, and compliance to applicable City ordinances, erosion impacts on and off site would not be substantial and less than significant.

Threshold 3: Less than Significant Impact. The Project would not cause geologic unit or soil instability. There is no potential for the Project to cause rockfalls, landslides, or lateral spreading. Although soils on the site have the potential for soil shrinkage and settlement, any potential adverse effects associated with such conditions would be less than significant with mandatory compliance

with the recommendations provided within the Project geotechnical study, including requirements to remove and re-compact areas where such soil conditions exist.

Threshold 4: Less than Significant Impact. The Project would not be located on expansive soils. Near surface soils on the Project site possess a very low expansion potential.

Threshold 5: No Impact. The Project would not install septic tanks or alternative wastewater disposal systems. Accordingly, no impact would occur associated with soil compatibility for waste disposal systems.

4.5.8 MITIGATION

Impacts would not be significant; therefore, mitigation measures would not be required.

4.6 GREENHOUSE GAS EMISSIONS

This subsection assesses the Project's potential to generate greenhouse gas emissions that could contribute to Global Climate Change and its associated environmental effects. The analysis in this subsection is based in part on information contained in the report titled, "March Business Center Greenhouse Gas Analysis," prepared by Urban Crossroads, Inc. and dated October 31, 2011 and included as *Technical Appendix F* to this EIR.

4.6.1 EXISTING CONDITIONS

A. Introduction to Global Climate Change

Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. Debate exists within the scientific community regarding the extent to which GCC is occurring naturally or as a result of human activity. Some data suggests that GCC has occurred naturally over the course of thousands or millions of years, as in the case of an ice age. However, other scientists believe that the climate shift taking place since the industrial revolution (1900) is occurring at a quicker rate and magnitude than in the past (Urban Crossroads 2011b 13).

Scientific evidence suggests that GCC is the result of increased concentrations of greenhouse gases (GHGs) in the earth's atmosphere. These gases include water vapor, CO_2 (carbon dioxide), N_2O (nitrous oxide), CH_4 (methane), hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the Earth's atmosphere, but prevent radioactive heat from escaping, thus warming the earth's atmosphere. These gases that trap heat in the atmosphere are referred to collectively in this EIR as GHGs, which are released into the atmosphere by both natural and anthropogenic (human) activity. Without the natural greenhouse gas effect, the Earth's average temperature would be approximately 61° Fahrenheit (F) cooler than it is currently (Urban Crossroads 2011b 13-15).

An individual project like the proposed March Business Center cannot generate enough GHG emissions to make a discernible change in global climate. However, the proposed Project may participate in the potential for GCC through incremental contribution of GHGs when considered in combination with other worldwide sources of GHGs (Urban Crossroads 2011b 13).

B. Greenhouse Gases

Emissions of CO_2, N_2O, and CH_4 (carbon dioxide, nitrous oxide and methane) are the focus of evaluation in this subsection because these gasses are the primary contributors to GCC from development projects. Although other substances such as fluorinated gases also contribute to GCC, sources of fluorinated gases are not well defined and no accepted emissions factors or methodology exist to accurately calculate these gases (Urban Crossroads 2011b 16).

Greenhouse gases have varying global warming potential (GWP) values; GWP values represent the potential of a gas to trap heat in the atmosphere. Carbon dioxide is used as the reference gas for GWP, and thus has a GWP of 1. The atmospheric lifetime and GWP of selected greenhouse gases are summarized in Table 4.6-1, *Global Warming Potentials (GWP) and Atmospheric Lifetime of Select GHGs*. As shown in the table below, GWP ranges from 1 for carbon dioxide to 23,900 for sulfur hexafluoride (Urban Crossroads 2011b 16).

Table 4.6-1 Global Warming Potentials (GWP) and Atmospheric Lifetime of Select GHGs

GAS	ATMOSPHERIC LIFETIME (YEARS)	GWP (100 YEAR TIME HORIZON)
Carbon Dioxide (CO_2)	50-200	1
Methane (CH_4)	12 ± 3	21
Nitrous Oxide (N_2O)	120	310
HFC-23	264	11,700
HFC-134a	14.6	1,300
HFC-152a	1.5	140
PFC: Tetrafluoromethane (CH_4)	50,000	6,500
PFC: Hexafluoroethane (C_2F_6)	10,000	9,200
Sulfur Hexafluoride (SF_6)	3,200	23,900

Source: Urban Crossroads 2011b, Table 2-2.

Provided below is a description of the various gases that contribute to GCC. For more information about these gasses and their associated human heath effects, refer to *Technical Appendix F*, pages 12-21 and the reference sources cited therein.

- Water Vapor. Water vapor (H_2O) is the most abundant, important, and variable greenhouse gas in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. The feedback loop in which water is involved is critically important to projecting future climate change.

  As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation, thereby allowing less energy to reach the Earth's surface and heat it up. There are no human health effects from water vapor itself; however, when some pollutants come in contact with water vapor, they can dissolve and the water vapor can then act as a pollutant-carrying agent.

- Carbon Dioxide. Carbon dioxide (CO_2) is an odorless and colorless GHG that is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Manmade sources include: the burning of coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s, the sort of human activity that increases CO_2 emissions has increased dramatically. As an example, prior to the industrial revolution, CO_2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370

ppm, an increase of more than 30%. Exposure to CO_2 in high concentrations can cause human health effects, but outdoor levels are not high enough to adversely affect human health.

- Methane. Methane (CH_4) is an extremely effective absorber of radiation, though its atmospheric concentration is less than CO_2 and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs. Methane has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning. No human health effects are known to occur from exposure to methane

- Nitrous Oxide. Nitrous oxide (N_2O), also known as laughing gas, is a colorless greenhouse gas that can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage). Concentrations of nitrous oxide began to rise in the atmosphere at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb). Nitrous oxide is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, (e.g., in whipped cream bottles). It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. Nitrous oxide can be transported into the stratosphere, be deposited on the Earth's surface, and be converted to other compounds by chemical reaction.

- Chlorofluorocarbons. Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

- Hydrofluorocarbons. Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). Prior to 1990, the only significant emissions were of HFC-23. HFC-134a emissions are increasing due to its use as a refrigerant. The U.S. EPA estimates that concentrations of HFC-23 and HFC-134a are now about 10 parts per trillion (ppt) each; and that concentrations of HFC-152a are about 1 ppt. No human health effects are known to result from exposure to HFCs, which are manmade for applications such as automobile air conditioners and refrigerants.

- Perfluorocarbons. The two primary sources of perfluorocarbons (PFCs) are aluminum production and semiconductor manufacture PFCs have stable molecular structures and do not

break down through chemical processes in the lower atmosphere. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). The U.S. EPA estimates that concentrations of CF_4 in the atmosphere are over 70 ppt. No health effects are known to result from exposure to PFCs.

- Sulfur Hexafluoride. Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900). The U.S. EPA indicates that concentrations in the 1990s were about 4 ppt. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

C. *Greenhouse Gas Emissions Inventories*

❑ Global

Worldwide anthropogenic (man-made) GHG emissions are tracked by the Intergovernmental Panel on Climate Change for industrialized nations (referred to as Annex I nations) and developing nations (referred to as Non-Annex I nations). Man-made GHG emissions data for Annex I nations are available through 2009. Man-made GHG emissions data for Non-Annex I nations are available through 2007. For the Year 2009, the sum of GHG emissions totaled approximately 40,084 million metric tones of carbon dioxide equivalent ($MMTCO_2e$). Emissions from the top five countries and the European Union accounted for approximately 65% of the total global GHG emissions, according to the most recently available data (see Table 4.6-2, *Top GHG Producer Countries and the European Union*). The GHG emissions in more recent years may differ from the inventories presented in Table 4.6-2; however, the data is representative of currently available inventory data (Urban Crossroads 2011b 13-15).

Table 4.6-2 Top GHG Producer Countries and the European Union

EMITTING COUNTRIES	GHG EMISSIONS ($MMTCO_2E$)
China	6,703
United States	6,608
European Union	8,338
Russian Federation	2,159
India	1,410
Japan	1,209
Total	**26,427**

Source: Urban Crossroads 2011b, Table 2-1.

❑ United States

As noted in Table 4.6-2, the United States was the number two producer of GHG emissions in 2009. The primary greenhouse gas emitted by human activities in the United States was carbon dioxide (CO_2), representing approximately 83% of the total GHGs. Carbon dioxide from fossil fuel combustion, the largest source of United States GHG emissions, accounted for approximately 78% of the country's 2009 GHG emissions (Urban Crossroads 2011b 14).

❑ State of California

The California Air Resources Board (CARB) compiles GHG inventories for the State of California. Based upon the 2008 GHG inventory data (i.e., the latest year for which data are available), California emitted 474 $MMTCO_2e$ including emissions resulting from imported electrical power. Based on the CARB inventory data and GHG inventories compiled by the World Resources Institute, California's total statewide GHG emissions rank second in the United States (Texas is number one) with emissions of 417 $MMTCO_2e$, excluding emissions related to imported power (Urban Crossroads 2011b 15).

California's rate of growth of greenhouse gas emissions is slowing. Despite a population increase of 16% between 1990 and 2004, and based on a review of GHG inventories for those years, California had significantly slowed the rate of growth of GHG emissions. This is in part due to the implementation of energy efficiency programs as well as adoption of strict emission controls (Urban Crossroads 2011b 16). These types of controls have been maintained in California and strengthened with additional controls imposed since 2004.

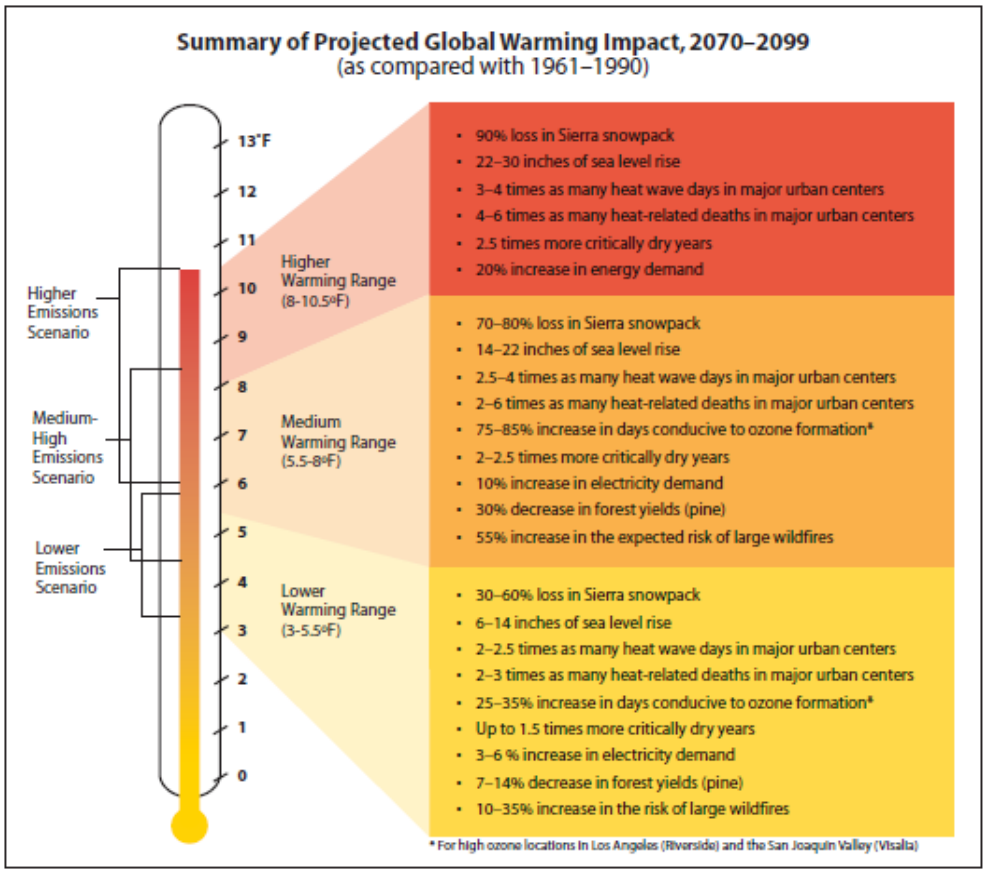
D. Effects of Climate Change in California

The California Environmental Protection Agency (CalEPA) published a report titled "Scenarios of Climate Change in California: An Overview" (Climate Scenarios report) in February 2006, that is generally instructive about the statewide impacts of global warming. The Climate Scenarios report uses a range of emissions scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) to project a series of potential warming ranges (i.e., temperature increases) that may occur in California during the 21st century: lower warming range (3.0-5.5^{o}F); medium warming range (5.5-8.0^{o}F); and higher warming range (8.0-10.5^{o}F). The Climate Scenarios report then presents an analysis of future climate in California under each warming range, that while uncertain, present a picture of the impacts of global climate change trends in California (Urban Crossroads 2011b 20).

In addition, most recently on August 5, 2009, the State's Natural Resources Agency released a public review draft of its "California Climate Adaptation Strategy" report that details many vulnerabilities arising from climate change with respect to matters such as temperature extremes, sea level rise, wildfires, floods and droughts and precipitation changes. This report responds to the Governor's Executive Order S-13-2008 that called on state agencies to develop California's strategy to identify and prepare for expected climate impacts (Urban Crossroads 2011b 20-21).

According to the reports, substantial temperature increases arising from increased GHG emissions worldwide could result in a variety of impacts to the people, economy, and environment of California, with the severity of the impacts depending upon actual future emissions of GHGs and associated warming. Figure 4.6-1, *Summary of Projected Global Warming Impact, 2070-2099*, presents the potential impacts of global warming.

Figure 4.6-1 Summary of Projected Global Warming Impact, 2070-2099



Source: Urban Crossroads 2011b, Figure 1.

Under the emissions scenarios of the Climate Scenarios and California Climate Adaption Strategy reports, the impacts of global warming in California have the potential to include, but are not limited to, the following areas. For more information, refer to *Technical Appendix F*, pages 12-21 and the reference sources cited therein.

❑ Public Health

The potential human health effects related directly to GHG emissions (including carbon dioxide, methane, and nitrous oxide as they relate to development projects such as the proposed Project) are still being debated in the scientific community. The contribution that these GHGs make to GCC have the potential to cause adverse effects to human health in various ways. Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35% under the lower warming range, to 75% to 85% under the medium warming range. In addition, local air quality standards could be violated and air quality could be further compromised by increases in wildfires. In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. Poor air quality and rising temperatures could increase human health effects and death associated with dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress. Scientists also purport that higher ambient temperatures would increase disease survival rates and

result in more widespread disease. Shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas, also could affect the human population.

❑ Water Resources

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages. Additionally, if temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70% to 90%. The loss of snowpack could pose challenges to water managers, hamper hydropower generation, and adversely affect winter tourism. The State's water supplies are also at risk from rising sea levels. An influx of salt water could degrade California's estuaries, wetlands, and groundwater aquifers and be a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply.

❑ Agriculture

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. California farmers could face water shortages. Crops may grow faster and be more susceptible to pests and disease outbreaks due to higher atmospheric temperatures. Faster plant growth could worsen the quantity and quality of yield for some crops such as wine grapes, fruit, and nuts. Although higher CO_2 levels can stimulate plant production and increase plant water-use efficiency, there may still be a water shortage for the agricultural industry. In addition, continued global climate change could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants.

❑ Forests and Landscapes

Global climate change has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55%, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state. Continued global climate change also has the potential to alter natural ecosystems and biological diversity, including a decrease in forest productivity, as a result of increasing temperatures.

❑ Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12 to 14 inches.

E. Regulatory Setting

Below is an account of the regulatory programs, policies, laws, and regulations that are applicable to GHG emissions and GLC in California. For more information, refer to *Technical Appendix F*, pages 22-33 and the reference sources cited therein.

❑ International Regulation and the Kyoto Protocol

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling greenhouse gas emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The Plan currently consists of more than 50 voluntary programs for member nations to adopt.

The Kyoto protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. Some have estimated that if the commitments outlined in the Kyoto protocol are met, global GHG emissions could be reduced an estimated 5% from 1990 levels during the first commitment period of 2008-2012. Notably, while the United States is a signatory to the Kyoto protocol, Congress has not ratified the Protocol and the United States is not bound by the Protocol's commitments. In December 2009, international leaders from 192 nations met in Copenhagen to address the future of international climate change commitments post-Kyoto.

❑ Federal Regulation and the Clean Air Act

Coinciding with the 2009 meeting of international leaders in Copenhagen, on December 7, 2009, the U.S. Environmental Protection Agency (EPA) issued an Endangerment Finding under §202(a) of the Clean Air Act, opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the Clean Air Act. To date, the EPA has not promulgated regulations on GHG emissions, but it has begun to develop them.

Previously the EPA had not regulated GHGs under the Clean Air Act because it asserted that the Act did not authorize it to issue mandatory regulations to address GCC and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In Massachusetts v. Environmental Protection Agency et al. (127 S. Ct. 1438 [2007]), however, the U.S. Supreme Court held that GHGs are pollutants under the Clean Air Act and directed the EPA to decide whether the gases endangered public health or welfare. The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the U.S. Congress adopts major climate change legislation. The EPA's Endangerment Finding paves the way for federal regulation of GHGs with or without Congress.

Although global climate change did not become an international concern until the 1980s, efforts to reduce energy consumption began in California in response to the oil crisis in the 1970s, resulting in the incidental reduction of greenhouse gas emissions. In order to manage the state's energy needs and promote energy efficiency, AB 1575 created the California Energy Commission (CEC) in 1975.

❑ Title 24 Energy Standards

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The latest revisions were adopted in 2008 and became effective on January 1, 2010.

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code.

❑ California Assembly Bill No. 1493 (AB 1493)

AB 1493 requires CARB to develop and adopt the nation's first greenhouse gas emission standards for automobiles. The Legislature declared in AB 1493 that global warming was a matter of increasing concern for public health and environment in California. Further, the legislature stated that technological solutions to reduce greenhouse gas emissions would stimulate the California economy and provide jobs.

To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) adding GHG emission standards to California's existing motor vehicle emission standards in 2004. Amendments to CCR Title 13 Sections 1900 (CCR 13 1900) and 1961 (CCR 13 1961) and adoption of §1961.1 (CCR 13 1961.1) require automobile manufacturers to meet fleet average GHG emission limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes beginning with the 2009 model year. Emission limits are further reduced each model year through 2016.

In December 2004 a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against CARB to prevent enforcement of CCR 13 1900 and CCR 13 1961 as amended by AB 1493 and CCR 13 1961.1 (*Central Valley Chrysler-Jeep et al. v. Catherine E. Witherspoon, in her official capacity as Executive Director of the California Air Resources Board, et al.*). The suit, heard in the U.S. District Court for the Eastern District of California, contended that California's implementation of regulations that in effect regulate vehicle fuel economy violates various federal laws, regulations, and policies. In January 2007, the judge hearing the case accepted a request from the State Attorney General's office that the trial be postponed until a decision is reached by the U.S. Supreme Court on a separate case addressing GHGs. In the Supreme Court Case, *Massachusetts vs. EPA*, the primary issue in question is whether

the federal CAA provides authority for U.S. EPA to regulate CO_2 emissions. In April 2007, the U.S. Supreme Court ruled in Massachusetts' favor, holding that GHGs are air pollutants under the CAA. On December 11, 2007, the judge in the Central Valley Chrysler-Jeep case rejected each plaintiff's arguments and ruled in California's favor. On December 19, 2007, the U.S. EPA denied California's waiver request. California filed a petition with the Ninth Circuit Court of Appeals challenging U.S. EPA's denial on January 2, 2008.

The Obama administration subsequently directed the USEPA to re-examine their decision. On May 19, 2009, challenging parties, automakers, the State of California, and the federal government reached an agreement on a series of actions that would resolve these current and potential future disputes over the standards through model year 2016. In summary, the USEPA and the U.S. Department of Transportation agreed to adopt a federal program to reduce GHGs and improve fuel economy, respectively, from passenger vehicles in order to achieve equivalent or greater greenhouse gas benefits as the AB 1493 regulations for the 2012–2016 model years. Manufacturers agreed to ultimately drop current and forego similar future legal challenges, including challenging a waiver grant, which occurred on June 30, 2009. The State of California committed to (1) revise its standards to allow manufacturers to demonstrate compliance with the fleet-average GHG emission standard by "pooling" California and specified State vehicle sales; (2) revise its standards for 2012–2016 model year vehicles so that compliance with USEPA-adopted GHG standards would also comply with California's standards; and (3) revise its standards, as necessary, to allow manufacturers to use emissions data from the federal CAFE program to demonstrate compliance with the AB 1493 regulations. Both of these programs are aimed at light-duty auto and light-duty trucks.

❑ Executive Order S-3-05

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra's snow pack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 1990 level by 2020, and to 80% below the 1990 level by 2050. The Executive Order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The Secretary also is required to submit biannual reports to the Governor and state Legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of the CalEPA created a Climate Action Team (CAT) made up of members from various state agencies and commission. CAT released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

❑ California Assembly Bill 32 (AB 32)

In September 2006, Governor Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. This reduction is to be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG

emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

In November 2007, CARB completed its estimates of 1990 GHG levels. Net emission 1990 levels were estimated at 427 MMTs (emission sources by sector were: transportation – 35%; electricity generation – 26%; industrial – 24%; residential – 7%; agriculture – 5%; and commercial – 3%). Accordingly, 427 MMTs of CO_2 equivalent was established as the emissions limit for 2020. For comparison, CARB's estimate for baseline GHG emissions was 473 MMT for 2000 and 532 MMT for 2010. "Business as usual" conditions (without the 30% reduction to be implemented by CARB regulations) for 2020 were projected to be 596 MMTs.

In December 2007, CARB approved a regulation for mandatory reporting and verification of GHG emissions for major sources. This regulation covered major stationary sources such as cement plans, oil refineries, electric generating facilities/providers, and co-generation facilities, which comprise 94% of the point source CO_2 emissions in the State.

On December 11, 2008, CARB adopted a scoping plan to reduce GHG emissions to 1990 levels. The Scoping Plan's recommendations for reducing GHG emissions to 1990 levels by 2020 include emission reduction measures, including a cap-and-trade program linked to Western Climate Initiative partner jurisdictions, green building strategies, recycling and waste-related measures, as well as Voluntary Early Actions and Reductions. Implementation of individual measures must begin no later than January 1, 2012, so that the emissions reduction target can be fully achieved by 2020.

Table 4.6-3, *Scoping Plan GHG Reduction Measures Toward 2020 Target*, shows the proposed reductions from regulations and programs outlined in the Scoping Plan. While local government operations were not accounted for in achieving the 2020 emissions reduction, local land use changes are estimated to result in a reduction of 5 $MMTCO_2e$, which is approximately 3% of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments will play in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15% of 2006 levels by 2020 to ensure that municipal and community-wide emissions match the state's reduction target. According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2% through land use planning, resulting in a potential GHG reduction of 2 MMTCO2e (or approximately 1.2% of the GHG reduction target).

Table 4.6-3 Scoping Plan GHG Reduction Measures Toward 2020 Target

RECOMMENDED REDUCTION MEASURES	REDUCTIONS COUNTED TOWARD 2020 TARGET OF 169 MMT CO_2E	PERCENTAGE OF STATEWIDE 2020 TARGET
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33% by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets[1]	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	**146.7**	**87%**
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	**27.3**	**16%**
Total Reductions Counted toward 2020 Target	**174**	**100%**
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined[2]	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	**42.8**	**NA**

1. Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.
2. According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2% through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO_2e (or approximately 1.2% of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 Target.

Source: Urban Crossroads 2011b, Table 2-3. MMTons CO_2e: million metric tons of CO_2e.

❑ California Senate Bill No. 1368 (SB 1368)

In 2006, the State Legislature adopted Senate Bill 1368 (SB 1368), which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission (CPUC) to adopt a greenhouse gas emission performance standard (EPS) for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Due to the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants. Accordingly, the new law will effectively prevent California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to dramatically lower greenhouse gas emissions associated with California

energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out of state producers that cannot satisfy the EPS standard required by SB 1368.

❑ Senate Bill 97 (SB 97)

Pursuant to the direction of SB 97, OPR released preliminary draft CEQA Guideline amendments for greenhouse gas emissions on January 8, 2009, and submitted its final proposed guidelines to the Secretary for Natural Resources on April 13, 2009. The Natural Resources Agency adopted the Guideline amendments and they became effective on March 18, 2010.

Of note, the new guidelines state that a lead agency shall have discretion to determine whether to use a quantitative model or methodology, or in the alternative, rely on a qualitative analysis or performance based standards. CEQA Guideline § 15064.4(a) state that "[a] lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use… ; or (2) Rely on a qualitative analysis or performance based standards."

CEQA emphasizes that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (See CEQA Guidelines §15130[f]). Section 15064.4(b) of the CEQA Guidelines provides direction for lead agencies for assessing the significance of impacts of greenhouse gas emissions. The CEQA Guideline amendments do not identify a threshold of significance for greenhouse gas emissions, nor do they prescribe assessment methodologies or specific mitigation measures. Instead, they call for a "good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." The amendments encourage lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies' discretion to make their own determinations based upon substantial evidence.

❑ Executive Order S-01-07

On January 18, 2007 California Governor Schwarzenegger, through Executive Order S-01-07, mandated a statewide goal to reduce the carbon intensity of California's transportation fuel by at least 10% by 2020. The order also requires that a California specific Low Carbon Fuel Standard be established for transportation fuels.

❑ Senate Bills 1078 and 107 and Executive Order S-14-08

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20% of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008 Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Energy Standard to 33% renewable power by 2020.

❑ Senate Bill 375 (SB 375)

SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPO's regional transportation plan. CARB, in consultation with MPOs, will provide each affected region

with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight (8) years but can be updated every four (4) years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects will not be eligible for funding programmed after January 1, 2012.

❑ CARB's Preliminary Draft Staff Proposal for Interim Significance Thresholds

Separate from its Scoping Plan approved in December of 2008, CARB issued a Staff Proposal in October 2008, as its first step toward developing recommended statewide interim thresholds of significance for GHGs that may be adopted by local agencies for their own use. CARB staff's objective in this proposal is to develop a threshold of significance that will result in the vast majority (approximately 90% statewide) of GHG emissions from new industrial projects being subject to CEQA's requirement to impose feasible mitigation. The proposal does not attempt to address every type of project that may be subject to CEQA, but instead focuses on common project types that, collectively, are responsible for substantial GHG emissions – specifically, industrial, residential, and commercial projects. CARB is developing these thresholds in these sectors to advance climate objectives, streamline project review, and encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state. These draft thresholds are under revision in response to comments. There is currently no timetable for finalized thresholds at this time.

As currently proposed by CARB, the threshold consists of a quantitative threshold of 7,000 metric tons (MT) of CO_2e per year for operational emissions (excluding transportation), and performance standards for construction and transportation emissions. These performance standards have not yet been developed. CARB's proposal was not final at the time that the NOP for this EIR was released for public review (June 2011) and thus cannot be applied to the Project. Further, CARB's proposal sets forth draft thresholds for industrial projects that have high operational stationary GHG emissions, such as manufacturing plants, or uses that utilize combustion engines. Mobile source emissions are not addressed. The GHG emissions that would be emitted by the Project evaluated in this EIR would be mostly from mobile sources, and as such, the CARB proposal is not applicable to the Project.

❑ South Coast Air Quality Management District Recommendations for Significance Thresholds

In April 2008, the South Coast Air Quality Management District (SCAQMD), in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents, convened a "GHG CEQA Significance Threshold Working Group." The goal of the working group is to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until CARB (or some other state agency) develops statewide guidance on assessing the significance of GHG emissions under CEQA.

Initially, SCAQMD staff presented the working group with a significance threshold that could be applied to various types of projects: residential; non-residential; industrial; etc. However, the threshold is still under development. In December 2008, staff presented the SCAQMD Governing Board with a significance threshold for stationary source projects where it is the lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons of carbon dioxide equivalent ($MTCO_2e$) as a screening numerical threshold for stationary sources.

In September 2010, the Working Group released additional revisions which recommended a threshold of 3,500 $MTCO_2e$ for residential projects, 1,400 $MTCO_2e$ for commercial projects, and 3,000 $MTCO_2e$ for mixed use projects; additionally, the working group identified project-level efficiency target of 4.8 $MTCO_2e$ per service population as a 2020 target and 3.0 $MTCO_2e$ per service population as a 2035 target. The recommended plan-level target for 2020 was 6.6 $MTCO_2e$ and the plan level target for 2035 was 4.1 $MTCO_2e$. The SCAQMD has not announced when staff is expecting to present a finalized version of these thresholds to the Governing Board. The SCAQMD has also adopted Rules 2700, 2701, and 2702 that address GHG reductions; however, these rules are currently applicable to boilers and process heaters, forestry, and manure management projects that have no applicability to the Project evaluated in this EIR.

- **City of Moreno Valley**

The City of Moreno Valley does not have any official policies or goals addressing GHG or climate change. However, a number of implementing policies contained within the City's General Plan will result in the indirect reduction in City-wide GHG emissions through reductions in vehicle trips, vehicle miles traveled, and energy use. A discussion of the Project's consistency with these policies is provided in Subsection 4.9, Land Use and Planning.

The City of Moreno Valley is preparing a Climate Action Plan (CAP) to address GHG emissions; however, the CAP was not available for public review at the time the NOP for this EIR was released for public review (June 2011).

4.6.2 BASIS FOR DETERMINING SIGNIFICANCE

In order to assess the significance of a proposed Project's environmental impacts it is necessary to identify quantitative or qualitative thresholds which, if exceeded, would constitute a finding of significance. As discussed above in Subsection 4.6.1, while Project-related GHG emissions can be estimated, the direct impacts of such emissions on climate change and global warming cannot be determined on the basis of available science. There is no evidence at this time that would indicate that the emissions from a project the size of the proposed Project would directly or indirectly affect global climate change.

AB 32 states, in part, that "[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." Because global warming is the result of GHG emissions, and GHGs are emitted by innumerable sources worldwide, the proposed Project would not result in a direct impact to global warming; rather, Project-related impacts to global climate change only could be significant on a cumulative basis. Therefore, the analysis below focuses on the Project's potential to contribute to GCC in a cumulatively considerable way.

The CEQA Guidelines indicate that a project would result in a significant impact on climate change if a project were to:

1. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or*
2. *Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

Since AB 32 is the primary plan, policy or regulation adopted in the State of California to reduce GHG emissions, the proposed Project would have a significant impact if it does not comply with the regulations developed under AB 32. Neither the City of Moreno Valley nor the SCAQMD has adopted a threshold of significance for determining the cumulative significance of a project's GHG emissions on GCC. Therefore, for purposes of analysis within this subsection, the significance of the proposed Project's GCC impacts is based upon whether or not the Project can demonstrate compliance with the CARB Scoping Plan prepared in response to California Assembly Bill 32 (AB 32) and the State of California's Climate Action Team Report (2006), prepared in response to the California Governor's Executive Order S-3-05. This approach is consistent with past practice in the City of Moreno Valley.

4.6.3 IMPACT ANALYSIS

A. Methodology for Estimating Project-Related Greenhouse Gas Emissions

CEQA Guidelines §15064.4(b)(1) states that a lead agency may use a model or methodology to quantify greenhouse gas emissions associated with a project. On February 3, 2011, the SCAQMD released the California Emissions Estimator Model (CALEEMOD) Emissions Inventory Model™. The purpose of this model is to estimate air quality and GHG emissions from direct and indirect sources and quantify applicable air quality and GHG reductions achieved from mitigation measures. As such, the February 2011 CALEEMOD™ was used for estimating Project-related emissions. The CalEEMod™ model includes GHG emissions from the following source categories: construction, area, energy, mobile, waste, water (Urban Crossroads 2011b 40).

A full life-cycle analysis (LCA) is not included in the Project's Greenhouse Gas Analysis (*Technical Appendix F*) due to the lack of consensus guidance on LCA methodology. Life-cycle analysis (i.e., assessing economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the project development and infrastructure) depends on emission factors or econometric factors that are not well established for all processes. At this time a LCA would be extremely speculative and thus has not been prepared (Urban Crossroads 2011b 40).

❑ Methodology for Estimating Project-Related Construction Emissions

Construction activities associated with the proposed Project would result in emissions of CO_2 and CH_4 from the following construction activities:

- Site Preparation
- Grading
- Paving
- Building Construction
- Architectural Coatings (Painting)
- Construction Workers Commuting

Based on information about the Project's anticipated construction characteristics and schedule as supplied by the Project Engineer and Applicant, the approximate construction scheduling for each phase of construction was input into the CalEEMod™ model and defaults for all other assumptions were utilized. Please refer to Appendix B of the Greenhouse Gas Analysis (included within *Technical Appendix F* to this EIR) for more details on the construction emissions estimate methodology. Refer also to the specific detailed modeling inputs/outputs contained in Appendix A of the Greenhouse Gas Analysis (included within *Technical Appendix F* to this EIR). A detailed summary of construction

equipment assumptions by phase that were used as model inputs is provided on Table 4.6-4, *Construction Equipment Assumptions*. Equipment estimates were provided by the Project Engineer and Applicant as well as model defaults in the CalEEMod™ model. Construction emissions for construction worker vehicles traveling to and from the project site, as well as vendor trips (construction materials delivered to the project site), also were estimated based on information from the Project Engineer and Applicant and the CalEEMod™ model. Refer to Appendix B of the Greenhouse Gas Analysis (included within *Technical Appendix F* to this EIR) for more details (Urban Crossroads 2011b 37).

Table 4.6-4 Construction Equipment Assumptions

Operation	Water Trucks	Scraper	Grader	Rubber Tired Dozer	Tractor/Loader/Backhoe	Excavator	Pavers	Paving Equipment	Rollers	Forklift	Cranes	Air Compressor	Generator Set	Welder	Aerial Lifts
Phase I															
Site Preparation	2			3	4										
Mass Grading	2	5	1	2	2	2									
Building Construction					3					3	2		1	3	3
Paving							2	2	2						
Painting												3			2
Phase II															
Building Construction					3					3	2		3	3	
Paving							2	2	2						
Painting												3			2

Source: Urban Crossroads 2011b, Table 3-1.

In accordance with SCAQMD recommendations, the Project's construction phase GHG emissions were quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project per the recommended SCAQMD methodology, the total GHG emissions associated with the Project's proposed construction activities was calculated, divided by the project life span default (i.e., 30 years), and then adding that number to the annual operational phase GHG emissions. As such, construction emissions were amortized over a 30 year period and added to the annual operational phase GHG emissions (Urban Crossroads 2011b 37).

❑ Methodology for Estimating Project-Related Operational Emissions

Operational activities associated with the proposed Project would result in emissions of CO_2, CH_4, and N_2O from the following primary sources, each of which is discussed below:

- Building Energy Use
- Water Supply, Treatment and Distribution
- Solid Waste
- Mobile Source Emissions
- Building Energy Use

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO_2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. Unless otherwise noted, CalEEMod™ default parameters were used (Urban Crossroads 2011b 40).

- *Water Supply, Treatment and Distribution*

Indirect GHG emissions result from the production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water depends on the volume of water as well as the sources of the water.

Water use information contained in the Project's Water Supply Assessment prepared by Eastern Municipal Water District (*Technical Appendix K* to this EIR) was utilized to estimate the indoor and outdoor water use as well as the amount of reclaimed water. It was assumed that the difference between the potable water supply and the amount of waste water represented the potable outdoor water supply. The Project is estimated to result in a demand for approximately 46,851 gallons of potable water per day (or approximately 52.5 acre-feet per year). The Project is estimated to result in an average daily demand of 113,696 gallons per day of wastewater treatment capacity. Model defaults were utilized for all other analysis parameters (Urban Crossroads 2011b 40).

- *Solid Waste*

The Project would result in the generation and disposal of solid waste. A large percentage of this waste will be diverted from landfills by a variety of means, through adherence to mandatory requirements for reducing the amount of waste generated, recycling, and/or composting. Waste not diverted would be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. Using solid waste generation rates for light industrial/warehouse uses reported by CalRecycle, GHG emissions associated with the disposal of solid waste associated with the proposed Project were calculated by the CalEEMod model. For all other parameters, the model defaults were utilized (Urban Crossroads 2011b 41).

- *Mobile Source Emissions*

GHG emissions would also result from mobile sources associated with the Project, including daily operation of motor vehicles by visitors, employees, and customers.

Trip characteristics available from the report, *March Business Center Traffic Impact Analysis* (*Technical Appendix J* to this EIR) were utilized in the GHG analysis. It should be noted that the Project's traffic study presents the total Project vehicle trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at the study area intersections. The PCE trips were not used for the purposes of quantifying GHG emissions; rather, to be more representative of actual emissions, the actual number of passenger cars (including light trucks) and heavy trucks were used in the analysis. The vehicle fleet mix, in terms of actual vehicles, as derived from the traffic study for the Project is comprised of approximately 47.6% passenger cars (1,152 passenger cars) and approximately 52.4% total trucks (1,267 trucks). The total traffic generation in vehicles is 2,419 per day (Urban Crossroads 2011b 40).

It should also be noted that operational emissions evaluation is based on a conservative an analysis year of 2016 (Project buildout). This analysis year was selected because it is the most conservative from an emissions generating standpoint; emissions from vehicles would decrease as the analysis year increases due to implementation of mandatory regulatory requirements and vehicle fleet turnover contained in the EMFAC 2007 model (Urban Crossroads 2011b 40).

A technical deficiency inherent in calculating the projected mobile source vehicle emissions associated with any project is related to the estimation of trip length and vehicle miles traveled (VMT). VMT for a given project is calculated by the total number of vehicle trips the project would generate multiplied by average trip length. This method of estimating VMT for use in calculating vehicle emissions likely results in the over-estimation and double-counting of emissions because for a distribution warehouse business center such as the proposed Project, the land use is likely to attract (divert) existing vehicle trips that are already on the circulation system as opposed to generating new trips. As such, the proposed Project would merely redistribute existing mobile emissions. Accordingly, the use of models that measure overall emissions can overstate emission levels without acknowledging that some level of emissions associated with the project under study would still occur in the region regardless of whether the Project is built. As such, the estimation of GHG emissions associated with the proposed Project and disclosed herein assumes a VMT value that very likely overestimates the actual impact of the Project (Urban Crossroads 2011b 41).

In the last five (5) years, the SCAQMD has provided numerous comments on the trip length for warehouse/distribution and industrial land use projects. The SCAQMD asserts that the model-default trip length in CalEEMod™ and the URBan EMISsions (URBEMIS) 2007 model (version 9.2.4) would underestimate emissions. The SCAQMD asserts that for warehouse/distribution center and industrial land use projects, most of the heavy-duty trucks would be hauling consumer goods, often from the Ports of Long Beach and Los Angeles (POLA and POLB) and/or to destinations outside of California. The SCAQMD states that for this reason, the model default trip length (approximately 12.6 miles) would not be representative of activities at like facilities. The SCAQMD generally recommends the use of a 40-mile one-way trip length (Urban Crossroads 2011b 41). In addition, SCAG maintains a regional transportation model. In its most recent (2008) transportation validation for the 2003 Regional Model, SCAG indicates the average internal truck trip length for the SCAG region (which includes the proposed Project site) is 5.92 miles for Light Duty Trucks, 13.06 miles for Medium Duty Trucks, and 24.11 miles for Heavy Duty Trucks (Urban Crossroads 2011b 42). To maintain consistency with the analysis approach utilized for other EIR projects within the City of Moreno Valley and in order to provide for the most conservative analysis scenario, the following approach has been utilized in calculating emissions associated with vehicles accessing the proposed Project.

For passenger car trips, a one-way trip length of 17 miles was assumed as contained in the SCAQMD CEQA Handbook for Riverside County for the year 2010 (this trip length was used in lieu of the CalEEMod™ model defaults because it is a longer trip length). For heavy duty trucks, an average trip length was derived from distances from the Project site to the far edges of the South Coast Air Basin (SCAB) as follows. It is appropriate to stop the VMT calculation at the boundary of the SCAB because any activity beyond that boundary would be speculative, and because the selected approach is consistent with professional industry practice (Urban Crossroads 2011b 42-43).

- Project site to the Port of Los Angeles/Long Beach: 78 miles;
- Project site to Banning Pass: 27 miles;

- Project site to San Diego County line: 46 miles;
- Project site to Cajon Pass: 42 miles;
- Project site to downtown Los Angeles: 64 miles.

Assuming that 50% of all delivery trips will travel to and from the Project and the Port of Los Angeles/Long Beach, and the remainder as distribution trips to all other locations, the average truck trip length is calculated as 61 miles. An overall weighted-average trip length for the Project was calculated using the percentage of trips associated with passenger cars (including light duty trucks) versus heavy trucks, the passenger car trip length of 17 miles and truck trip length of 61 miles was utilized. The resulting weighted average trip length of 40.52 miles was entered into the CalEEMod™ model calculations (Urban Crossroads 2011b 43).

For analysis purposes heavy truck trips include all light HD trucks through heavy HD trucks (Vehicle classes 5-8). The percentages have been apportioned according to data provided in a 1985 CARB document for converting number of axles to vehicle class. The passenger cars include light duty auto through medium duty trucks (vehicle classes 1-4), proportional to the default CalEEMod distribution for the SCAQMD (Urban Crossroads 2011b 43). For more information, tables calculating percentage of trips by vehicle class are shown in *Technical Appendix F*.

Threshold 1: ***Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***

Threshold 2: ***Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?***

A summary of the proposed Project's projected annual operational GHG emissions, including the amortized construction emissions, is provided in Table 4.6-5, *Total Annual Project Greenhouse Gas Emissions*. The operational GHG emissions for the Project, including the amortized construction emissions, are estimated to be 36,547.50 MT per year (Urban Crossroads 2011b 44).

As indicated in §15064(b) of the State CEQA Guidelines, the determination of significance of greenhouse gases is not "ironclad;" rather, the "determination of whether a project may have a significant effect on the environment calls for a "careful judgment" by the City "based to the extent possible on scientific and factual data." The City of Moreno Valley has not adopted a numeric threshold of significance for emissions of greenhouse gases.

Table 4.6-5 Total Annual Project Greenhouse Gas Emissions

EMISSION SOURCE	EMISSIONS (METRIC TONS PER YEAR)			
	CO_2	CH_4 (CO_2E)	N_2O(CO_2E)	Total CO_2E
Annual construction-related emissions amortized over 30 years	85.45	0.16	--	85.61
Energy	1,473.47	1.26	9.3	1,482.67
Mobile Sources	33,061.49	14.49	--	33,076.05
Waste	777.96	965.58	--	1,743.46
Water Usage	143.80	11.13	6.2	159.68
Total CO_2e (All Sources)	**36,547.50**			

Source: Urban Crossroads 2011b, Table 3-4.

As previously noted, CARB does not have an adopted numerical threshold of significance for projects like the proposed March Business Center. Further, CARB's current proposal sets forth draft thresholds for industrial projects that have high operational stationary GHG emissions, such as manufacturing plants or uses that utilize combustion engines, and does not address mobile source emissions. Similarly, the SCAQMD thresholds are currently in draft form and are not adopted. Nevertheless, comparison of the GHG emissions from the Project's area sources (construction, energy, waste, and water usage) indicates that the Project's emissions from such sources would be well below the proposed CARB and SCAQMD thresholds for stationary sources. With regard to GHG emissions from mobile sources, as discussed above, the estimation of the Project's impact on mobile source GHG emissions is highly speculative, because the methodology to quantify mobile source GHG emissions assumes that all of the vehicle trips to and from the Project site would be new, rather than redistributed vehicle trips from other areas. No methods or models exist to estimate the Project's net contribution to regional or global vehicle miles traveled. Because the estimation of the Project's contribution to mobile source GHG emissions is highly speculative, and based on the absence of applicable thresholds for mobile source GHG emissions, use of a quantitative threshold of significance is not meaningful. Accordingly, a qualitative analysis is used to determine significance, based on consistency with regional and state GHG plans.

As previously indicated and consistent with past practice in the City of Moreno Valley, the significance of the Project's GCC impacts is based upon whether or not the Project can demonstrate compliance with the CARB Scoping Plan and the State of California's Climate Action Team Report (2006). The analysis below sets out the factual basis for the City's determination regarding the effect of Project-related greenhouse gases. The analysis is specific to this Project, and may not necessarily apply to other projects within the City of Moreno Valley.

❑ Consistency with the CARB Scoping Plan

AB 32 requires California to reduce its GHG emissions to 1990 levels by the Year 2020, which correlates to an approximate reduction of 29% below business as usual. CARB identified reduction measures to achieve this goal as set forth in the CARB Scoping Plan. Thus, projects that are consistent with the CARB Scoping Plan are also consistent with AB 32's mandate to reduce GHG emissions.

The proposed Project would generate GHG emissions from a variety of sources which would all emit CO_2, CH_4 and N_2O. GHGs could also be indirectly generated by incremental electricity consumption and waste generation from the proposed Project. Table 4.6-6, *Recommended Actions for Climate Change Scoping Plan*, presents the 39 Recommended Actions (qualitative measures) identified to date by CARB in its Climate Change Proposed Scoping Plan. Of the 39 measures identified, those that would be considered to be applicable to the Project would primarily be those actions related to transportation, electricity and natural gas use, green building design and industrial uses. Consistency of the Project with these measures is evaluated by each source-type measure below. Table 4.6-6 identifies which CARB Recommended Actions applies to the Project, and of those, whether the Project is consistent therewith. A discussion of how the Project is consistent with each applicable CARB Recommended Action also is provided.

- *Transportation*

CARB's Scoping Plan identifies nine transportation-related recommended actions. Action T-1 concerns improvements to light-duty vehicle technology for the purposes of reducing GHG

emissions. This action focuses on legislating improved controls for vehicle manufacturers and would not generally be considered applicable to the proposed Project. Implementation of the Pavley standards is dependent on implementation by the State on vehicle fuel economy standards. Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with measures concerning the Pavley standards.

Action T-2 concerns implementation of a low carbon fuel standard. To reduce the carbon intensity of transportation fuels, CARB is developing a Low Carbon Fuel Standard (LCFS), which would reduce the carbon intensity of California's transportation fuels by at least 10% by 2020 as called for by Governor Schwarzenegger in Executive Order S-01-07. LCFS will incorporate compliance mechanisms that provide flexibility to fuel providers in how they meet the requirements to reduce greenhouse gas emissions. Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with measures concerning the use of low carbon fuels.

Action T-3 addressees regional transportation targets for reducing GHG emissions. SB 375 requires CARB to develop, in consultation with metropolitan planning organizations (MPOs), passenger vehicle greenhouse gas emissions reduction targets for 2020 and 2035. It sets forth a collaborative process to establish these targets, including the appointment by CARB of a Regional Targets Advisory Committee to recommend factors to be considered and methodologies for setting greenhouse gas emissions reduction targets. SB 375 also provides incentives – relief from certain CEQA requirements for development projects that are consistent with regional plans that achieve the targets. Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with measures concerning SB375.

Action T-4 is concerned with vehicle efficiency measures. The California Integrated Waste Management Board (CIWMB) with various partners continues to conduct a public awareness campaign to promote sustainable tire practices. CARB is pursuing a regulation to ensure that tires are properly inflated when vehicles are serviced. In addition, CEC in consultation with CIWMB is developing an efficient tire program focusing first on data gathering and outreach, then on potential adoption of minimum fuel-efficient tire standards, and lastly on the development of consumer information requirements for replacing tires. CARB is also pursuing ways to reduce engine load via lower friction oil and reducing the need for air conditioner use. CARB is actively engaged in the regulatory development process for the tire inflation component of this measure. Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with applicable measures.

Table 4.6-6 Recommended Actions for Climate Change Scoping Plan

ID #	SECTOR	STRATEGY NAME	APPLICABLE TO PROJECT?	WILL PROJECT CONFLICT WITH IMPLEMENTATION?
T-1	Transportation	Pavley I and II – Light-Duty Vehicle GHG Standards	NO	NO
T-2	Transportation	Low Carbon Fuel Standard (Discrete Early Action)	NO	NO
T-3	Transportation	Regional Transportation-Related GHG Targets	NO	NO
T-4	Transportation	Vehicle Efficiency Measures	NO	NO
T-5	Transportation	Ship Electrification at Ports (Discrete Early Action)	NO	NO
T-6	Transportation	Goods-movement Efficiency Measures	NO	NO
T-7	Transportation	Heavy Duty Vehicle Greenhouse Gas Emission Reduction Measure – Aerodynamic Efficiency (Discrete Early Action)	NO	NO
T-8	Transportation	Medium and Heavy-Duty Vehicle Hybridization	NO	NO
T-9	Transportation	High Speed Rail	NO	NO
E-1	Electricity and Natural Gas	Increased Utility Energy efficiency programs More stringent Building and Appliance Standards	YES	NO
E-2	Electricity and Natural Gas	Increase Combined Heat and Power Use by 30,000GWh	NO	NO
E-3	Electricity and Natural Gas	Renewable Portfolio Standard	NO	NO
E-4	Electricity and Natural Gas	Million Solar Roofs	YES	NO
CR-1	Electricity and Natural Gas	Energy Efficiency	YES	NO
CR-2	Electricity and Natural Gas	Solar Water Heating	NO	NO
GB-1	Green Buildings	Green Buildings	YES	NO
W-1	Water	Water Use Efficiency	YES	NO
W-2	Water	Water Recycling	NO	NO
W-3	Water	Water System Energy Efficiency	YES	NO
W-4	Water	Reuse Urban Runoff	NO	NO
W-5	Water	Increase Renewable Energy Production	NO	NO
W-6	Water	Public Goods Charge (Water)	NO	NO
I-1	Industry	Energy Efficiency and Co-benefits Audits for Large Industrial Sources	YES	NO
I-2	Industry	Oil and Gas Extraction GHG Emission Reduction	NO	NO
I-3	Industry	GHG Leak Reduction from Oil and Gas Transmission	NO	NO
I-4	Industry	Refinery Flare Recovery Process Improvements	NO	NO
I-5	Industry	Removal of Methane Exemption from Existing Refinery Regulations	NO	NO
RW-1	Recycling and Waste Management	Landfill Methane Control (Discrete Early Action)	NO	NO
RW-2	Recycling and Waste Management	Additional Reductions in Landfill Methane – Capture Improvements	NO	NO
RW-3	Recycling and Waste Management	High Recycling/Zero Waste	NO	NO
F-1	Forestry	Sustainable Forest Target	NO	NO
H-1	High Global Warming Potential Gases	Motor Vehicle Air Conditioning Systems (Discrete Early Action)	NO	NO
H-2	High Global Warming Potential Gases	SF_6 Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)	NO	NO
H-3	High Global Warming Potential Gases	Reduction in Perflourocarbons in Semiconductor Manufacturing (Discrete Early Action)	NO	NO
H-4	High Global Warming Potential Gases	Limit High GWP Use in Consumer Products (Discrete Early Action, Adopted June 2008)	NO	NO
H-5	High Global Warming Potential Gases	High GWP Reductions from Mobile Sources	NO	NO
H-6	High Global Warming Potential Gases	High GWP Reductions from Stationary Sources	NO	NO
H-7	High Global Warming Potential Gases	Mitigation Fee on High GWP Gases	NO	NO
A-1	Agriculture	Methane Capture at Large Dairies	NO	NO

Source: Urban Crossroads 2011b, Table 3-5.

Action T-5 addresses electrification of ships at ports and is not applicable to the proposed Project. Therefore, the proposed Project would not conflict with this measure.

Action T-6 also primarily addresses port operations and is not applicable to the proposed Project. Therefore, the proposed Project would not conflict with this measure.

Action T-7 requires existing trucks/trailers to be retrofitted with the best available technology and/or CARB-approved technology. Implementation of such a standard is not within the purview of the proposed Project since various trucks fleets from numerous commercial entities may access the site. Therefore, the proposed Project would not conflict with this measure.

Action T-8 focuses on hybridization of medium- and heavy-duty vehicles. The implementation approach to Action T-8 is to adopt a regulation and/or incentive program that reduces GHG emissions by encouraging hybrid technology as applied to vocational applications that have significant urban, stop-and-go driving, idling, and power take-off operations in their duty cycle. Such applications include parcel delivery trucks and vans. Implementation of such a standard is not within the purview of the proposed Project since various trucks fleets from numerous commercial entities may access the site. Therefore, the proposed Project would not conflict with this measure.

Action T-9 concerns implementation of a high speed rail system. A high speed rail (HSR) system is part of the state-wide strategy to provide more mobility choice and reduce greenhouse gas emissions. This measure supports implementation of plans to construct and operate a HSR system between northern and southern California. As planned, the HSR is a 700-mile-long rail system capable of speeds in excess of 200 miles per hour on dedicated, fully-grade separated tracks with state-of-the-art safety, signaling and automated rail control systems. The system would serve the major metropolitan centers of California in 2030 and is projected to displace between 86 and 117 million riders from other travel modes in 2030. The proposed Project would not conflict with implementation of a HSR system.

- *Electricity and Natural Gas*

Action E-1/CR-1, together with Action GB-1 (Green Building), aims to reduce electricity demand by increased efficiency of Utility Energy Programs and adoption of more stringent building and appliance standards. The primary focus on GHG reduction in the real estate sector is through the implementation of green building measures, including principally LEED standards. To reduce the Project's energy needs and fossil fuel consumption, and thereby reduce GHG emissions, the Project Applicant has committed to achieve certification of the March Business Center Project under the U.S. Green Building Council's LEED program. Following final building inspection, the Project Applicant will seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute. Because the design features are not yet selected, and cannot be precisely determined until tenants are identified and interior space design occurs, it is not possible to calculate the GHG emission reductions associated with LEED Silver design features at this time. The proposed Project would incorporate energy efficient measures in its site and building designs, would achieve LEED Silver, and would comply with these Climate Change Scoping Plan Actions

Action E-2 encourages an increase in the use of combined heat and power (CHP) use, or co-generation, facilities. California has supported CHP for many years, but market and other barriers continue to keep CHP from reaching its full market potential. Increasing the deployment of efficient CHP will require a multi-pronged approach that includes addressing significant barriers and

instituting incentives or mandates where appropriate. Implementation of such a standard is not within the purview of the proposed Project; therefore, the proposed Project would not conflict with this measure.

Action E-3 concerns Renewable Portfolio Standards for utilities and does not apply to development projects; therefore, the proposed Project would not conflict with the recommended measure.

Action E-4 strives to promote solar generated electricity. Because all buildings would be designed to accommodate renewable energy sources, such as photovoltaic solar electricity systems, appropriate to their architectural design, the proposed Project would not conflict with the recommended measure.

Action CR-2 strives to promote solar water heaters (SWH). CARB recommends that California pursue approaches with the goal of developing a viable SWH industry for 2020 and beyond. Implementation of such a standard is not within the purview of the proposed Project; therefore, the proposed Project would not conflict with this measure.

- *Water Use*

Implementation of all but two of the Recommended Actions related to water use are not within the purview of the proposed Project. The two measures that apply are measures W-1 (Water Use Efficiency) and W-3 (Water System Energy Efficiency). The landscape design of the proposed Project would feature water-efficient plant materials and a water-efficient automatic irrigation system (as previously described in Subsection 3.3.3.D, *Conceptual Landscape Plan*). Accordingly, the proposed Project would provide for water-efficient development and would not conflict with the implementation of Scoping Plan Actions W-1 and W-3.

- *Industrial Use*

All but one of the Recommended Actions related to industrial use are specific to oil and gas extraction, refining and transmission, and are not applicable to the proposed Project. The remaining Action, Action I-1, recommends energy efficiency and co-benefits audits for large emitters of GHGs (i.e., uses that produce in excess of 0.5 $MMTCO_2E$ per year). The proposed Project would not generate in excess of 0.5 $MMTCO_2e$ per year and would not be subject to energy efficiency audits. Therefore, the proposed Project would not conflict with any of the Industrial Use Action Items of the Scoping Plan.

❑ Consistency with GHG Emission Reduction Strategies Set Forth in the 2006 CAT Report

Table 4.6-7, *Project Compliance with Applicable 2006 CAT Report Greenhouse Gas Emissions Reduction Strategies*, summarizes the emission reduction strategies set forth in the 2006 CAT Report along with an explanation as to how the Project is consistent therewith. Table 4.6-7 also notes whether the strategy is applicable to the Project:

Although implementation of the CAT strategies would reduce GHG emissions to the extent possible, it is not possible to specifically quantify the reduction in GHG that will result from implementation of CAT strategies and programs. However, a project that is consistent with CAT strategies is consistent with the strategies suggested to reduce California's emissions to the levels proposed by Executive Order S-3-05 and AB 32.

Table 4.6-7 Project Compliance with Applicable 2006 CAT Report Greenhouse Gas Emissions Reduction Strategies

STRATEGY	PROJECT COMPLIANCE
California Air Resource Board	
Vehicle Climate Change Standards AB 1493 (Pavley) required the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by CARB in September 2004.	Not Applicable.
Other Light Duty Vehicle Technology New standards would be adopted to phase in beginning in the 2017 model.	
Heavy-Duty Vehicle Emission Reduction Measures Increased efficiency in the design of heavy-duty vehicles and an education program for the heavy-duty vehicle sector.	
Diesel Anti-Idling In July 2004, the CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.	Compliant. Heavy-duty diesel trucks that access the project site would be required to limit idling to no more than five minutes.
Hydrofluorocarbon Reduction 1) Ban retail sale of HFC in small cans; 2) Require that only low GWP refrigerants be used in new vehicular systems; 3) Adopt specifications for new commercial refrigeration; 4) Add refrigerant leak-tightness to the pass criteria for vehicular Inspection and Maintenance programs; 5) Enforce federal ban on releasing HFCs.	Not Applicable.
Transportation Refrigeration Units (TRUs), Off-Road Electrification, Port Electrification Strategies to reduce emissions from TRUs, increase off-road electrification, and increase use of shore-side/port electrification.	Not Applicable. The Project uses will be unrefrigerated and therefore TRUs would not be accessing the site.
Alternative Fuels: Biodiesel Blends CARB would develop regulations to require the use of 1% to 4% biodiesel displacement of California diesel fuel.	Not Applicable.
Reduced Venting and Leaks in Oil and Gas Systems Rule considered for adoption by the Air Pollution Control Districts for improved management practices.	Not Applicable.
Hydrogen Highway The California Hydrogen Highway Network (CA H_2 Net) is a State initiative to promote the use of hydrogen as a means of diversifying the sources of transportation energy.	Not Applicable.
Integrated Waste Management Board	
Achieve 50% Statewide Recycling Goal Achieving the State's 50% waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills. A diversion rate of 48% has been achieved on a statewide basis. Therefore, a 2% additional reduction is needed.	Compliant. Project design includes provisions for tenants to recycle. In accordance with the California Solid Waste Reuse and Recycling Act of 1991 (Cal Pub Res. Code § 42911), the Project would provide adequate areas for collecting and loading recyclable materials where solid waste is collected. Per City of Moreno Valley requirements, the collection areas are required to be shown on construction drawings and be in place before occupancy permits are issued.
Zero Waste - High Recycling Additional recycling beyond the State's 50% recycling goal.	
Department of Forestry	
Forest Management Strategies for storing more carbon through forest	Not applicable.

Table 4.6-7 Project Compliance with Applicable 2006 CAT Report Greenhouse Gas Emissions Reduction Strategies

STRATEGY	PROJECT COMPLIANCE
management activities can involve a range of management activities such as increasing either the growth of individual trees, the overall age of trees prior to harvest, or dedicating land to older age trees.	
Forest Conservation Conservation projects are designed to minimize/prevent the climate change emissions that are associated with the conversion of forestland to non-forest uses by adding incentives to maintain an undeveloped forest landscape.	Not applicable.
Fuels Management/Biomass Large, episodic, unnaturally hot fires are an increasing trend on California's wild lands because of decades of fire suppression activities, sustained drought, and increasing insect, disease, and invasive plans infestations. Actions taken to reduce wildfire severity through fuel reduction and biomass development would reduce climate change emissions from wildfire, increase carbon sequestration, replace fossil fuels, and provide significant economic development opportunities.	Not applicable.
Urban Forestry A new statewide goal of planting 5 million trees in urban areas by 2020 would be achieved through the expansion of local urban forestry programs.	Compliant. The implementation of the proposed Project will result in the planting of additional trees and vegetation at the project site.
Afforestation/Reforestation Projects Reforestation projects focus on restoring native tree cover on lands that were previously forested and are now covered with other vegetative types.	Not applicable.
Department of Water Resources	
Water Use Efficiency Approximately 19% of all electricity, 30% of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions.	Compliant. The Project would implement U.S. EPA Certified WaterSense labeled or equivalent faucets and high-efficiency toilets (HETs), and implement water-conserving shower heads to the extent feasible.
California Energy Commission (CEC)	
Building Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings).	Compliant. Project would be compliant with the California Code of Regulations, Title 24 (Energy Efficiency Standards for Residential and Nonresidential Buildings) as in effect at the time of Project construction.
Appliance Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California).	Compliant. Appliances purchased for use in the Project would be consistent with all applicable energy efficiency standards.
Fuel-Efficient Replacement Tires & Inflation Programs State legislation (Chapter 912, Statues of 2001) directed the Energy Commission to investigate and to recommend ways to improve fuel efficiency of vehicle tires. The bill established a statewide program to encourage the production and use of more fuel efficient tires.	Not Applicable.

Table 4.6-7 Project Compliance with Applicable 2006 CAT Report Greenhouse Gas Emissions Reduction Strategies

STRATEGY	PROJECT COMPLIANCE
Cement Manufacturing Cost-effective reductions to reduce energy consumption and to lower carbon dioxide emissions in the cement industry.	Not Applicable.
Municipal Utility Strategies Includes energy efficiency programs, renewable portfolio standard, combined heat and power, and transitioning away from carbon-intensive generation.	Not Applicable.
Alternative Fuels: non-Petroleum Fuels Increasing the use of non-petroleum fuels in California's transportation sector, as recommended in the CEC's 2003 and 2005 Integrated Energy Policy Reports.	Not Applicable.
Business Transportation and Housing	
Smart Land Use and Intelligent Transportation Systems (ITS) Smart land use strategies encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors. ITS is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods and services. Governor Schwarzenegger is finalizing a comprehensive 10-year strategic growth plan with the intent of developing ways to promote, through state investments, incentives and technical assistance, land use, and technology strategies that provide for a prosperous economy, social equity, and a quality environment.	Compliant. The proposed Project would place development in close proximity to a transportation corridor and near homes which can limit worker commute trips.
Measures to Improve Transportation Energy Efficiency Builds on current efforts to provide a framework for expanded and new initiatives including incentives, tools and information that advance cleaner transportation and reduce climate change emissions.	Compliant. The proposed Project promotes fuel conservation through design features, which encourage employee carpooling and public transportation use. Easements for future bus stops are shown on the Project's Tentative Parcel Map.
Department of Food and Agriculture	
Conservation tillage/cover crops Conservation tillage and cover crops practices are increasingly being used by California farmers for a variety of reasons, including improved soil tilth, improved water use efficiency, reduced tillage requirements, saving labor and fuel, and reduced fertilizer inputs.	Not Applicable.
Enteric Fermentation Cattle emit methane from digestion processes. Changes in diet could result in a reduction in emissions.	Not Applicable.
State and Consumer Services Agency	Not Applicable.
Green Buildings Initiative Green Building Executive Order, S-20-04 (CA 2004), sets a goal of reducing energy use in public and private buildings by 20% by the year 2015, as compared with 2003 levels.	Compliant. By qualifying for LEED Silver certification, the Project is expected to reduce energy use compared to business as usual (e.g., 2005 Title 24 Standards). Additionally, the Project is required to comply with the mandatory provisions of the California Green Building Standards Code (CALGreen) pursuant to the California Code of Regulations, Title 24, which became effective on January 1, 2011.
Public Utilities Commission (PUC)	
Accelerated Renewable Portfolio Standard The Governor has set a goal of achieving 33% renewables in	Not Applicable.

Table 4.6-7 Project Compliance with Applicable 2006 CAT Report Greenhouse Gas Emissions Reduction Strategies

STRATEGY	PROJECT COMPLIANCE
the State's resource mix by 2020. The joint PUC/Energy Commission September 2005 Energy Action Plan II (EAP II) adopts the 33% goal.	
California Solar Initiative Installation of 1 million solar roofs or an equivalent 3,000 MW by 2017 on homes and businesses; increased use of solar thermal systems to offset the increasing demand for natural gas; use of advanced metering in solar applications; and creation of a funding source that can provide rebates over 10 years through a declining incentive schedule.	Compliant. By qualifying for LEED Silver certification, the Project is anticipated to accommodate renewable energy sources, such as photovoltaic solar energy systems, as is economically and physically feasible.
Investor-Owned Utility This strategy includes energy efficiency programs, combined heat and power initiative, and electricity sector carbon policy for investor owned utility.	Not Applicable.

Source: Urban Crossroads 2011b, Table 3-6.

B. Level of Significance Prior to Mitigation

As indicated previously in EIR Subsection 4.6.2, neither the City of Moreno Valley nor the SCAQMD have adopted a threshold of significance for determining the cumulative significance of a Project's GHG emissions on global climate change. In the absence of a quantitative threshold of significance, and for purposes of analysis within this section, the applicable threshold of significance is whether or not the Project would be consistent with the CARB Scoping Plan and the 2006 CAT Report.

Based on the analysis provided above, the Project would generate GHG emissions amounting to approximately 36,547.50 MT per year (of which 33,076.05 MT are based on the speculative estimate of mobile source emissions (refer to Table 4.6-5)). However, and as indicated in Table 4.6-6 and Table 4.6-7, the Project is consistent with, or otherwise would not conflict with, the CARB Scoping Plan recommended measures and actions and the GHG emission reduction strategies set forth in the 2006 CAT Report.

Because the proposed Project would be consistent with both the CARB Scoping Plan and the 2006 CAT Report, Project-related GHG emissions would not be substantial and would not directly or indirectly result in a significant impact on the environment. This conclusion reflects a conservative analysis of Project-related impacts as the analysis presented previously in this subsection does not credit the Project for a reduction of GHG emissions that would result from implementation of Project design features. Therefore, the proposed Project would not result in a significant impact to the environment as a result of Project-related GHG emissions.

In addition, there are currently no plans, policies, or regulations that are applicable to the proposed Project and that have been adopted for the purpose of reducing the emissions of greenhouse gases. Although there are no applicable plans, policies, or regulations that are applicable to the proposed Project, the Project would nonetheless be consistent with the CARB Scoping Plan and the 2006 CAT Report strategies for reducing GHG emissions. Therefore, the proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases, and a significant impact would not occur.

4.6.4 CUMULATIVE IMPACT ANALYSIS

Global Climate Change occurs as the result of global emissions of GHGs. An individual project proposal does not have the potential to result in significant GCC-related effects in the absence of cumulative sources of GHGs. The CEQA Guidelines also emphasize that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (See CEQA Guidelines §15130[f]).

Accordingly, the Project-specific impact analysis provided in EIR Subsection 4.6.3 reflects a cumulative impact analysis of the Project's GHG emissions, and concludes that since the proposed Project would comply with all applicable GHG-reduction strategies set forth by the CARB Scoping Plan and 2006 CAT Report, the proposed Project's GHG emissions would not be cumulatively considerable. In addition, the analysis in EIR Subsection 4.6.3 demonstrates that the proposed Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHGs. Therefore, Project-related emissions of GHGs would be less than significant on both a direct and cumulative basis.

4.6.5 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Compliance with these measures was assumed throughout the above analysis of effects associated with Project-related GHG emissions.

PR 4.6-1 The Project is required to comply with mandatory regulatory requirements imposed by the State of California and the South Coast Air Quality Management District aimed at the reduction of air quality emissions. Those that are applicable to the Project and that would assist in the reduction of Project-related GHG emissions include, but are not limited to the following:

a) Global Warming Solutions Act of 2006 (AB32).

b) Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (SB 375).

c) California Code of Regulations Title 13, Division 3 addressing diesel exhaust emissions. Specifically, Chapter 1, Article 4.5, §2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles" and Chapter 10, Article 1, §2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling."

d) California Code of Regulations Title 24 (California Building Code), which establishes energy efficiency requirements for new construction.

e) California Code of Regulations Title 20 (Appliance Energy Efficiency Standards), which establishes energy efficiency requirements for appliances.

f) South Coast Air Quality Management District Rule 1118 "PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations," and Rule 1186.1 "Less Polluting Street Sweepers."

PR 4.6-2 Prior to the issuance of building permits, the Building and Safety Division shall ensure that the project plans provide for on-site bicycle storage, pursuant to City of Moreno Valley Municipal Code §9.11.060.B, *Off-street bicycle parking requirements*. This requirement encourages non-vehicular transportation thereby potentially reducing mobile source emissions.

4.6.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Thresholds 1 and 2: Less than Significant Impact. The proposed Project would have a less than significant direct impact on global climate change and the Project's contribution of greenhouse gas emissions would be less than cumulatively considerable. The Project complies with all applicable CARB Scoping Plan and 2006 CAT Report GHG reduction measures. There are no other applicable plans, policies, or regulations that have been adopted for the purpose of reducing the Project's emissions of greenhouse gases.

4.6.7 MITIGATION MEASURES

Although Project-related GHG emissions are evaluated as less than significant on both a direct and cumulative basis, the following measures are recommended to ensure that Project-related emissions of GHGs are reduced to the maximum practical extent. Additionally, Mitigation Measures MM 4.2-1 through MM 4.2-6 in Subsection 4.2, Air Quality, and Project Requirement PR 4.11-10 in Subsection 4.11, Transportation/ Traffic, also reduce greenhouse gas emissions.

MM 4.6-1 The Project's construction drawings shall be designed to achieve certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program. Prior to issuance of a building permit, the applicant shall provide a letter from a qualified LEED consultant verifying that proposed building design features are adequate to seek LEED certification. Following final building inspection, the Project Applicant shall seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute.

MM 4.6-2 Prior to the issuance of grading and building permits, the Planning Division and the Land Development Division shall review grading plans and building plans to ensure that the following notes are specified:

> "With the exception of equipment used for asphalt paving, trenching, and off-site improvements, all diesel-powered construction equipment shall use B20 biodiesel fuel (comprising a minimum of 20% biodiesel) for the duration of construction activities. Any construction equipment whose warranty would be voided upon the use of B20 biodiesel fuel shall be exempt from this requirement. The Building and Safety Division may exempt additional pieces of equipment from this requirement upon written request from the Project applicant documenting a valid technical, economic, or physical reason why the use of B20 biodiesel fuel cannot be used. This requirement shall only

apply if B20 biodiesel fuel is available within 15 roadway miles from the Project site at the time construction activities commence."

"During Project construction, existing electrical power sources (e.g., power poles) shall be provided for electric construction tools including saws, drills and compressors, to minimize the need for diesel or gasoline powered electric generators."

MM 4.6-3 Prior to the approval of building permits, the Planning Division shall review landscaping plans to ensure that the following components are included:

a) Landscaping palette emphasizing drought tolerant plants; and

b) Use of water-efficient irrigation techniques.

MM 4.6-4 The Project's mechanical/electrical/plumbing (MEP) plans shall specify U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads (if showers are proposed). Prior to the approval of building permits, the Building and Safety Division shall review the plans to ensure that these features are specified, as appropriate.

MM 4.6-5 Prior to the issuance of building permits, the Project applicant shall submit energy usage calculations to the Planning Division showing that the Project is designed to achieve 8% efficiency beyond the 2008 California Building Code Title 24 requirements. Example of measures that reduce energy consumption include, but are not limited to, the following (it being understood that the items listed below are not all required and merely present examples; the list is not all-inclusive and other features that reduce energy consumption also are acceptable):

a) Increase in insulation such that heat transfer and thermal bridging is minimized;

b) Limit air leakage through the structure and/or within the heating and cooling distribution system;

c) Use of energy-efficient space heating and cooling equipment;

d) Installation of electrical hook-ups at loading dock areas;

e) Installation of dual-paned or other energy efficient windows;

f) Use of interior and exterior energy efficient lighting that exceeds the 2008 California Title 24 Energy Efficiency performance standards;

g) Installation of automatic devices to turn off lights where they are not needed;

h) To the extent they are compatible with Moreno Valley Municipal Code §9.17.030, *Landscape and Irrigation Design Standards*, the incorporation of shade-producing trees, particularly those that shade buildings and paved surfaces such as streets and parking lots;

i) Application of a paint and surface color palette that emphasizes light and off-white colors that reflect heat away from buildings;

j) Design of buildings with "cool roofs" using products certified by the Cool Roof Rating Council, and/or exposed roof surfaces using light and off-white colors;

k) Design of buildings to accommodate photo-voltaic solar electricity systems or the installation of photo-voltaic solar electricity systems;

l) Installation of ENERGY STAR-qualified energy-efficient appliances, heating and cooling systems, office equipment, and/or lighting products; and/or

m) Other measures incorporated as part of the LEED Certification process.

MM 4.6-6 Prior to the approval of street improvement plans, the Transportation Engineering Division shall ensure that all traffic lights installed as part of the Project will utilize Light Emitting Diodes.

MM 4.6-7 The Project shall comply with the following requirements to reduce the generation of solid waste during construction and under long-term operating conditions:

a) Prior to the issuance of grading permits, a Waste Management Plan (WMP) addressing construction activity wastes shall be prepared by the Project Applicant and submitted to the Public Works Department and Building and Safety Division for review and approval. The WRP must conform to City requirements specified in Municipal Code Section 8.80.030, which requires that at least 50 percent of all construction and demolition debris be reused, recycled, or otherwise diverted from disposal in a landfill. During grading and construction, the Project Applicant shall recycle and reuse the required percentage of materials, and keep records of the tonnage or other measurements approved by the City that can be converted to tonnage amounts. Prior to issuance of an occupancy permit, the Project Applicant shall provide evidence (i.e., receipts, weight tags, or other type of acceptable verifications) to the Public Works Department to demonstrate Project compliance with the approved WRP. Evidence must clearly identify the amount of waste disposed and materials recycled.

b) Recycling shall occur during Project operational activities in accordance with all applicable solid waste and recycling requirements of the City of Moreno Valley Public Works Department. Prior to the issuance of building permits, the Building and Safety Division shall review building plans to ensure that the locations and dimensions of recyclable collection enclosures and loading areas are specified on the building plans in conformance with City requirements and City Municipal Code Chapter 6.02 "Refuse Collection, Transfer and Disposal." Prior to the issuance of occupancy permits, the Land Development Division shall conduct a field inspection to ensure that the recyclable collection enclosures and loading areas are in place and ready for use.

MM 4.6-8 Prior to the issuance of building permits, the Planning Division shall review building plans to ensure that a minimum of two (2) parking spaces for each building will be

reserved for carpools and vanpools. Prior to the issuance of occupancy permits, the Planning Division shall conduct a field inspection to ensure that a minimum of two (2) parking spaces for each building are marked as reserved for carpools and vanpools.

MM 4.6-9 Prior to the issuance of building permits for Parcel 1, the Planning Division and Building and Safety Division shall review building plans to ensure that a minimum of two (2) electric vehicle charging stations will be provided. Prior to the issuance of occupancy permits for Parcel 1, the Planning Division and Building and Safety Division shall conduct a field inspection to verify that the electric vehicle charging stations are in place and operable.

MM 4.6-10 Prior to the issuance of occupancy permits, the Project's property owner shall provide documentation to the Planning Division verifying that a provision is included in the building's lease agreement which stipulates that tenants of the building shall encourage carpooling and transit ridership by on-site employees.

4.7 HAZARDS AND HAZARDOUS MATERIALS

The information and analysis presented in this subsection is based in part on two site-specific technical studies that were prepared by SCS Engineers to determine the presence or absence of hazardous materials on the Project site. The first report is titled "Phase I Environmental Assessment, 24015 Iris Avenue" (dated December 2006), and the second report is titled "Addendum to Phase I Environmental Assessment Report for Property Located at 24015 Iris Avenue" (May 12, 2011). These reports are included as *Technical Appendices G1* and *G2* to this EIR, respectively.

This subsection also is based on information contained in the Safety Element of the City of Moreno Valley General Plan (Chapter 6, pp. 6-1 – 6-30), dated July 2006 (Moreno Valley 2006a), and the Hazards section (Section 5.5, pp. 5.5-1 – 5.5-16) of the certified Final Program EIR prepared for the General Plan (SCH No. 2000091075), dated July 2006 (Moreno Valley 2006b). Additionally, information was obtained from the adopted Riverside County Airport Land Use Compatibility Plan (1986) and the proposed update to that plan for March ARB/IPA called the "March ARB/IPA Joint Land Use Study" (March JPA 2010), as well as the "Air Installation Compatible Use Zone Study for March ARB" prepared by the Department of the Air Force in 1005 (Air Force 2005).

4.7.1 EXISTING CONDITIONS

A. Definition of Toxic Substances and Hazardous Waste

For the purposes of this EIR, the term "toxic substance" is defined as a substance which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may present an unreasonable risk of injury to human health or the environment. Toxic substances include chemical, biological, flammable, explosive, and radioactive substances.

"Hazardous material" is defined as a substance which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may: 1) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, disposed of, or otherwise mismanaged; or 2) cause or contribute to an increase in mortality or an increase in irreversible or incapacitating illness. Hazardous waste is defined in the California Code of Regulations, Title 22, Section 66261.3. The characteristics of hazardous waste are Ignitability (66261.21), Corrosivity (66261.22), Reactivity (66261.23), and Toxicity (66261.24). Certain wastes are called "Listed Wastes" and are found in the California Code of Regulations, Title 22, Sections 66261.30 through 66261.35. Wastes appear on the lists because of their known hazardous natures or because the processes that generate them are known to produce hazardous wastes (which are often complex mixtures).

B. Historical Review, Regulatory Records Review, and Field Reconnaissance

❑ Historical Review

SCS Engineers conducted a review of various sources of information to determine the historical use of the Project site, including a review of USGS topographic maps, historical aerial photographs, and a search of the EDR-Sanborn® collection of maps. Please refer to *Technical Appendix G1* of this EIR for a detailed description of the results of this research. Based on this review, SCS Engineers conclude that the northern portion of the Project site was used for dwellings and possibly agriculture as early as 1938. Between 1953 and 1967, the northern half of the Project site was developed with stables and a training center for race horses, complete with a racetrack. Large areas of the Project

site appear to have been used for pasture. By the end of the 1980s, most of the corrals, barns and other buildings on the Project site had been removed. The most recent aerial photograph available from 2010 (refer to Figure 2-4, *Aerial* Photograph) shows the horse track as being overgrown and no longer used. The southern half of the Project site appears to have been either vacant and undeveloped, or used for pasture over its history (SCS Engineers 2006 7-9).

❑ Regulatory Records Review

A database search for sites listed on various federal and state databases within one (1) mile of the Project site was obtained by SCS Engineers from EDR Environmental Information. A detailed description of the results of this review is provided in *Technical Appendix G1* to this EIR. The proposed Project site was not identified in any federal or state databases, indicating the site is not known by the federal or state government to pose any concerns to the environment.

The only site of potential concern within one mile of the Project site is the March ARB, located to the west of Heacock Street and in immediate proximity to the Project site. Ten records of contamination were identified associated with the March ARB, although some sites may be listed on more than one database.

March AFB has been used for aircraft maintenance and repair, refueling operations, and training activities since 1918. Beginning in 1980, efforts began to identify and clean up hazardous waste sites on the base. Eventually, forty-four separate sites within the base were identified as contaminated sites. These included fire training areas, landfills, underground tank installations, an engine test cell, and recorded spills. The identified areas of contamination included three zones of groundwater contamination (SCS Engineers 2006 10-11).

Continued investigations determined that the contamination had migrated off base and impacted private wells down-gradient (i.e., southeast) of the base. Groundwater wells on the base and contaminated wells off base were shut down in the late 1980s. Based on maps included in Appendix D to the Phase I ESA (EIR *Technical Appendix G1*), groundwater beneath the northern edge and southern half of the Project site appears to have been impacted by these plumes. There is no evidence that any activities on the Project site may have contributed to this contamination (SCS Engineers 2006 11).

By the early 1990s, most of the source areas of the contamination on the March ARB had been remediated. A contaminated groundwater interception and treatment system was in operation to remove volatile organic compounds (VOCs) such as TCE and PCE from the groundwater and prevent their further migration off base (SCS Engineers 2006 11).

Remedial efforts are ongoing. The most recent information suggests that attempt to remediate groundwater beneath the base and prevent its continued migration off base have largely been successful. However, no attempt has been made to clean up contaminated groundwater off base. In the absence of continued action from March ARB, this groundwater will eventually be remediated by natural attenuation. However, until natural processes succeed in removing the contaminants, the groundwater beneath the Project site will likely remain contaminated (SCS Engineers 2006 11). Based on the reported depth to groundwater below the Project site (i.e., approximately 44 feet below the ground surface (EMWD 2010)), the prevailing lithology (fine grain sediments), and the opinion

of SCS Engineers, there is no significant potential for vapor intrusion into future buildings on the Project site due to the March ARB plume (SCS Engineers 2006 11).

The EDR database did not identify any landfills within one mile of the Project site. Several landfills once associated with the March ARB are within one mile of the Project site, although these landfills have been excavated and removed to another disposal site beyond one mile from the Project site (SCS Engineers 2006 12).

❑ Field Reconnaissance

An inspection of the proposed Project site and surrounding area was conducted by SCS Engineers on December 20, 2006 (SCS Engineers 2006 1). Appendix B to the Phase I Environmental Site Assessment (EIR *Technical Appendix G1*) includes a sketch map and photographs of the Project site. During the field survey conducted in 2006, SCS Engineers observed one well on the site along the center fence line, approximately 650 feet east of Heacock Street and 1,030 feet south of Iris Avenue (SCS Engineers 2006 5). A subsequent survey by the Project's civil engineer located three (3) additional wells along the perimeter of the Project site (adjacent to the eastern, southeastern and southwestern boundaries of the Project site). These wells are used by the Department of the Air Force to monitor groundwater contamination levels resulting from historical contamination at the March ARB facility. During the 2006 field survey, SCS Engineers also observed an unidentified monument cover along Heacock Street, just to the south of the Perris Valley Storm Drain Channel (SCS Engineers 2006 5).

SCS Engineers also identified a small single-story dwelling in the north-central portion of the Project site, which was identified as having the potential to contain asbestos since the structure was constructed prior to 1938, when use of asbestos was common in the construction of buildings. A raised concrete foundation also was noted near the dwelling. Subsequent to 2006 and prior to release of the NOP for this EIR, the single-story structure on-site was demolished. SCS Engineers surveyed the Project site again on May 11, 2011, and inspected the former location of the structure. SCS Engineers observed small amounts of construction debris (e.g., concrete, bricks, wood) at the structure's former location; however, no asbestos containing materials were observed. Furthermore, the Project site is routinely disked. If any asbestos containing materials had been present at the former location of the structure, they would have been incorporated within the soil matrix during disking activities and would pose no health risk (SCS Engineers 2011).

No above-ground storage tanks (ASTs) or evidence of underground storage tanks (USTs), including vents, pipes, dispensers, fill ports, etc., were observed on the site. However, as the site has been occupied since at least 1938, it is possible that USTs associated with agricultural use were developed on-site prior to the need for permits for such facilities (SCS Engineers 2006 6).

C. *Airport Hazards*

The Project site is located east of Heacock Street, which separates the property from the March ARB/IPA. In 2010, the March Joint Powers Authority (JPA) prepared a Joint Land Use Study for the March ARB/IPA, which identifies land use recommendations within the airport's safety zones (March JPA 2010). That study is in draft form and a NOP for its required EIR was not yet prepared at the time the NOP for this EIR was released for public review. The Joint Land Use Study, which is proposed to ultimately replace the existing 1984 Riverside County Airport Land Use Plan (RCALUP) for March ARB, is discussed in this EIR with acknowledgement that it is not an

approved plan. Although the 1984 RCALUP is based on data that is 20 years old and does not reflect current operating conditions at the facility, the 1984 RCALUP is nonetheless the adopted County airport plan for the March ARB and evaluated as such in this EIR.

The 1984 RCALUP identifies the Project site as being located within Safety Zone Area 2. The RCALUP identifies that lands located within Area 2 are required to provide for an avigation easement to fully disclose the existing and future airport operations in the vicinity to future owners. There are no other land use restrictions or safety issues identified for Safety Zone Area 2 in the RCALUP (Riverside County Airport Land Use Commission 1986) applicable to the Project site.

Pursuant to the March Air Reserve Base Air Installation Compatible Use Zone Study (AICUZ) commissioned by the United States Air Force (Department of the Air Force 2005 3-3), and as depicted on Figure 6-5, Air Crash Hazards, of the Moreno Valley General Plan (City of Moreno Valley 2006a) the Project site is not located within or adjacent to any areas that are subject to air crash hazards. Similarly, the proposed Joint Use Study for March ARB/IPA identifies 73.21 acres of the Project site as being located in proposed "Zone D" and 1.84 acres as being located in proposed "Zone C1" which are not within the accident potential zone (APZ) but would require an avigation easement to disclose the airport's operational characteristics to property owners (March JPA 2010 Ch. 3).

D. Wildland Fire Hazards

❑ Fire Hazard Potential

According to Figure 5.5-2 of the City of Moreno Valley General Plan EIR (City of Moreno Valley 2006b 5.5-5), the Project site and surrounding vicinity are not identified as being located within a "Substantial Fire Risk" or "Very High Fire Risk" area. Areas subject to wildland fire hazards occur at the north and east ends of the City of Moreno Valley, in addition to open space lands located northerly of Lake Perris. The closest area to the proposed Project site identified as being subject to wildland fire hazards occurs approximately 2.5 miles east of the Project site within the open space areas located north of Lake Perris. Annual disking occurs on the Project site as required by the Fire Department to clear vegetative cover to reduce the risk of fire.

❑ Moreno Valley Fire Department

Fire service to the Project area is provided by the Moreno Valley Fire Department (MVFD). The MVFD operates six fire stations with six paramedic engine companies and three aerial truck companies, a Fire Prevention Bureau for planning and inspections, along with Emergency Services and Volunteer Programs. The MVFD provides fire suppression, emergency medical rescue, hazardous materials response, planning and inspections for businesses, and hazard reduction abatement to the citizens of Moreno Valley.

The proposed Project site is located approximately 1.25 roadway miles southwest of MVFD Station No. 65 (Kennedy Park), which is located at 15111 Indian Street provides primary fire protection services to the Project area. Secondary fire protection services is provided by MVFD Station 91 (College Park), located approximately 2.2 roadway miles from the Project site at 16110 Lasselle Street.

E. Applicable Environmental Regulations

Various government organizations share responsibility for the safe disposal of contaminants, toxic wastes, and the clean-up of hazardous substance spills. On a federal level, The National Priority List (NPL) is the Environmental Protection Agency's (EPA's) database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Superfund program. Superfund is the federal government's program to clean-up the nation's uncontrolled hazardous waste sites. The Superfund clean-up process begins with site discovery or notification to EPA of possible releases of hazardous substances. Once discovered, sites are entered into the Comprehensive Environmental Response, Compensation, and Liability Information System. The EPA then evaluates the potential for a release of hazardous substances from the site through established steps in the Superfund cleanup process. State and regional agencies have asked local governments to participate in the establishment of disposal sites, uniform handling practices, and regulations to ensure adequate toxic substance waste disposal and spill clean-up.

In California, the Department of Toxic Substances Control (DTSC) is charged with the protection of Californians from exposure to hazardous wastes. DTSC operates programs to deal with improper hazardous waste management and to prevent releases of hazardous waste by ensuring that those who generate, handle, transport, store, and dispose of wastes do so properly. DTSC also takes enforcement actions against those who fail to manage hazardous wastes appropriately. DTSC regulates hazardous waste in California primarily under the authority of the federal Resource Conservation and Recovery Act of 1976, and the California Health and Safety Code.

Most local hazardous waste programs are managed through the Riverside County Department of Environmental Health (DEH), which manages the collection of household hazardous waste. Businesses that transport or dispose of wastes are required to use a licensed hazardous waste hauler to collect and transport their waste. Any person who transports hazardous waste in a vehicle must have a valid registration issued by the DTSC (DTSC 2007).

4.7.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to hazards and hazardous materials if the Project or any Project-related component would:

1. *Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials;*

2. *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment;*

3. *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;*

4. *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result would it create a significant hazard to the public or the environment;*

5. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area;*

6. *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;*

7. *Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan; or*

8. *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.*

4.7.3 IMPACT ANALYSIS

Threshold 1:	***Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***
Threshold 2:	***Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

❑ **Impacts Analysis for Existing Site Conditions**

The north-central portion of the Project site contains small amounts of construction debris (e.g., concrete, bricks, wood). The construction debris is the remnants of a single-story dwelling that was constructed on the site prior to 1938 and was demolished sometime between 2006 and 2011. Based on a field survey conducted by SCS Engineers in 2011, the construction debris present on the subject property includes no hazardous materials. No asbestos containing materials were observed among the construction debris (SCS Engineers 2011). No other potentially hazardous materials were observed on the Project site (SCS Engineers 2006 12-13).

Groundwater beneath much of the Project site is thought to be contaminated due to historic operations at the March ARB. Groundwater contamination includes the presence of VOCs, which can migrate into nearby buildings under certain circumstances. However, due to the depth to groundwater below the Project site (i.e., 150 feet below the ground surface), the prevailing lithology (fine grain sediments), and the expert opinion of SCS Engineers, there is no significant potential for vapor intrusion into future buildings on the Project site due to the March ARB plume (SCS Engineers 2006 13). Moreover, due to remediation measures undertaken at the March ARB to address groundwater contamination, water quality beneath the Project site is expected to improve over time (SCS Engineers 2006 13). Accordingly, contaminated groundwater beneath the Project site does not pose a significant hazard to the Project site's environment or to members of the public who would be employed by or visit the Project.

One (1) groundwater monitoring well is located within the central portion of the Project site and three (3) additional monitoring wells are located near the perimeter of the Project site. The existing monitoring well in the central portion of the Project site and one (1) of the wells near the perimeter of the site would be relocated as part of the proposed Project's construction activities. The monitoring

well relocation procedure would involve the abandonment of two existing wells and the drilling of two new monitoring wells. The replacement wells would be drilled in an appropriate and accessible location on the Project site as approved by the USAF. The abandonment of the existing monitoring wells and the construction of the new monitoring wells would be required to occur in accordance with applicable State of California well standards to preclude the release of hazardous materials (i.e., contaminated groundwater). With mandatory compliance to State standards, no substantial adverse impacts are anticipated from relocating the on-site monitoring wells. With mandatory adherence to State well standards, it is highly unlikely and not reasonably foreseeable that the monitoring wells would release contaminated groundwater. A significant hazard to the public or the environment would not be created and impacts would be less than significant.

❑ Temporary Construction-Related Activities

As described in Subsection 3.3.5(A) of this EIR, the proposed Project would be constructed in two (2) phases. Phase 1 would include site preparation, all mass grading and utility installation, and construction of the proposed building on Parcel 1. Phase 2 would include construction of the proposed buildings on Parcels 2, 3, and 4. Phase 1 is estimated to last approximately 12 months and Phase 2 is estimated to last approximately 10 months. Heavy equipment would be used, which would be fueled and maintained by substances such as oil, diesel fuel, gasoline, hydraulic fluid, and other liquid materials that would be considered hazardous if improperly stored or handled. In addition, materials such as paints, roofing materials, solvents, and other substances typically used in building construction would be located on the Project site during construction.

Improper use, storage, or transportation of hazardous materials could result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. This is a standard risk on all construction sites, and there would be no greater risk for improper handling, transportation, or spills associated with the proposed Project than would occur on any other similar construction site. Accidental spills that pose a significant hazard to the public or the environment would be highly unlikely and not reasonably foreseeable; as such, impacts would be less than significant.

❑ Long-Term Operation

As discussed in EIR Section 3.0, the future tenants that would occupy buildings on the Project site are not yet identified. Future uses on-site are assumed to be any of those uses permitted by the Moreno Valley Industrial Area Plan's (MVIAP) "Industrial" designation. For purposes of analysis within this EIR, it is anticipated that Parcels 1-3 would be primarily occupied by warehouse distribution land uses and Parcel 4 would be primarily occupied by light industrial land uses. Uses permitted in the MVIAP Industrial designation include specific types of industrial and manufacturing services and commercial uses. A complete list of permitted and conditionally permitted uses can be found in Section III of the MVIAP document (Moreno Valley 2002 III-1).

Based on the list of permitted uses contained in the MVIAP's Industrial zone, it is possible that hazardous materials could be used during the course of a future tenant's daily operations. State and Federal Community-Right-to-Know laws allow the public access to information about the amounts and types of chemicals in use at local businesses. Laws also are in place that require businesses to plan and prepare for possible chemical emergencies. Any business that occupies a building on the Project site and that handles hazardous materials (as defined in Section 25500 of California Health and Safety Code, Division 20, Chapter 6.95) will require a permit from the Riverside County

Department of Environmental Health (DEH) Hazardous Materials Management Division (HMM) in order to register the business as a hazardous materials handler. Such businesses also are required to comply with California's Hazardous Materials Release Response Plans and Inventory Law, which requires immediate reporting to the Riverside County DEH and the State Office of Emergency Services regarding any release or threatened release of a hazardous material, regardless of the amount handled by the business. In addition, any business handling at any one time, greater than 500 pounds of solid, 55 gallons of liquid, or 200 cubic feet of gaseous hazardous material, is required, under Assembly Bill 2185 (AB 2185), to file a Hazardous Materials Business Emergency Plan (HMBEP). A HMBEP is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material. The intent of the HMBEP is to satisfy federal and state Community Right-To-Know laws and to provide detailed information for use by emergency responders.

If businesses that use or store hazardous materials occupy the Project, the business owners and operators would be required to comply with all applicable federal, state, and local regulations to ensure proper use, storage, use, emission, and disposal of hazardous substances. With mandatory regulatory compliance, the Project is not expected to pose a significant hazard to the public or the environment through the routine transport, use, storage, emission, or disposal of hazardous materials, nor would the Project increase the potential for accident conditions which could result in the release of hazardous materials into the environment.

In addition, standard conditions of approval will be imposed on the Project by the MVFD, which requires future occupants to obtain a permit, "…to maintain, store, use, or handle materials, or to conduct processes which produce conditions hazardous to life or property, or to install equipment used in connection with such activities," and further notes that inspection of the premises by the Fire Chief may occur at any time in accordance with Moreno Valley Municipal Code (MVMC) Section 8.36.100. A separate condition of approval identified by the MVFD further requires permits be obtained prior to Certificate of Occupancy for any uses that would, "…store, dispense, use, or handle hazardous materials…" and requires applications for such permits to be accompanied by a Hazardous Materials Management Plan (HMMP) to identify operational procedures that would minimize or attenuate the potential for hazards to the environment.

With mandatory regulatory compliance, along with mandatory compliance with the Project's conditions of approval that will require the preparation of site-specific HMMPs and permits for any uses that may maintain, store, use, or handle hazardous materials, potential hazardous materials impacts associated with long-term operation of the Project are regarded as less than significant and mitigation is not required.

Threshold 3:	***Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

The nearest school facility is Rainbow Ridge Elementary School, located 0.25-mile east of the Project site. Although the existing elementary school uses and buildings would be separated from the Project site by a distance of more than 0.25 mile, the western boundary of the school site and the eastern boundary of the proposed Project site are located at a distance of approximately 0.25 mile; accordingly, for purposes of analysis under this threshold, it is assumed that the Rainbow Ridge

Elementary School facility occurs within 0.25 mile of the Project site. There are no other existing or proposed school facilities within 0.25 mile of the Project site.

The potential for the Project to emit or handle hazardous or acutely hazardous materials is addressed above under Thresholds 1 and 2. As noted, if businesses that use, store, or emit hazardous materials occupy the Project site, the business owners and operators would be required to comply with all applicable federal, state, and local regulations to ensure proper use, storage, and disposal of hazardous substances. Moreover, and as will be required by the Project's conditions of approval, such uses also would be subject to additional review and approval by the MVFD, including requirements to obtain permits for uses that may result in the storage, use, or handling of hazardous materials, along with requirements for the preparation of a HMMP to identify operational procedures that would minimize or attenuate the potential for hazards to the environment.

There are no special requirements that pertain to hazardous materials handling near schools. Federal, state, and local laws require all businesses classified as "Hazardous Materials Handlers" by the Riverside County Department of Environmental Health to prepare an HMBEP. A Hazardous Materials Handler is identified as any facility storing more than 55 gallons, 500 pounds or 200 cubic feet of a hazardous material or hazardous waste at any one time. For acutely or extremely hazardous materials, these amounts are less. All handlers are required to disclose their inventory of hazardous materials in the form of an HMBEP. With mandatory regulatory compliance, the Project would not pose a significant hazard to schools. Federal, state, and local laws strictly regulate the storage and use of hazardous materials.

Due to the distance between the Project site and the nearest elementary school, along with federal and state laws and requirements and Project-specific conditions of approval addressing the potential for using or storing hazardous materials, the potential for the Project to adversely impacts schools by the emission or handling of hazardous materials is less than significant and mitigation is not required.

Threshold 4: ***Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

According to the Phase I ESA conducted for the Project site (SCS Engineers 2006 9-10) and a review of the State of California Department of Toxic Substances Control EnviroStor database, the Project site is not located on or included on any list of hazardous materials sites complied pursuant to California Government Code Section 65962.5. Therefore, no impact would occur.

Threshold 5: ***For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?***

The Project site is located east of Heacock Street, which separates the property from the adjacent March ARB/IPA. According to the March Air Reserve Base AICUZ (July 2006), the proposed Project site is located outside of the crash zones associated with the March ARB, indicating that the Project site is not subject to any significant safety hazards associated with the March ARB facility. According to the governing 1984 RCALUP the proposed Project site is located within Safety Zone

Area 2, which is not identified as an area subject to substantial safety hazards associated with airport operations but that requires an avigation easement. Similarly, the pending update to the 1984 RCALUP prepared by the March JPA in 2010 identifies the Project site in proposed "Zone D," which is not within a crash hazard zone but would require an avigation easement to disclose the airport's operational characteristics to property owners (March JPA 2010 Ch. 3). The Project would be required to provide for an avigation easement to fully disclose the existing and future airport operations in the vicinity, but no restrictions on use of the site for light industrial/warehouse development is identified by the RCALUP. The draft March JPA/IPA Joint Land Use Study states that property within proposed Zone D and Zone C1 should not contain tall objects, electronic forms of interference, aboveground bulk storage of hazardous materials (Zone C1), or land uses that attract birds such as certain farm crops, water bodies, and flood control facilities that hold water for more than 48 hours (March JPA 2010 Ex. 3-4, Zones D and C1). In addition, all detention basins proposed on the site are designed to contain a bottom of sandy loam soils (24-inches deep) with 18 inches of rock underneath. A sub-drain system also is designed within the rock portion of the basin. According to Thienes Engineering, with these components that promote infiltration and filtration through the sandy loam, the basins will drain within the required 48 hours, and would therefore not attract birds that could interfere with March ARB airport operations or pose a safety hazard for aircraft (Weil 2012).

Therefore, based on a review of the 1984 RCALUP, the 2010 draft March JPA/IPA Joint Land Use Study and the March Air Reserve Base AICUZ, the proposed Project site would not be subject to safety hazards associated with operations at the nearby March ARB. Accordingly, a significant impact would not occur.

Threshold 6: For a project within the vicinity of a private airstrip or heliport, would the Project result in a safety hazard for people residing or working in the Project area?

The Project site is located approximately 7.6 miles north of the privately-owned public use Perris Valley Airport, and the Project site is located well outside of the Perris Valley Airport Influence Area. The northern limits of the Airport Influence Area for this facility extend to just southerly of Nuevo Road, or approximately 5.6 miles south of the Project site. There are no heliports in the Project vicinity. Because the Project site is not located within the Airport Influence Area for any private airstrips or heliports, the safety of employees and visitors on the Project site would not be affected by private airstrips or heliports, and no impacts would occur with implementation of the proposed Project.

Threshold 7: Would the Project impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan?

The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route (City of Moreno Valley 2006a 6-1-6-12), so there is no potential for the Project to adversely affect an emergency response or evacuation plan. During construction and at Project buildout, the proposed Project would be required to maintain adequate emergency access for emergency vehicles. As part of the City's discretionary review process for Tentative Parcel Map No. 35879, the MVFD conducted a review to ensure that appropriate emergency ingress and egress would be available to and from each parcel and building to ensure public safety, and determined that

the development as proposed would not substantially impede emergency response times in the local area. Accordingly, implementation of the proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan, and no impacts would occur.

Threshold 8: ***Would the Project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?***

Lands surrounding the Project site generally consist of undeveloped lands that are routinely subject to disking, improved roadways, urban (residential) development, light industrial development, and the March ARB facility. According to Figure 5.5-2 of the City of Moreno Valley General Plan EIR (City of Moreno Valley 2006b), the Project site is located approximately 2.5 miles westerly of the nearest areas subject to wildland fire hazards. The Project site is buffered from open space lands located northerly of Lake Perris by urban development, consisting primarily of medium density residential developments located along Lasselle Street.

Implementation of the proposed Project would result in converting the primarily undeveloped condition of the site to industrial business center land uses. The low wildfire hazard on the site would be further reduced by the complete removal of flammable vegetation and the construction of structures in accordance with the Uniform Fire Code administered by the MVFD. The Project proposes parking and drive aisles on the perimeter of all on-site structures along with irrigated landscaped areas. In addition, and as noted above, the Project site is not located in close proximity to any lands subject to wildland fire hazards.

As standard conditions of Project approval, the City will require the Project to install fire hydrants and supply appropriate water pressure per the requirements of the MVFD (refer to Figure 3-7, *Conceptual Water Plan,* for approximate location of fire hydrants). The MVFD will conduct a review of future buildings on-site for compliance with the California Building Code (CBC), California Fire Code (CFC) and other related codes which are in force at the time.

Therefore, because the Project site is not located within or in close proximity to areas subject to wildland fire hazards, would incorporate design features that would minimize the potential for fire hazards on-site, and would be subject to future review by the MVFD for compliance with all applicable fire protection laws, ordinances, and requirements, the Project would not expose people or structures to risk of loss, injury, or death related to wildfires. Accordingly, no impacts would occur.

4.7.4 CUMULATIVE IMPACT ANALYSIS

As discussed above under Thresholds 1 and 2, implementation of the proposed Project would involve the construction of uses in conformance with the MVIAP's "Industrial" zoning designation. Although the end users are not presently known, if businesses that use or store hazardous materials occupy the Project, the business owners and operators would be required to comply with all applicable federal, state, and local regulations to ensure proper use, storage, and disposal of hazardous substances. Such uses also would be subject to additional review and permitting requirements by the MVFD. Similarly, any other developments in the area proposing the construction of uses with the potential for use, storage, or transport of hazardous materials also would

be required to comply with applicable federal, state, and local regulations, and such uses would be subject to additional review and permits from their applicable fire department. Therefore, the potential for release of toxic substances or hazardous materials into the environment, either through accidents or due to routine transport, use, or disposal of such materials, would be reduced to a less than significant cumulative level. Accordingly, the Project's potential to contribute to a cumulatively significant hazardous materials impact would be less than significant.

The Project site is located within one-half mile of an elementary school. As stated above, the Project would be required to comply with numerous federal, state, and local regulations regarding the use, storage, transport, and disposal of hazardous materials and all businesses located in the State of California are subjected to the same strict requirements. With mandatory regulatory compliance, the Project would not cumulatively contribute to a significant hazards/hazardous materials impact on any public or private schools.

Based on a site-specific ESA conducted for the site, it was concluded that the site does not contain any recognized environmental concerns and the site is not located on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Because the site does not contain recognized environmental concerns, there is no potential for contributing to the release of hazardous materials into the environment due to existing site conditions. If hazardous materials happened to be encountered beneath the surface of the site during grading or construction, the materials would be handled and disposed of in accordance with regulatory requirements and the Project's mitigation requirements (refer to Subsection 4.7.7). Therefore, the Project would not contribute to a cumulatively significant hazardous materials impact associated with the potential presence of existing hazardous materials or substances.

As discussed above under Threshold 5, although the Project site is located in close proximity to the March ARB, the site is not identified as being subject to hazards associated with operations at the March ARB. If other developments are proposed within the March ARB/IPA influence area, such developments would be required to demonstrate compatibility with airport operations, as identified in the 1984 RCALUP and the March ARB AICUZ. Because other developments within the March ARB/IPA influence zone cannot be implemented if they are not compatible with these documents, a cumulatively significant impact associated with airport hazards would not occur.

The proposed Project site is not located within close proximity of any private airstrips, and therefore has no potential to result in cumulatively significant impacts associated with such facilities.

The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route; therefore, there is no potential for the Project to contribute to any cumulative impacts regarding emergency management planning.

As discussed above under the analysis of Threshold 8, the Project site is not located within or in close proximity to areas identified as being subject to wildland fire hazards by the Moreno Valley General Plan. Furthermore, as the surrounding area develops, lands that are currently vacant would be developed in a manner consistent with jurisdictional requirements for fire protection, and would generally decrease the fire hazard potential in the local area. As such, within the cumulative context of the Project vicinity, fire hazards are anticipated to decline overtime, and cumulatively significant impacts associated with wildland fire hazards would not occur.

4.7.5 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Compliance with these measures was assumed throughout the above analysis of hazards and hazardous materials.

PR 4.7-1 The Project is required to comply with all federal, state, and local hazardous materials regulations, as overseen and enforced by the California Department of Toxic Substances Control, the Riverside County Department of Environmental Health and the Moreno Valley Fire Department.

PR 4.7-2 Groundwater monitoring wells requiring removal shall be abandoned in accordance with the State of California Well Standards (Department of Water Resources Bulletins 74-81 & 74-90).

PR 4.7-3 New groundwater monitoring water wells shall be constructed in accordance with the State of California Well Standards (Department of Water Resources Bulletins 74-81 & 74-90).

PR 4.7-4 If underground storage tanks are discovered during the Project's grading operation, the tanks shall be removed in accordance with the State of California Underground Storage Tank Regulations (California Code of Regulations Title 23, Division 3, Chapter 16) under the oversight of the Riverside County Department of Environmental Health, Local Oversight Program.

PR 4.7-5 In the event that any subsurface hazardous materials or potentially hazardous materials are found during grading, the suspected hazardous materials are required to be properly disposed of in accordance with federal, state and Riverside County Department of Environmental Health requirements.

PR 4.7-6 Per the requirements Riverside County Department of Environmental Health and the California Health and Safety Code (HSC), Chapter 6.95, Sections 25500 - 25532, a Hazardous Materials Business Emergency Plan must be prepared by any future business on the Project site that handles a hazardous material or a mixture containing a hazardous material in quantities equal to or greater than a weight of 500 pounds, total volume of 55 gallons, 200 cubic feet (at standard temperature and pressure) for compressed gas, or any radioactive material Extremely Hazardous Substance or Waste, any amount of a Regulated Substance, or any amount of an Acutely Hazardous Material.

PR 4.7-7 The Project is required to comply with the following standard condition of approval imposed by the City of Moreno Valley: "Prior to issuance of a Certificate of Occupancy or Building Final, a 'Knox Box Rapid Entry System' shall be provided. The Knox-Box shall be installed in an accessible location approved by the Fire Chief. The Knox-Box shall be supervised by the alarm system and all exterior security emergency access gates shall be electronically operated and be provided with Knox key switches for access by emergency personnel."

PR 4.7-8 The Project is required to comply with the following standard condition of approval imposed by the City of Moreno Valley: "Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall be responsible for obtaining underground and/or above ground tank permits for the storage of combustible liquids, flammable liquids, or any other hazardous materials from both the County of Riverside Community Health Agency Department of Environmental Health and the Fire Prevention Bureau."

PR 4.7-9 The Project is required to comply with the following City of Moreno Valley requirement: "Prior to issuance of Certificate of Occupancy, permits are required to store, dispense, use or handle hazardous material; to conduct processes which produce conditions hazardous to life or property; or to install equipment used in connection with such activities. Such permits shall not be construed as authority to violate, cancel or set aside any of the provisions of this code. Such permit shall not take the place of any license required by law. Applications for permits shall be made to the Fire Prevention Bureau in such form and detail as prescribed by the Bureau. Applications for permits shall be accompanied by such plans as required by the Bureau. Each application for a permit shall include a hazardous materials management plan (HMMP). The HMMP shall be posted adjacent to (other) permits when an HMMP is provided. The HMMP shall include a facility site plan designating the following:

a) Storage and use areas;
b) Maximum amount of each material stored or used in each area;
c) Range of container sizes;
d) Locations of emergency isolation and mitigation valves and devises;
e) Product conveying piping containing liquids or gases, other than utility-owned fuel gas lines and low-pressure fuel gas lines;
f) On and off positions of valves for valves which are of the self-indicating type;
g) Storage plan showing the intended storage arrangement, including the location and dimensions of aisles. The plans shall be legible and approximately to scale. Separate distribution systems are allowed to be shown on separate pages; and
h) Site plan showing all adjacent/neighboring structures and use.

Each application for a permit also shall include a hazardous materials inventory statement (HMIS). Permits issued by the Fire Prevention Bureau shall be kept on the premises designated therein at all times and shall be posted in a conspicuous location on the premises or shall be kept on the premises in a location designated by the Fire Chief. Permits shall be subject to inspection at all times by an officer of the fire department or other persons authorized by the Fire Chief."

4.7.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Thresholds 1 and 2: Less than Significant Impact. During Project operation and with mandatory compliance to federal, state and local regulations, the proposed Project would not create a significant

hazard to the public or the environment due to routine transport, use, disposal, or upset of hazardous materials.

Threshold 3: Less than Significant Impact. Although the Project site is located approximately 0.25 mile from the nearest school facility (Rainbow Ridge Elementary School), mandatory compliance with applicable federal, state, and local regulations, including regulations and permitting requirements from the MVFD, would ensure that operation of the proposed Project would not expose school students or staff to significant effects associated with the emissions or handling of hazardous or acutely hazardous materials, substances, or waste. Accordingly, impacts to schools are evaluated as less than significant.

Threshold 4: No Impact. The Project site is not listed on any list of hazardous materials compiled pursuant to Government Code Section 65962.5.

Threshold 5: Less than Significant Impact. The Project site is located with the influence area of March ARB/ IPA, but is not located in areas subject to crash hazards associated with airport operations. The Project does not propose any features that would be considered hazardous to airport operations. Accordingly, the Project would pose a less than significant impact to operations at the March ARB.

Threshold 6: No Impact. The Project site is not located in the vicinity of a private airstrip or heliport and, therefore, has no potential to cause a safety impact to these facilities.

Threshold 7: No Impact. The Project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. No emergency facilities exist on the Project site, and the site does not serve as an emergency evacuation route.

Threshold 8: No Impact. The Project would not expose people or structures to a significant wildfire risk. The Project site is not located in close proximity to wildland fire hazard areas. The Project would develop a vacant site, thereby reducing the risk for wildfire on the property. The Project is subject to review and approval by the MVFD to ensure that features have been incorporated within the development to address potential fire hazards. As such, a significant impact due to wildland fire hazards would not occur.

4.7.7 MITIGATION

Although hazardous materials impacts would be less than significant, the following mitigation measures are recommended as precautions during the Project's construction process.

MM 4.7-1 Prior to grading permit issuance, the City shall verify that the Project's Grading Plan indicates: a) the location of all groundwater monitoring wells that will be preserved in place; b) the method used to flag, stake, or otherwise identify the location of the groundwater monitoring wells in the field; and c) any required grading procedures or precautions to be taken in the vicinity of the monitoring well locations.

MM 4.7-2 Prior to the issuance of grading permits, the City of Moreno Valley Land Development Division shall ensure that the Project's required Stormwater Pollution Prevention Plan (SWPPP) includes emergency procedures for accidental hazardous

materials releases during construction. The procedures shall include necessary personal protective equipment, spill containment procedures, and training of workers to respond to accidental spills/releases.

4.8 HYDROLOGY AND WATER QUALITY

The analysis in this subsection is based on a report prepared by Thienes Engineering, entitled, "Preliminary Hydrology Calculations for March Commerce Center," dated March 20, 2008, and included as *Technical Appendix H1* to this EIR.

The Project site is located within the boundary of two of the Riverside County Flood Control and Water Conservation District's (RCFCWCD's) Master Drainage Plans (MDP): the Perris Valley MDP, which applies to the portion of the Project site located southwest of the Perris Valley Storm Drain Channel (i.e., proposed Parcel 4), and the Sunnymead MDP, which applies to the remaining portion of the Project site. Hydrology information in this subsection, therefore, also was obtained from the Perris Valley MDP and the Sunnymead MDP (RCFCWCD 1991), which are herein incorporated by reference and available for public review at physical location and website address given in Section 7.0, References. The relationship of the proposed Project to the MDPs is further explained in this subsection.

With respect to water quality, the Project site is located within the jurisdiction of the Santa Ana Regional Water Quality Control Board (RWQCB). Water quality information for this subsection was obtained from the Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Plan (updated February 2008) and the Integrated Regional Water Management Plan (IRWMP) for the Santa Ana River Watershed (also referred to as "One Water One Watershed," dated November 16, 2010), prepared by the Santa Ana Watershed Project Authority. These documents are herein incorporated by reference and are available for public review at the physical locations and website addresses given in Section 7.0, References. Information in this subsection also relies on a report prepared by Thienes Engineering entitled "*Preliminary Water Quality Management Plan (WQMP) for March Business Center*," dated August 12, 2008, and included as *Technical Appendix H2* to this EIR.

4.8.1 EXISTING CONDITIONS

A. Regional Hydrology

The Project site is located in the Santa Ana River watershed, which drains a 2,650 square-mile area and is the principal surface flow water body within the region (SAWPA 2010 Ch. 3). The San Jacinto River drains the area in the vicinity of the Project site. It starts in the San Jacinto Mountains (approximately 30 miles southeast of the proposed Project site), runs westerly through the City of Canyon Lake, and typically discharges into Lake Elsinore. In wet years, the San Jacinto River will overflow the lake and connect with the Santa Ana River through the Temescal Wash (SAWPA 2010 Ch. 3).

The Project site's location within the Santa Ana River Watershed is depicted on Figure 4.8-1, *Santa Ana River Watershed Map*.

B. Site Hydrology

As documented in the Project's hydrology report (*Technical Appendix H1* to this EIR) and water quality management plan (*Technical Appendix H2* to this EIR), the Perris Valley Storm Drain Channel traverses the southwestern corner of the Project site and conveys drainage towards the southeast and south towards the San Jacinto River. Under existing conditions, the Perris Valley Channel splits the Project site into two separate drainage areas. The majority of the Project site is

located north of the Channel and flows are directed in a southerly direction, with flows discharging at a point approximately 260 feet west of the southeastern corner of the Project site. The portion of the Project site located southwest of the Channel generally drains towards the southeast, and discharges at the southeast corner of the property. Flows from both portions of the site are conveyed to the Perris Valley Channel. Flows are then conveyed by the Perris Valley Channel to the San Jacinto River. Figure 4.8-2, *Existing Conditions Hydrology Map,* depicts the drainage pattern of the site under existing conditions.

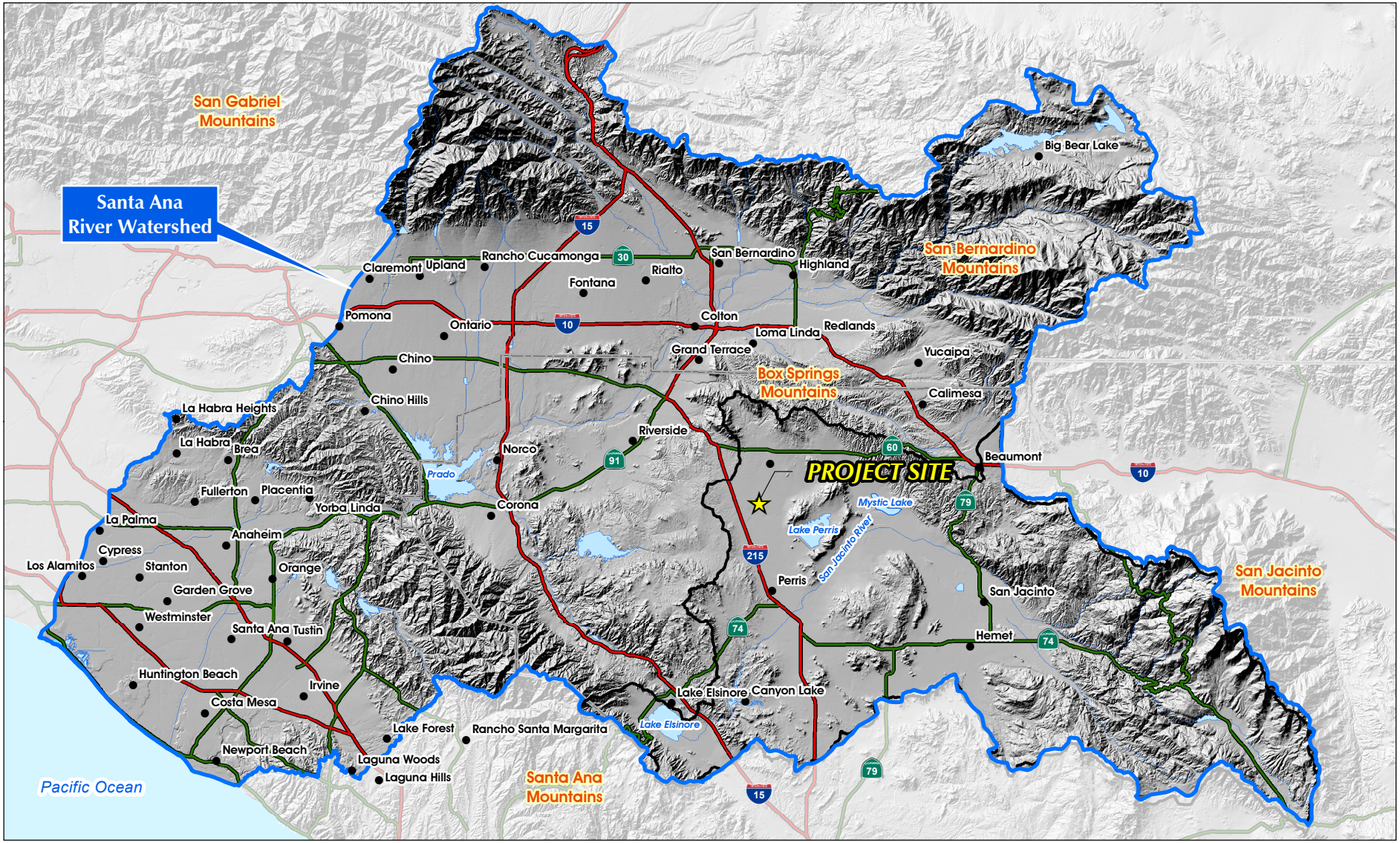
C. Perris Valley and Sunnymead Master Drainage Plans

The RCFCWCD has prepared a number of Master Drainage Plans (MDPs) within the San Jacinto River Watershed, which were created to identify master-planned drainage and flood control facilities that are needed to safely convey the runoff of 100-year frequency storms. As previously noted, the portion of the Project site located southerly of the Perris Valley Channel (i.e., proposed Parcel 4) is located within the Perris Valley MDP, as shown on Figure 4.8-3, *Perris Valley Master Drainage Plan*, while the northern portion of the site is located in the Sunnymead MDP, as shown on Figure 4.8-4, *Sunnymead Master Drainage Plan*. The Perris Valley MDP was completed in May 1987 and revised in 1991, while the Sunnymead MDP was completed in October 1978. The Perris Valley Area Drainage Plan (ADP) and the Sunnymead ADP are the financing mechanisms for the planned facilities identified in the Perris Valley and Sunnymead MDPs, respectively.

The MDPs address the current and future drainage needs of the Project area and specify facilities capable of economically relieving flooding problems within the plan areas. The MDPs and ADPs include estimates of facility capacity, sizes, and costs. The ADPs act as a financing mechanism used to offset taxpayer costs for planned master drainage facilities by imposing fees on new development within the ADP areas. The Sunnymead ADP identifies two drainage lines along Iris Avenue and Heacock Street (Lines B-19 and B, respectively), in addition to the Perris Valley Channel (referred to as Line A in the ADP). Of these facilities, Line B-19 has been constructed in association with improvements to Iris Avenue and Heacock Street, and Line A (Perris Valley Channel) also is constructed through the Project site. Line B (Heacock Channel) has not been constructed and consists of an unimproved, dirt lined channel with rip rap.

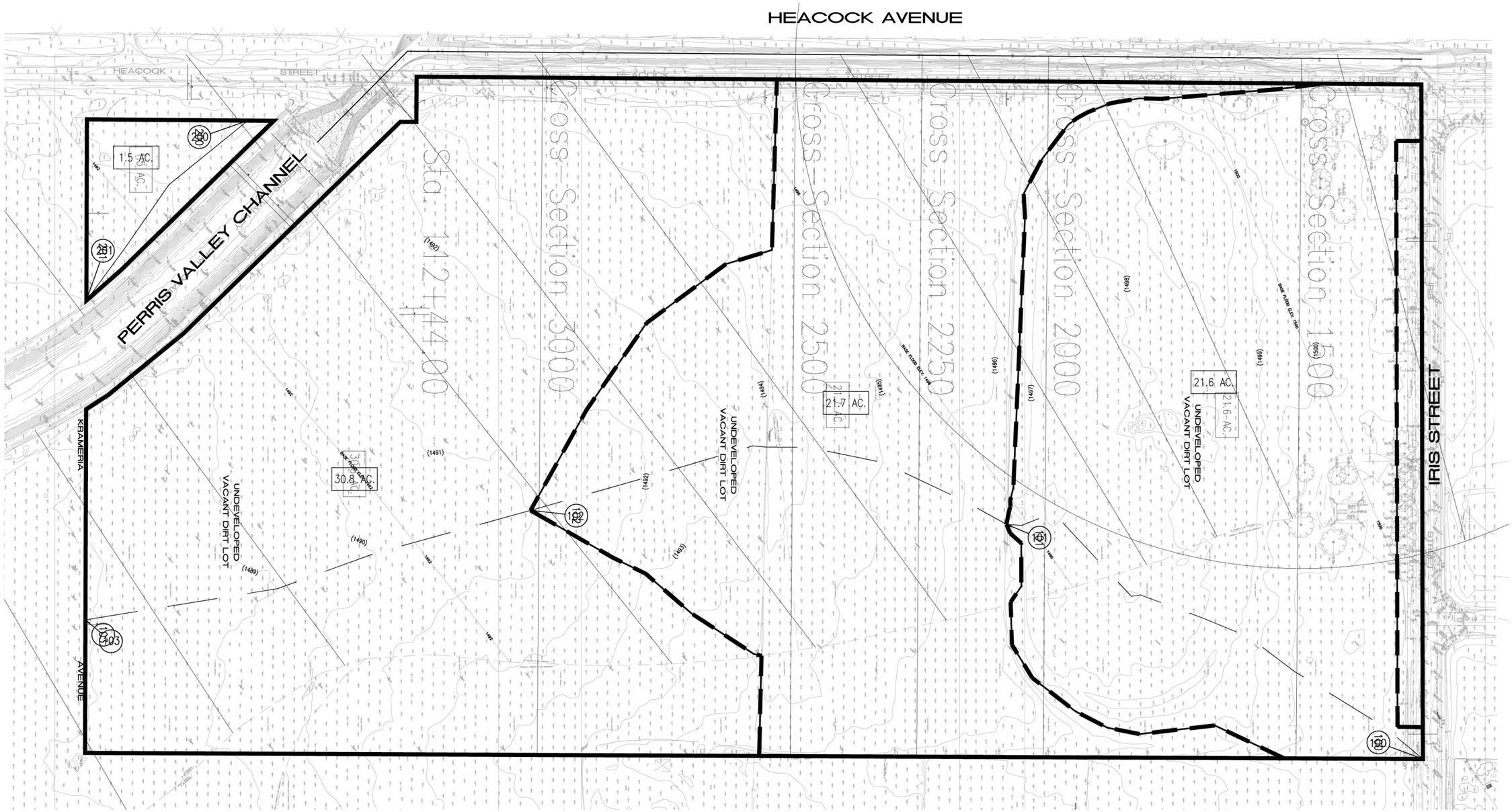
D. Flooding and Dam Inundation

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06065C 0765 G, dated August 28, 2008, the majority of the site located northerly of the Perris Valley Storm Drain Channel occurs within a designated Special Flood Hazard Zone. Flood Zones identified on the site (Zones AH and AO) indicate that the majority of the northern portion of the Project site is subject to flood depths of 1 to 3 feet (usually areas of ponding or sheet flow on sloping terrain). Additionally, the Perris Valley Storm Channel also is identified as Zone D, which is defined as areas in which flood hazards are undermined but possible. The southwestern portion of the Project site (i.e., proposed Parcel 4) is located within Flood Zone X (Shaded), indicating areas of moderate flood hazard (greater than 0.2% annual chance), usually consisting of the area between the limits of the 100-year and 500-year floods. Zone X (Shaded) also is used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year flood, or shallow flooding areas with average depths of less than one foot or drainage areas less than one square mile.. The FEMA FIRM for the Project area is depicted on Figure 4.8-5, *FEMA Flood Insurance Rate Map*.



Source: SAWPA, RCTLMA (2011)

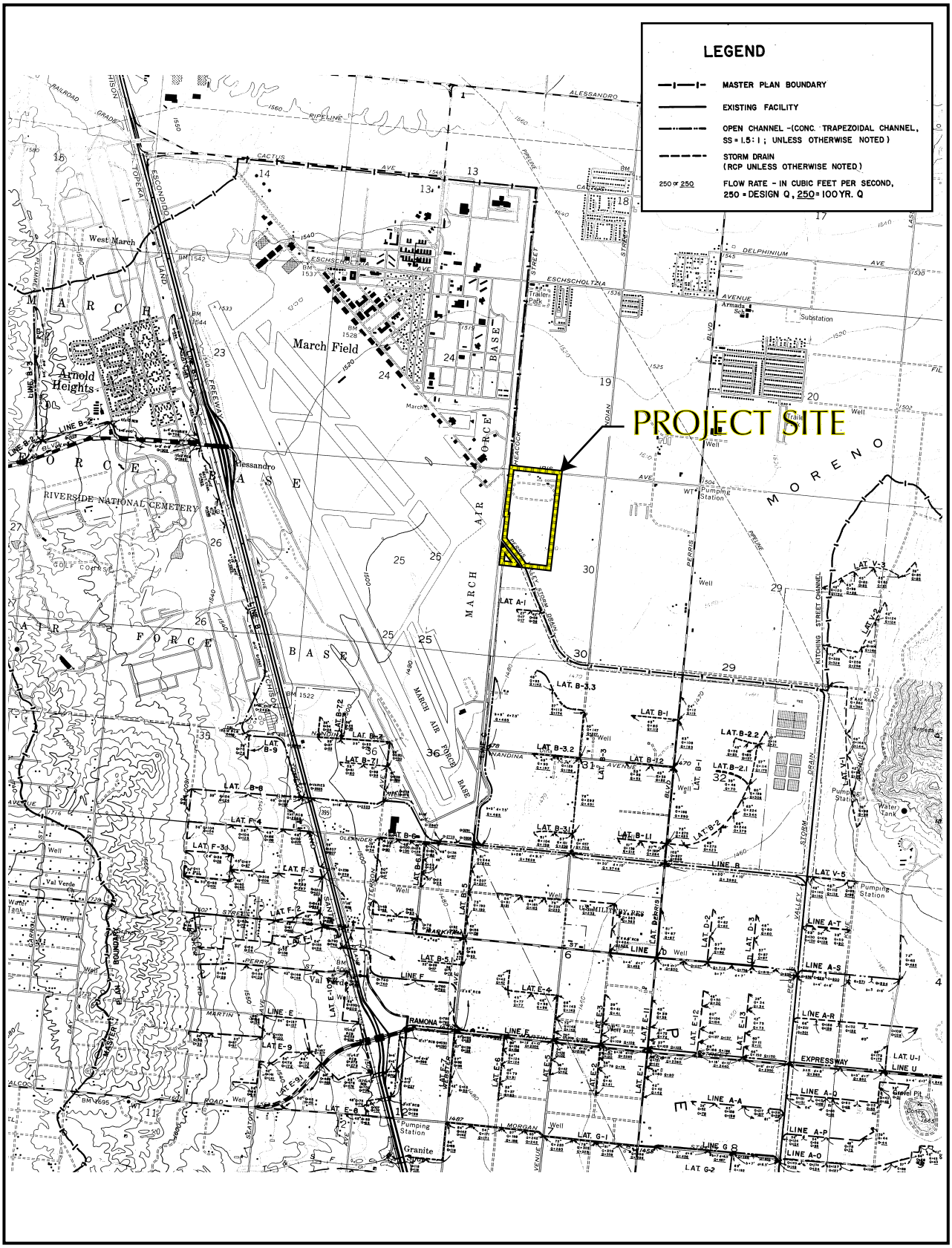
Figure 4.8-1
Santa Ana River Watershed Map



Source: Thienes Engineering, Inc. (03-20-08)

Not Scale

FIGURE 4.8-2
Existing Conditions Hydrology Map


LEGEND
MASTER PLAN BOUNDARY
EXISTING FACILITY
OPEN CHANNEL -(CONC. TRAPEZOIDAL CHANNEL, SS = 1.5 : 1 ; UNLESS OTHERWISE NOTED)
STORM DRAIN (RCP UNLESS OTHERWISE NOTED)
250 or 250
FLOW RATE - IN CUBIC FEET PER SECOND, 250 = DESIGN Q, 250 = 100 YR. Q
PROJECT SITE
March Field
Arnold Heights
RIVERSIDE NATIONAL CEMETERY
MARCH AIR FORCE BASE
MORENO
West March
Substation
Pumping Station
Water Tank
Well
Granite Hills
ALESSANDRO
CACTUS AVE
ESCHSCHOLTZIA AVENUE
DELPHINIUM AVE
PERRIS BLVD
MORRISON STREET
HEACOCK STREET
KITCHING STREET
MARCH AIR FORCE BASE
EXPRESSWAY
RAMONA
MORGAN
LINE A
LINE B
LINE E
LINE F
LINE G
LINE U
LAT A-1
LAT B-1
LAT B-2
LAT B-3.3
LAT B-3.2
LAT B-2.2
LAT B-2.1
LAT B-12
LAT B-11
LAT B-9
LAT B-8
LAT B-7.1
LAT B-7.2
LAT F-4
LAT F-3.1
LAT F-3
LAT F-2
LAT F-1
LAT E-9
LAT E-8
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LAT E-2
LAT E-1
LAT E-12
LAT E-11
LAT D-3
LAT D-2
LAT B-5
LAT B-6
LAT G-1
LAT G-2
LAT V-1
LAT V-2
LAT V-3
LAT V-5
LINE A-T
LINE A-S
LINE A-R
LINE A-P
LINE A-O
LINE A-D
LINE A-A
LINE G 8
LINE B-3
LINE B-2
LINE B-1
LINE B-8
LINE B-6
LINE B-5
LINE B-4
LINE B-3
LINE B-2
LINE B-1
LINE F
LINE E
LINE E-1
LINE E-9
LINE E-8
LINE E-6
LINE E-5
LINE E-4
LINE E-3
LINE E-2
LINE E-1
LINE E-12
LINE E-11
LINE D-3
LINE D-2
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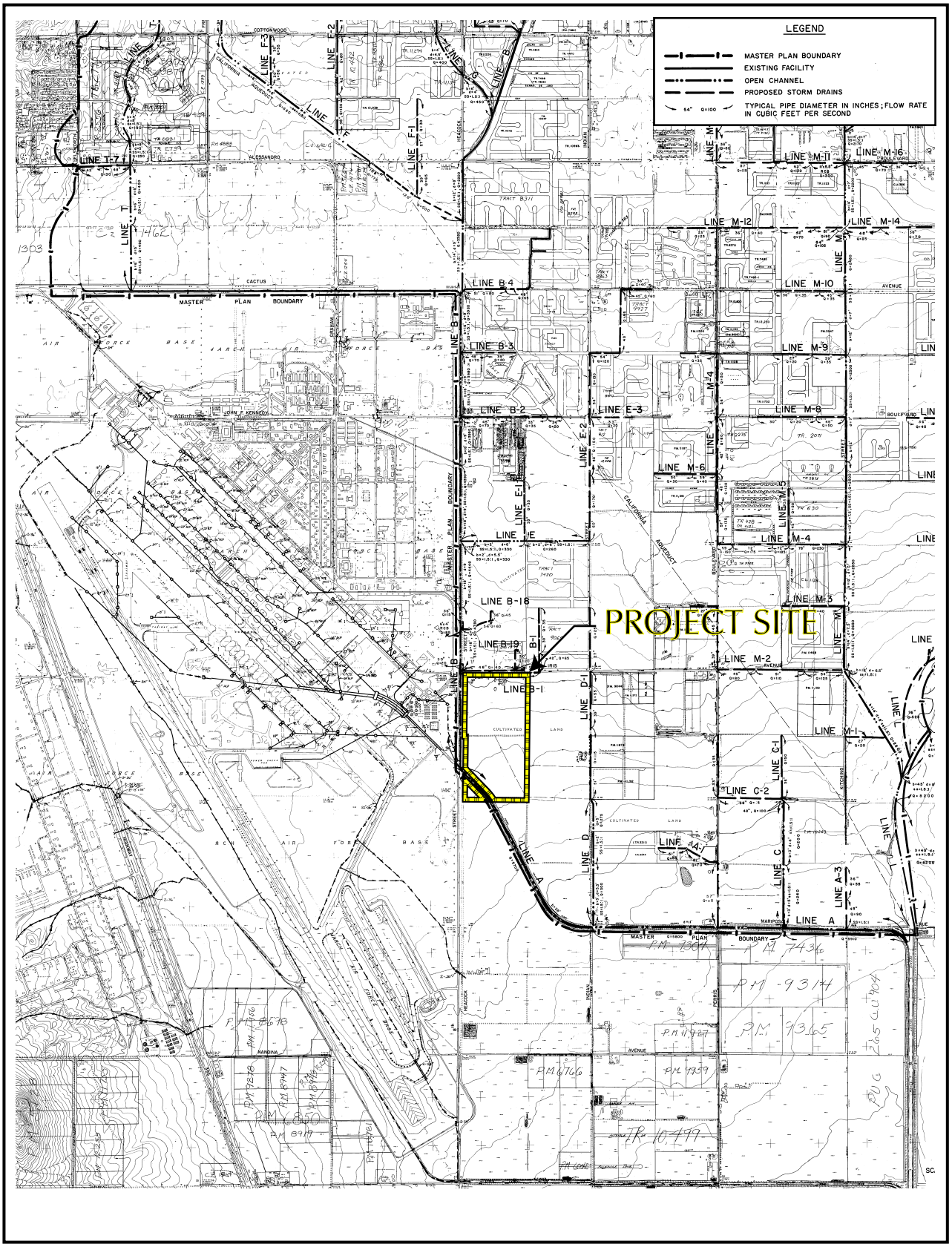
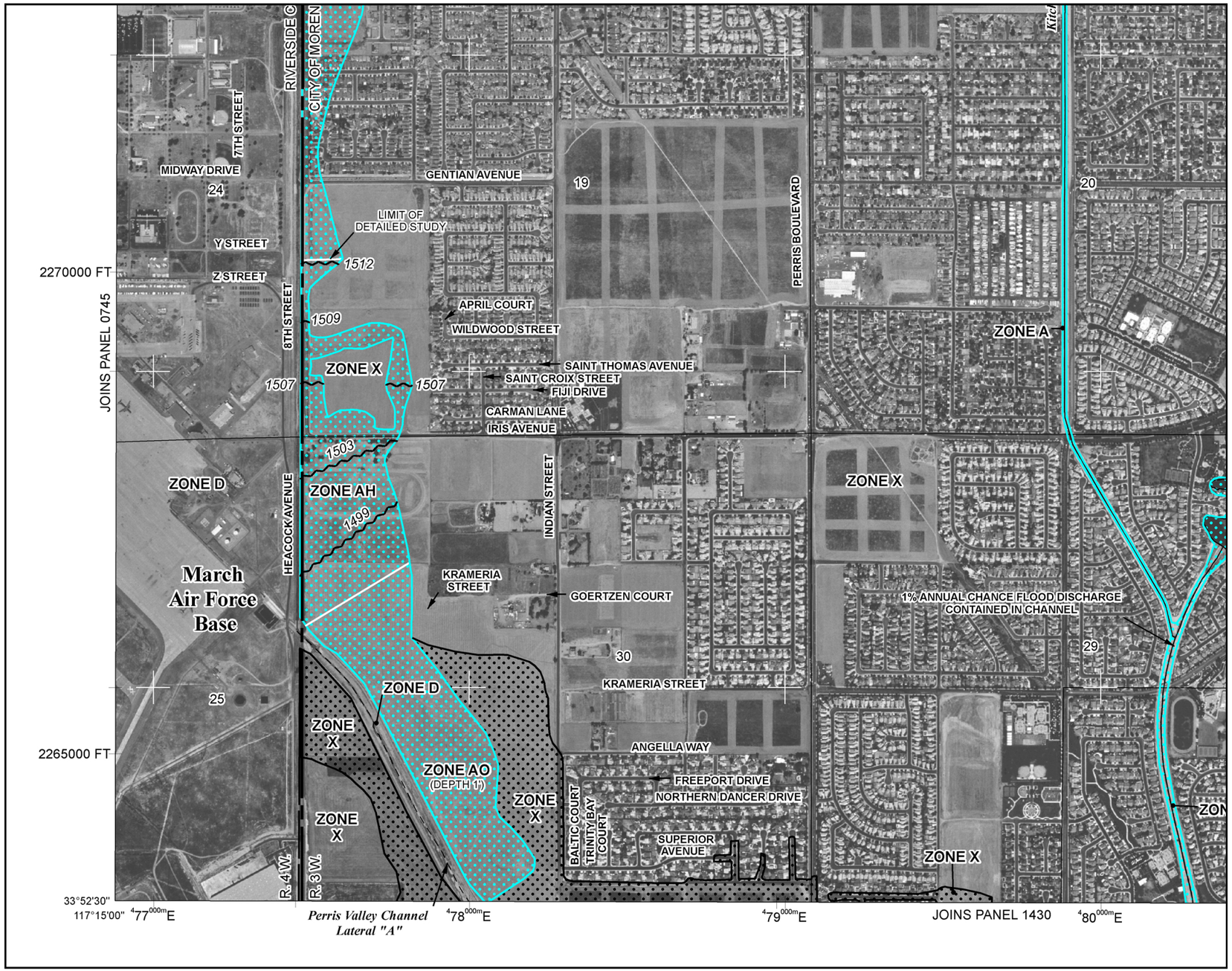
LINE B-7.1
LINE B-7.2



Source: Riverside County Flood Control

Not to Scale

FIGURE 4.8-4
Sunnymead Master Drainage Plan



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary

NFIP
PANEL 0765G

FIRM
FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 765 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MORENO VALLEY, CITY OF	065074	0765	G
RIVERSIDE COUNTY	060245	0765	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C0765G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

Source: FEMA (2008)

Not to Scale

FIGURE 4.8-5
FEMA Flood Insurance Rate Map

The City of Moreno Valley General Plan Figure 6-4, *Flood Hazards*, depicts areas subject to flood hazards or dam inundation. Information depicted on General Plan Figure 6-4 reflects the same information identified on the FEMA FIRM map for the area. General Plan Figure 6-4 also shows that the proposed Project area is not subject to hazards associated with dam inundation. The nearest area to the Project site subject to dam inundation hazards occurs south of Oleander Avenue and along portions of Evans Road located northerly of Oleander Avenue.

E. Water Quality

The California Porter-Cologne Water Quality Control Act (Section 13000 ("Water Quality") et seq., of the California Water Code), and the Federal Water Pollution Control Act Amendment of 1972 (also referred to as the Clean Water Act (CWA)) require that comprehensive water quality control plans be developed for all waters within the State of California. In order to accomplish this, the California State Water Resources Control Board divided the state into planning regions and the present system of nine RWQCBs. The Project site and vicinity are located in the San Jacinto River sub-watershed, which is within the purview of the Santa Ana RWQCB. The Santa Ana RWQCB covers the upper and lower Santa Ana River watersheds, the San Jacinto River watershed, and several other small drainage areas. The Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Plan (as amended in 2004 and updated in February 2008 to incorporate an updated total dissolved solids (TDS) and Nitrogen Management Plan) is the governing water quality plan for the region, which sets forth goals and objectives for protecting water quality within the region (Santa Ana RWQCB 2008).

The Santa Ana Basin is a group of connected inland subbasins and open coastal basins that are drained by surface streams flowing generally southwestward to the Pacific Ocean. The United States Geological Survey (USGS) has determined that the quality of surface and groundwater in the Santa Ana Basin becomes progressively poorer as water moves along the hydraulic flow-paths toward the Pacific Ocean. The highest water quality is typically found in tributaries flowing from surrounding mountains and groundwater recharged by these streams (USGS, n.d.).

The San Jacinto River sub-watershed, in which the Project site is located, encompasses an area of over 750 square miles. Runoff from the Project site under existing conditions sheet-flows generally towards the south and southeast and then to the Perris Valley Storm Drain Channel that discharges into the San Jacinto River, located approximately 7.6 miles south of the site. The San Jacinto River flows into Canyon Lake and Lake Elsinore, approximately 12.5 and 15.25 miles southwest of the Project site, respectively. Lake Elsinore has virtually no overflow, but on rare occasions during large storm events, the lake will overflow to Temescal Creek, which flows to the Santa Ana River (San Jacinto River Watershed Council 2007).

The CWA requires all states to conduct water quality assessments of their water resources to identify water bodies that do not meet water quality standards. The Santa Ana River Basin Water Quality Control Plan (Santa Ana RWQCB 2008) reports that the most serious problem in the Santa Ana River Basin is the buildup of dissolved minerals, or salts, in the ground and surface waters. Sampling and computer modeling of groundwater showed that the levels of dissolved minerals (also called total dissolved solids (TDS) were reported to exceed water quality objectives or were projected to do so in the future unless appropriate controls were implemented. Nitrogen levels in the Santa Ana River, largely in the form of nitrate, also were projected to exceed objectives. These high levels of TDS and nitrate adversely affect the beneficial uses of ground and surface waters (Santa Ana RWCQB, 2004 Watershed Management Initiative (WMI), Chapter 2).

Lake Elsinore and Canyon Lake, the terminal points for the San Jacinto River, are impaired waters located downstream from the Project site. The Santa Ana RWQCB placed Lake Elsinore and Canyon Lake on the 303(d) list of impaired waters in 1994. Canyon Lake is impaired due to nutrients and pathogens. Lake Elsinore has water quality impairments due to nutrients, organic enrichment, low dissolved oxygen, PCBs, sedimentation and siltation, and toxicity from unknown sources. The IRWMP prepared for the San Jacinto River Watershed (San Jacinto River Watershed Council 2007) reports that excess nutrients from development and agriculture in the watershed delivered to these lakes contributes to significant algae growth, which causes depletion of dissolved oxygen and results in occasional massive fish kills. The IRWMP (pages 33-46) lists several studies that have been performed to assess potential sources of nutrients and bacteria in the San Jacinto watershed, changes in water quality over time, and the impact of various best management practices (BMPs) to reduce pollutant loading or improve lake water quality, and summarizes historic trends of pollutant levels based on those studies. Refer to the IRWMP (San Jacinto River Watershed Council 2007 33-46) (incorporated herein by reference and available at the website address given in Section 7.0, References), for detailed water quality information.

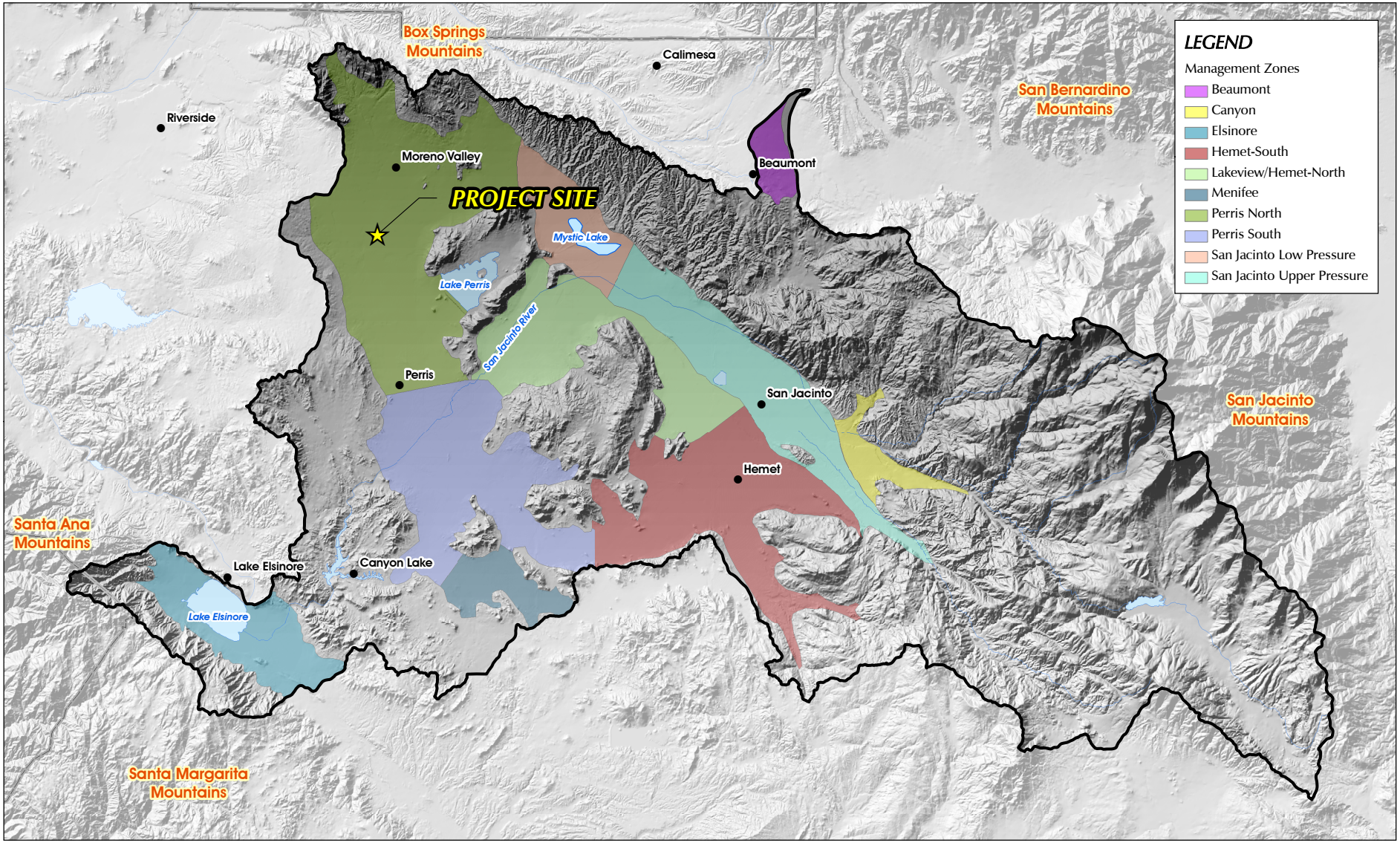
F. Groundwater

In the San Jacinto Watershed, all of the streams and rivers are ephemeral, meaning that surface water flows in them only during and immediately after a rainfall event. Generally, the majority of the area's rainfall is absorbed into the ground. When there is heavy rainfall and the ground becomes too saturated, then the water begins to flow into the streams and rivers.

The San Jacinto River Watershed area has a substantial amount of groundwater in storage, estimated by the IRWMP to be 1.45 million acre-feet (AF) (San Jacinto River Watershed Council 2007 47). The IRWMP reports that historical groundwater levels in individual wells show a complex system with conditions that vary across the area. Water levels in some wells have historically dropped, while others are rising. These conditions are a result of local historical groundwater production and recharge near water wells. Changing water levels affect the amount of groundwater in storage and can change the direction of groundwater flow, potentially to the detriment of groundwater quality (San Jacinto River Watershed Council 2007 47-54).

The Project site lies within the Perris North Groundwater Management Zone, as shown in Figure 4.8-6. Groundwater quality in the Perris North Groundwater Management Zone is monitored by Eastern Municipal Water District (EMWD). EMWD monitors ground water quality because it draws brackish (high TDS) water from wells and operates desalination facilities that remove salts. Demineralized groundwater produced from the desalination facilities contributes to EMWD's potable water supply system. The operation of these groundwater desalters to extract and treat groundwater is an important component of the salt management system in the groundwater basin (EMWD 2010).

During EMWD's 2008-09 annual groundwater quality monitoring effort, a total of 43 water quality samples were collected from wells in the Perris North Groundwater Management Zone (EMWD 2010). Table 4.8-1 depicts a marginal decrease in the high and low TDS levels from 2008 to 2009.



Source: SAWPA, RCTLMA (2011)

Figure 4.8-6
San Jacinto Watershed - Groundwater Management Zones

Table 4.8-1 Total Dissolved Solids and NO_3-N Levels for Perris North Management Zone

MANAGEMENT ZONE	YEAR	NO. OF SAMPLES	TDS (MG/L)		NO3-N (MG/L)	
			HIGH	LOW	HIGH	LOW
Perris North	2008	20	1,860	220	16.0	ND
	2009	23	1,740	251	24.0	ND

TDS = Total Dissolved Solids in mg/L (milligrams per liter).
NO_3-N = Nitrogen oxide levels in mg/L.
Source: EMWD 2010. West San Jacinto Groundwater Basin Management Plan 2009 Annual Report, Table 2. November 2010.

No potable water wells are located on or adjacent to the Project site under existing conditions. However, the Project site does contain several groundwater monitoring wells. These groundwater monitoring wells were constructed on site to monitor groundwater contamination associated with the March Air Reserve Base (ARB). Groundwater beneath the site is thought to be affected by plumes of polluted groundwater from the March ARB, although there is no evidence that any activities on the Project site may have contributed to this contamination (SCS Engineers 2006). According to EMWD's West San Jacinto Groundwater Basin Management Plan 2009 Annual Report, groundwater elevations beneath the Project site occur at an elevation of approximately 1,460 feet AMSL, indicating that groundwater beneath the site occurs approximately 44 feet below the ground surface during the spring. Refer to EIR Subsection 4.9, Hazards and Hazardous Materials, for additional information about the groundwater monitoring wells located on the property.

G. Applicable Policies and Regulations

Within California, three agencies (the U.S. Army Corps of Engineers (ACOE), the California Department of Fish and Game (CDFG), and the Regional Water Quality Control Board (RWQCB)) regulate activities within inland streams, wetlands, and riparian areas. Any development proposal that involves impacts to drainage courses, streams, or wetlands through filling, stockpiling, conversion to a storm drain, channelization, bank stabilization, road or utility crossing, or any other modifications to water resources, would require permits from the ACOE, CDFG, and/or the Santa Ana RWQCB. Additionally, the County of Riverside Department of Environmental Health (DEH) and the Santa Ana RWQCB regulate the use of groundwater.

❑ Federal Policies and Regulations

The Federal Water Pollution Control Act (also known as the Clean Water Act (CWA)) is the principal federal statute that addresses water resources. The statute employs a variety of regulatory and non-regulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. The broad goal is to restore and maintain the chemical, physical, and biological integrity of the nation's waters so that they can support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water."

The CWA requires all states to conduct water quality assessments of their water resources and identify water bodies that do not meet water quality standards. The Environmental Protection Agency (EPA) publishes recommended water quality criteria. States are not required to adopt the exact criteria, but state standards must be approved by the EPA and provide the same level of protection as EPA's standards. In California, water quality standards are established by the nine RWQCBs. The Project site is located in the Santa Ana region, and the Santa Ana RWQCB's Santa

Ana River Basin Water Quality Control Plan (Santa Ana RWQCB 2008) is applicable to the Project site and vicinity.

The provision of the CWA applicable to the proposed Project is as follows, which applies to all construction sites of over one acre in size:

- CWA Section 401 (requires federal agencies to obtain a Water Quality Certification from states, territories, and Indian tribes before issuing permits that would result in increased pollutant loads to a water body. A Section 401 certification can be issued only if increased pollutant loads would not cause or contribute to exceedances of water quality standards).
- CWA Section 402 (authorizes the National Pollutant Discharge Elimination System (NPDES) permit program that covers point sources of pollution discharging to a water body. The NPDES program also requires operators of construction sites one acre or larger to prepare a Stormwater Pollution Prevention Plan (SWPPP) and obtain authorization to discharge stormwater under an NPDES construction stormwater permit).
- CWA Section 404 (administered by the U.S. ACOE and regulates the placement of dredged or fill materials into wetlands and other Waters of the United States); and

❑ State Policies and Regulations

The California Water Code (including the Porter-Cologne Water Quality Control Act (Division 7)) is the principal state law regulating water quality in California. The Porter-Cologne Water Quality Control Act establishes a comprehensive program to protect water quality and the beneficial uses of water, and applies to both surface and groundwater. The State Water Resources Control Board adopts statewide water quality control plans and its nine RWQCBs are required to develop and adopt regional water quality control plans ("basin plans") that conform to state water quality policy. As mentioned above, the Project site is located in the Santa Ana region. The Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Plan (Santa Ana RWQCB 2008) is applicable to the Project site; it designates beneficial uses of water bodies to be protected and establishes water quality objectives.

In summary, the California Water Code contains provisions that regulate water and its use. Division 7 covers water quality protection and management. The Health and Safety Code provides for protection of ground and surface waters from hazardous waste and other toxic substances. The Harbors and Navigation Code provides regulations designed to prevent the unauthorized discharge of waste from vessels into surface waters. The Fish and Game Code has provisions to prevent unauthorized diversions of any surface water and discharge of any substance that may be deleterious to fish, plant, animal, or bird life. The Food and Agriculture Code provides for the protection of groundwater which may be used for drinking water supplies.

4.8.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to hydrology and water quality if the Project or any Project-related component would:

1. *Violate any water quality standards or waste discharge requirements;*
2. *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a*

level which would not support existing land uses or planned uses for which permits have been granted);

3. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site;*

4. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate of surface runoff in a manner which would result in flooding on- or off site;*

5. *Create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;*

6. *Otherwise substantially degrade water quality;*

7. *Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;*

8. *Place within a 100-year flood hazard area structures which would impede or redirect flood flows;*

9. *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or*

10. *Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow.*

4.8.3 IMPACT ANALYSIS

Threshold 1: Would the Project violate any water quality standards or waste discharge requirements?

Water bodies that do not meet water quality standards are placed on a list of impaired waters pursuant to the requirements of Section 303(d) of the CWA. The Project's stormwater would flow via the Perris Valley Channel to Reach 3 of the San Jacinto River, which in turn discharges into Canyon Lake (also known as Reach 2 of the San Jacinto River). From Canyon Lake, flows are conveyed via Reach 1 of the San Jacinto River where it discharges into Lake Elsinore. As indicated in Section II of *Technical Appendix H2*, Reaches 1 and 3 of the San Jacinto River are not an impaired water body on the RWQCB's Section 303(d) list. However, Canyon Lake (Reach 2 of the San Jacinto River) and Lake Elsinore are identified as impaired waters on the Section 303(d) list. Canyon Lake is impaired due to nutrients and pathogens. Lake Elsinore has water quality impairments due to nutrients, organic enrichment/low dissolved oxygen, PCBs, sedimentation and siltation, and toxicity from unknown sources.

The Project's Water Quality Management Plan (WQMP) contained as *Technical Appendix H2* has been prepared in accordance with City requirements to identify pollutants of concern and identify means to reduce their discharge into urban runoff. The following pollutants carried by water leaving the Project site have the potential to be discharged in the site's urban runoff and be carried to the San

Jacinto River, Canyon Lake, and Lake Elsinore. Pollutants could contribute to impairments of Canyon Lake and Lake Elsinore and place the San Jacinto River at greater risk of becoming impaired:

- Nutrients: Primary sources of nutrients in runoff are fertilizers and eroded soils (sediment). Landscaped areas would be added on the site that would need to be maintained and fertilized, thereby increasing the potential for nutrient increases in runoff. Water quality filtration that would occur in the four detention/infiltration basins on site would assist in fertilizer removal. The detention/infiltration basins would include extended/dry detention basins with grass lining and extended/dry detention basins with impervious lining. These detention/infiltration basins would be subject to routine maintenance required by the Riverside County Flood Control and Water Conservation District to ensure on-going effectiveness of the treatment. Additionally, the WQMP (refer to *Technical Appendix H2*) also incorporates Source Control BMPs, which are intended to help reduce the amount of runoff from landscaped areas that could contribute nutrients to receiving waters. Such BMPs require the use of reducers or shutoff valves for irrigation equipment to reduce the potential for excessive runoff due to broken sprinkler heads, and also requires the use of timers to avoid over watering that could result in nutrient-loaded runoff. With mandatory adherence to the source and treatment control BMPs specified in the Project's WQMP, impacts associated with fertilizer use in landscaped areas would be below a level of significance and no mitigation would be required.

  With buildout of the Project, the amount of bare soil exposed to runoff would be substantially reduced as compared to existing conditions. Specifically, according to the Project's proposed Plot Plans, approximately 89.5% (rounded to nearest half-percent) of the site would comprise impervious surface areas at buildout, with the remaining 10.5% composed of landscaped areas. There would be no area of bare soil; thus, development of the site as proposed by the Project would result in a substantial reduction in the amount of sedimentation in runoff from the site as compared to existing conditions. Temporary increases of sediment volume in runoff could occur during the Project's grading and construction when bare soils are exposed. However, in accordance with the mandatory requirements of CWA Section 402, Project grading and construction activities are required to obtain coverage under the General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ). This permit requires the development and implementation of a Stormwater Pollution Prevention Program (SWPPP), which must list BMPs to control sediment during construction; therefore, due to mandatory compliance with Construction General Permit Order 2009-0009-DWQ, sedimentation/ nutrient impacts during construction would be less than significant, and no mitigation would be required beyond what is already identified in the Project-specific WQMP.

- Pathogens: Pathogens (bacteria and viruses) are proliferated by the transport of animal or human fecal wastes into water bodies. There are no substantial sources of pathogens on site under existing conditions, and no substantial sources of pathogens would be introduced with buildout of the proposed Project. The proposed Project would not increase the potential for untreated human fecal waste to reach water bodies, as the Project would include the construction of a sanitary sewer system that would convey Project wastewater to EMWD facilities for treatment and disposal. The Project is proposed as a business park/light industrial development; it is therefore assumed that domestic pets or animals would not frequently visit the site. It is also assumed that pet owners would collect and properly

dispose of pet fecal matter, should pets be present on the property. Moreover, any fecal matter deposited in outdoor areas of the Project site and picked up in surface water would be subject to treatment by the on-site infiltration/detention basins, which would serve to reduce the amount of pathogens present in Project runoff. Because fecal wastes would not be a frequent occurrence on the Project site and/or would otherwise be treated by the on-site infiltration/detention basins, impacts associated with pathogens would be less than significant and no mitigation would be required.

- Organic Enrichment/Low Dissolved Oxygen: Dissolved oxygen is the amount of oxygen dissolved in water. When nutrient loads in a body of water increase, it can result in increased biological activity (e.g., algal blooms) which in turn can deplete water of oxygen. This process also could occur as a result in increased water temperature. As discussed under the analysis of impacts due to nutrients, above, human and pet wastes are not anticipated in Project runoff, and any nutrients in Project runoff would otherwise be treated by the on-site infiltration/detention basins. Additionally, there is no component of the proposed Project that would result in an increase in temperature in any receiving water. Accordingly, impacts associated with organic enrichment/low dissolved oxygen are evaluated as less than significant, and no mitigation would be required.

- Organic Compounds: PCBs (polychlorinated biphenyls) are a class of organic compounds generated by industrial activity. PCB production has been banned since the 1970s; therefore, the proposed Project would not generate PCBs.

- Sediment and Siltation: As noted above under the discussion of nutrients, buildout of the proposed Project would result in a substantial decrease in the amount of exposed soils as compared to existing conditions, which would result in a substantial decrease in the amount of sediment and siltation in Project runoff. Sedimentation in Project runoff would further be treated by the Project's infiltration/detention basins. During construction, mandatory compliance with General Permit Order 2009-0009-DWQ would ensure that sedimentation/siltation in runoff is reduced to less than significant levels. Therefore, with compliance with the WQMP and a SWPPP required by General Permit Order 2009-0009-DWQ, Project impacts associated with sediment/siltation in runoff would not be significant, and no mitigation would be required.

Based on the analysis presented above, mandatory compliance with the Project's WQMP, in addition to compliance with Construction General Permit Order 2009-0009-DWQ, would ensure that all potential pollutants of concern are minimized or otherwise appropriately treated prior to being discharged into receiving waters. Therefore, implementation of the proposed Project would not violate any water quality standards or waste discharge requirements, and impacts would therefore be less than significant. No mitigation would be required.

Threshold 2: ***Would the Project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?***

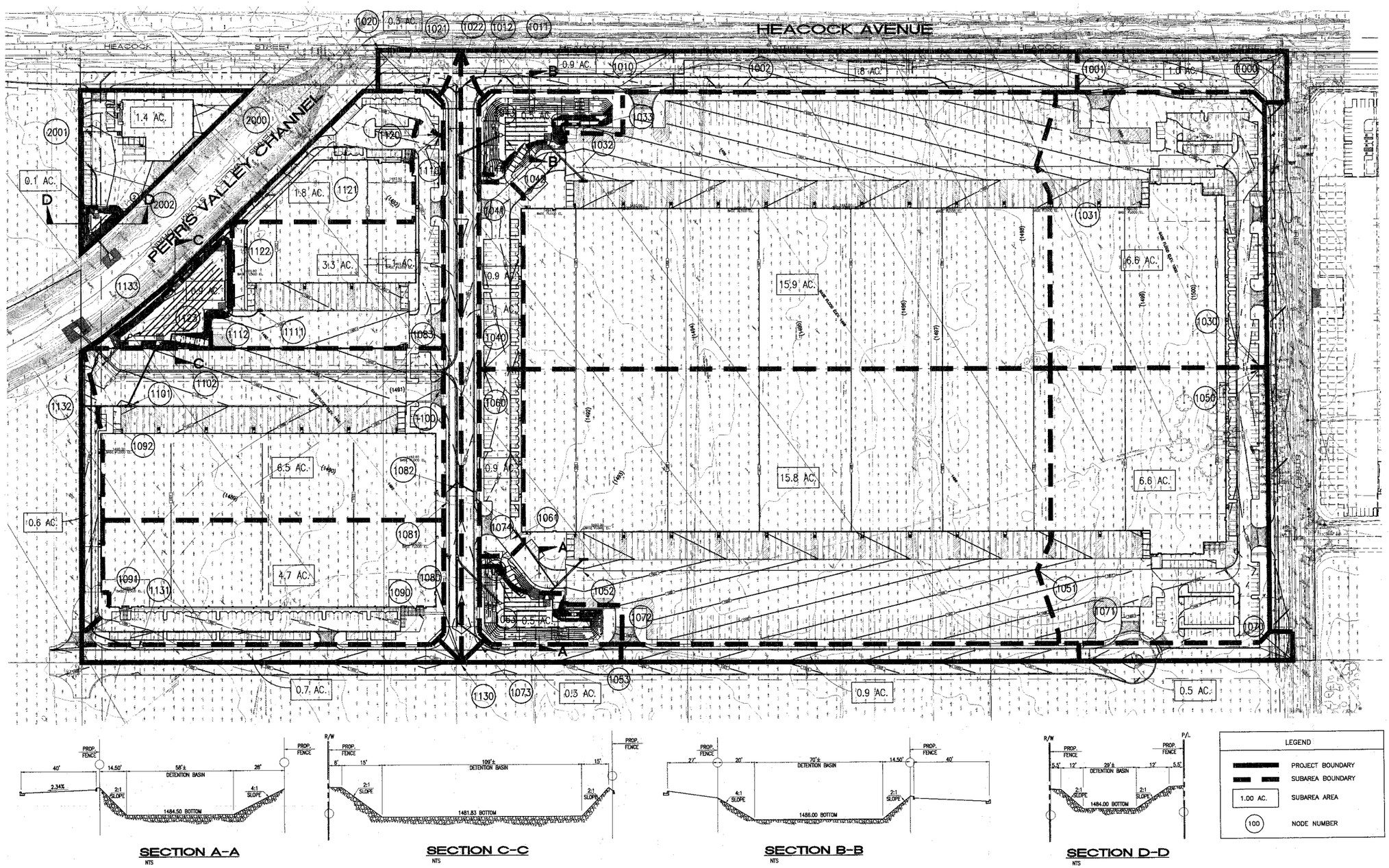
The proposed Project would be served with potable water by the EMWD, and no potable groundwater wells are proposed as part of the Project. The EMWD has indicated its ability to serve the proposed Project in light of past, present, and future commitments (*Technical Appendices K1 and K2*). Therefore, implementation of the proposed Project would not deplete groundwater supplies, and a significant impact would not occur.

Development of Project would increase impervious surface coverage on the site, which would in turn reduce the amount of infiltration of runoff into groundwater basins. However, and as noted in the City's General Plan EIR (Page 5.7-12), "the impact of an incremental reduction in groundwater would not be significant as domestic water supplies are not reliant on groundwater as a primary source." In addition, groundwater beneath the Project site is thought to be contaminated by the March ARB (refer to Subsection 4.9, Hazards and Hazardous Materials), and therefore does not serve as a source of potable water under existing conditions. Furthermore, the Project incorporates four infiltration/detention basins, which would allow some runoff from the Project site to infiltrate into the groundwater basin beneath the site. With buildout of the Project, it is not anticipated that the local groundwater levels would be affected. Therefore, impacts to groundwater supplies and recharge would not be significant, and mitigation would not be required.

Threshold 3: ***Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site?***

Figure 4.8-2 depicts the hydrologic characteristics of the proposed Project site under existing conditions. As shown, under existing conditions the drainage from the northern portions of the site are conveyed in a generally north-south alignment, and this runoff discharges along the southern Project boundary in the eastern portion of the site. Runoff in the southwestern corner of the site (i.e., southwest of the Perris Valley Storm Drain Channel) is in a generally northwest to southeast orientation, and discharges in the southeastern corner of proposed Parcel 4. All site runoff is conveyed to the Perris Valley Channel under existing conditions.

With buildout of the proposed Project, the site's hydrological characteristics would change, as depicted on Figure 4.8-7, *Proposed Conditions Hydrology Map*. A total of four infiltration/detention basins would be constructed on the site, with two basins located northerly of proposed Krameria Avenue, one basin along the southeastern corner of Parcel 3, and one smaller basin at the southeastern corner of Parcel 4. Flows from the infiltration/detention basins all would be conveyed via the site's proposed storm drain system and would discharge directly into the Perris Valley Storm Channel. Outlets into the Perris Valley Channel would be constructed with rip rap to control the velocity of flows. (Refer to Subsection 4.4 of this EIR, Biological Resources, for an analysis of potential impacts to the Channel).



Source: Thienes Engineering, Inc. (03-20-08)

Not to Scale

FIGURE 4.8-7
Proposed Conditions Hydrology Map

Thus, with buildout of the proposed Project, runoff from the Project site would continue to be conveyed to the Perris Valley Storm Drain Channel, and the site's general drainage pattern would be maintained. Additionally, all site runoff would be treated by the four on-site infiltration/detention basins, which have a "high/medium" effectiveness for treating sediment/turbidity and nutrients. Moreover, the Project proposed drainage plan would have no effect on the course of any streams or rivers. Therefore, with buildout of the proposed Project site, there would be no significant alteration of the site's existing drainage pattern and there would not be any significant increases in the rates of erosion or siltation on or off site. No mitigation would be required.

Threshold 4:	***Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate of surface runoff in a manner which would result in flooding on or off site?***

As discussed above under the analysis of Threshold 3, and as shown on Figure 4.8-2 and Figure 4.8-7, the Project's proposed drainage plan would generally maintain the site's existing drainage pattern. Implementation of the proposed Project also would not result in changes to the course of any streams or rivers.

Table 4.8-2 and Table 4.8-3 present the results of the hydrologic analyses that were completed for the proposed Project site (refer to *Technical Appendix H1* for more detail). Both rational method and flood hydrograph analyses were completed for the 100-year storm conditions, for both existing and proposed conditions. The results indicate that approximately 6.86 acre-feet of storage would be required in the three infiltration/detention basins located in the north portion of the site and approximately 0.17 acre-feet of storage would be required in the infiltration/detention basin within Parcel 4.

As detailed in *Technical Appendix H1*, by allowing one-foot for freeboard, the proposed Project's Conceptual Grading Plan accommodates infiltration/detention basins with a capacity of 1.53 acre feet, 2.22 acre feet, and 3.04 acre feet, for a total of 6.79 acre-feet, in the north portion of the site, while the infiltration/detention basin in Parcel 4 has been designed to accommodate 0.20 acre-feet of storage. Final designs for grading would be identified as part of future implementing projects, and would be accompanied by detailed technical analysis of the ultimate storage requirement to be accommodated by the infiltration/detention basins. Therefore, with buildout of the proposed Project the rate and volume of runoff from the Project site would be very similar to the rates and volumes that occur under existing conditions. As a result, implementation of the proposed Project would not result in an increase in potential for flooding of off-site properties.

Table 4.8-2 Pre- and Post-Development Conditions Hydrologic Summary – Parcels 1 through 3

Rational Method													
		Existing - Node 103				Proposed - Node 1132				Difference (Increase)			
Peak Flow	(cfs)	78.86				144.94				66.08			
Flood Hydrograph													
		Existing - Node 103 +				Proposed - Nodes 1043, 1063, & 1123				Difference (Increase)			
		100-year	10-year	5-year	2-year	100-year	10-year	5-year	2-year	100-year	10-year	5-year	2-year
Peak Flow	(cfs)	270.93	165.81	124.60	85.73	274.28	174.91	143.67	104.78	3.35	9.10	19.07	19.05	1-hour
Peak Flow	(cfs)	117.78	68.28	43.81	27.07	121.03	77.33	62.83	46.08	3.25	9.05	19.02	19.01	3-hour
Peak Flow	(cfs)	105.27	58.65	35.06	19.47	108.52	67.70	54.06	38.48	3.25	9.05	19.00	19.01	6-hour
Peak Flow	(cfs)	31.07	12.01	1.94	1.44	33.85	19.76	14.36	9.31	2.78	7.75	12.42	7.87	24-hour
Total Runoff	(ac-ft)	6.08	3.15	1.55	0.92	6.36	3.90	3.05	2.14	0.28	0.75	1.50	1.22	1-hour
Total Runoff	(ac-ft)	8.96	3.68	1.46	0.88	9.76	5.82	4.33	2.96	0.80	2.14	2.87	2.08	3-hour
Total Runoff	(ac-ft)	10.85	3.56	1.35	0.77	12.44	6.84	4.73	3.68	1.59	3.28	3.38	2.91	6-hour
Total Runoff	(ac-ft)	12.91	2.91	1.18	0.87	17.45	9.77	7.16	5.01	4.54	6.86	5.98	4.14	24-hour

Source: Thienes Engineering, Technical Appendix H1.

Table 4.8-3 Pre- and Post-Development Conditions Hydrologic Summary – Parcel 4

Rational Method													
		Existing - Node 201				Proposed - Node 2002				Difference (Increase)			
Peak Flow	(cfs)	2.35				4.44				2.09			
Flood Hydrograph													
		Existing - Node 201				Proposed - Node 2002				Difference (Increase)			
		100-year	10-year	5-year	2-year	100-year	10-year	5-year	2-year	100-year	10-year	5-year	2-year
Peak Flow	(cfs)	6.21	3.80	2.86	1.96	6.28	4.04	3.37	2.48	0.07	0.24	0.51	0.52	1-hour
Peak Flow	(cfs)	2.70	1.56	1.00	0.62	2.77	1.81	1.52	1.13	0.07	0.25	0.52	0.51	3-hour
Peak Flow	(cfs)	2.41	1.34	0.80	0.45	2.49	1.59	1.32	0.96	0.08	0.25	0.52	0.51	6-hour
Peak Flow	(cfs)	0.71	0.28	0.04	0.03	0.78	0.48	0.40	0.28	0.07	0.20	0.36	0.25	24-hour
Total Runoff	(ac-ft)	0.14	0.07	0.04	0.02	0.15	0.09	0.08	0.06	0.01	0.02	0.04	0.04	1-hour
Total Runoff	(ac-ft)	0.21	0.08	0.03	0.02	0.22	0.14	0.12	0.09	0.01	0.06	0.09	0.07	3-hour
Total Runoff	(ac-ft)	0.25	0.08	0.03	0.02	0.28	0.17	0.14	0.10	0.03	0.09	0.11	0.08	6-hour
Total Runoff	(ac-ft)	0.30	0.07	0.03	0.02	0.40	0.24	0.19	0.14	0.10	0.17	0.16	0.12	24-hour

Source: Thienes Engineering, Technical Appendix H1.

With respect to the potential for flooding on site, the proposed Project site is identified by FEMA as being located in an area subject to flooding (for the portion of the site located northerly of the Perris Valley Channel). Flood elevations identified by FEMA indicate the potential for flood depths ranging from 1 to 3 feet throughout the majority of proposed Parcels 1 through 3 during a 100-year storm event. However, the proposed Project site has been designed such that all building pads would be above the water surface elevation identified by FEMA. The Conceptual Grading Plan included as part of the Project's Tentative Parcel Map identifies all of the base flood elevations on site, and demonstrates in each case that the finished floor and pad elevation would be above the base flood elevations. Specifically, all buildings proposed on the site would be located approximately 1.1 to 2.0 feet above the water surface elevation. During final engineering, an updated HEC-RAS study (ACOE's Hydrologic Engineering Center's River Analysis System software) would be required to verify that all pad elevations are located at least one foot above flood water surface elevations (Weil 2012). Therefore, the design of the proposed Project would not result in an increase in the potential for flood hazards on site, and the Project has been designed such that no structure on site would be subject to flooding. Impacts due to increased flood hazards on site would therefore be less than significant.

Threshold 5: Would the Project create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

As discussed under the analysis of Threshold 4, the proposed Project has been designed so as to ensure that post-development runoff rates and volumes closely resemble those that occur under existing conditions. In addition, runoff from the Project site under existing conditions is conveyed to the Perris Valley Storm Drain Channel, which has sufficient capacity to handle runoff generated by the proposed Project site (assuming development of the Project's proposed infiltration/detention basins that are designed to reduce the rate and volume of runoff from the site). Because the Perris Valley Storm Drain Channel has sufficient capacity to convey runoff from the Project site under existing conditions, and since the rate and volume of runoff would not substantially increase with buildout of the proposed Project, the Project would not create or contribute runoff which would exceed the capacity of any existing or planned stormwater drainage system.

As discussed under the analysis of Threshold 1, the proposed Project would be required to comply with the Project's WQMP (*Technical Appendix H2*), which identifies BMPs to be incorporated into the Project to ensure that long-term operation of the proposed Project does not result in substantial amounts of polluted runoff. As indicated under Threshold 1, the proposed BMPs have been identified to address pollutants of concern within receiving waters (including Canyon Lake and Lake Elsinore, both of which are identified as impaired waters). During construction, the Project also would be required to comply with Construction General Permit Order 2009-0009-DWQ, which would reduce sedimentation in runoff during grading and construction of the proposed Project. Therefore, with mandatory compliance with the Project's BMPs and Construction General Permit Order 2009-0009-DWQ, the proposed Project would not create or contribute substantial additional sources of polluted runoff, and impacts would be less than significant. No mitigation is required.

Threshold 6: Would the Project otherwise substantially degrade water quality?

As discussed in detail under the analysis of Threshold 1, mandatory compliance with the Project's BMPs and Construction General Permit Order 2009-0009-DWQ would reduce to a level below significant the Project's potential to generate substantial amounts of polluted runoff, including runoff containing pollutants of concern for downstream impaired waters. Other than runoff from the site, there are no other known sources of pollutants that could impact or degrade water quality. Accordingly, a significant impact would not occur and mitigation is not required.

Threshold 7: Would the Project place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The proposed Project consists of a proposed business park/light industrial facility. Residential uses are not proposed as part of the Project. The proposed Project also would not result in an increase in the potential for off-site flooding (as discussed under Threshold 4). Accordingly, the proposed Project would not place housing, either on or off site, within a 100-year floodplain, and a significant impact would not occur.

Threshold 8: Would the Project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Under existing conditions, the majority of the site located northerly of the Perris Valley Storm Drain Channel occurs within a FEMA designated Special Flood Hazard Zone. Flood Zones identified on site (Zones AH and AO) indicate that the majority of the northern portion of the Project site is subject to flood depths of 1 to 3 feet (usually areas of ponding or sheet flow on sloping terrain). The proposed Conceptual Grading Plan included as part of the Project's Tentative Parcel Map has been designed such that all three of the proposed buildings northerly of the Perris Valley Channel would be constructed at an elevation that is higher than the base flood elevation. Thus, as a result of the proposed Project, some flood flows would be redirected around the proposed structures and would be concentrated within other portions of the Project site, particularly within proposed parking areas. However, the Project's Conceptual Grading Plan also has been designed such that elevations within the areas proposed for parking would be lower than occurs under existing conditions, thereby accommodating flood flows on site. As a result, the Project would not result in increased flood hazards to off-site properties. Although the Project would result in the redirection of flood flows on site (i.e., away from proposed structures), this proposed redirection of flows would not result in a significant adverse impact to the environment. No mitigation would be required.

Threshold 9: Would the Project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

As discussed under Thresholds 4 and 8, the proposed Project has been designed such that on-site structures would not be subject to inundation by flood flows. Additionally, flood flows on site are estimated by FEMA to comprise only a depth of 1 to 3 feet, which would not pose a substantial safety risk to people on the Project site. The Moreno Valley General Plan Figure 6-4, Flood Hazards, depicts areas within the City that are subject to failure of a dam (i.e., the Perris Reservoir), and indicates that the proposed Project site and surrounding areas are not subject to dam inundation hazards (Moreno Valley 2006a). Accordingly, there would be no significant risk of loss, injury, or death associated with the failure of a dam. In addition, there are no levees within the Project vicinity, indicating there is no potential for risk of loss, injury, or death associated with failure of a levee. The proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

Threshold 10: Would the Project expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?

The proposed Project site is located approximately 40 miles from the nearest portion of the Pacific Ocean, which is the only body of water within the region capable of producing tsunamis. Additionally, the site is separated from the Pacific Ocean by the Santa Ana Mountains. Accordingly, there is no potential for the site to be affected by a tsunami, and no impact would occur.

Seiches are a temporary disturbance or oscillation in the water level of a body of water (e.g., lake), which can result in inundation of lands surrounding the body of water. Seiches with the potential for inundating surrounding lands with flood waters are most frequently caused by seismic activity. The

proposed Project site is not located in close proximity to any bodies of water capable of producing a seiche. The nearest body of water is the Perris Reservoir, located approximately 3.0 miles southeast of the proposed Project site.

Lands surrounding the proposed Project site are generally characterized as flat, and there are no prominent topographic landforms within the Project vicinity. According to the Project's geotechnical report (*Technical Appendix E*) slope stability in the Project area is not a concern. Accordingly, the proposed Project site is not subject to any mudflow hazards.

In conclusion, the proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow. There is no potential for those impacts to occur and mitigation is not required.

4.8.4 CUMULATIVE IMPACT ANALYSIS

❑ Water Quality (Thresholds 1 and 6)

The Project site is located in the San Jacinto River sub-watershed, which includes two bodies of water that are listed on the CWA Section 303(d) list: Lake Elsinore and Canyon Lake. During construction of the Project or any other developments within the cumulative study area, there is a potential for short-term erosion and sedimentation impacts to receiving waters. However, pursuant to the NPDES permit for construction activities and requirements pursuant to Construction General Permit Order 2009-0009-DWQ, the Project and all cumulative developments would be required to prepare and implement site-specific SWPPPs that would identify potential on-site pollutants and identify and implement an effective combination of erosion control and sediment control measures to reduce or eliminate discharge of pollutants to surface water from stormwater and non-stormwater discharges. With compliance to these mandatory regulatory requirements, the Project's contribution to water quality impairments during Project construction would not be cumulatively considerable and no mitigation would be required.

As discussed in detail under the analysis of Threshold 1, a Project-specific WQMP has been prepared to identify pollutants of concern within the Project's watershed and to identify specific BMPs to address those pollutants. The Project's WQMP identifies the need for four (4) infiltration/detention basins on site, which, when combined with other site design features (e.g., providing for permeable areas for infiltration of site runoff), would ensure that runoff from the site does not contribute substantial amounts of pollutants of concern to receiving waters. Other developments within the watershed would similarly be required to prepare site-specific WQMPs and to incorporate BMPs into site design as necessary to ensure that runoff does not contribute to existing water quality violations. With implementation of the Project as designed, including four infiltration/detention basins, and mandatory compliance to the Project's WQMP (*Technical Appendix H2*), the Project's contribution to water quality degradation would not be cumulatively considerable and no mitigation would be required.

There are no other components of the proposed Project that have the potential to substantially degrade water quality; as such, the proposed Project would have no potential to cumulatively contribute to water quality impacts beyond what is discussed and evaluated above.

❑ Groundwater Quality and Recharge (Threshold 2)

As discussed under the analysis of Threshold 2, above, the proposed Project would be served with potable water by EMWD. The EMWD has indicated an ability to serve the proposed Project in light of its past, present, and anticipated future commitments (refer to *Technical Appendices K1 and K2*). Thus, the proposed Project would not deplete groundwater supplies, and would therefore have no potential to cumulatively contribute to adverse impacts associated with groundwater supplies.

Although the proposed Project would increase the amount of impervious surfaces on site, the Project incorporates four infiltration/detention basins that would allow some runoff from the site to infiltrate into the groundwater basin. Additionally, and as previously noted, the City's General Plan EIR (Moreno Valley 2006b) evaluated potential impacts to the groundwater basins beneath the City and concluded that, with buildout of the General Plan, the incremental reduction in groundwater would not be significant as domestic water supplies within the City are not reliant on groundwater as a primary source. Furthermore, groundwater beneath the proposed Project site is thought to be contaminated due to operations at the adjacent March ARB, indicating that groundwater beneath the proposed Project site is not suitable as a source of potable water (refer to Subsection 4.7, Hazards and Hazardous Materials).

Based on these factors, the proposed Project would not result in cumulatively considerable impacts associated with depletion of groundwater supplies or substantial interference with groundwater recharge.

❑ Erosion and Siltation (Threshold 3)

As discussed under the analysis of Threshold 3, the Project's proposed drainage plan would generally maintain the existing drainage patterns of the site, and all drainage would continue to discharge into the Perris Valley Storm Drain Channel as occurs under existing conditions. Additionally, all site runoff would be treated by the Project's four proposed on-site infiltration/detention basins, which as indicated in *Technical Appendix H2* have a "high/medium" effectiveness for treating sediment/turbidity and nutrients. The proposed Project also would have no effect on the course of any stream or river. Accordingly, due to the design of the proposed Project, there is no potential for the Project to make a cumulatively considerable impact associated with substantial alterations to the existing drainage pattern of the site or area which could result in substantial erosion or siltation on or off site.

❑ Flood Hazards (Thresholds 4, 7, 8, 9)

As discussed under the analysis of Threshold 4, the proposed Project would generally maintain the existing drainage pattern of the site. The proposed Project would not affect the course of any streams or rivers. In addition, the proposed Project's Conceptual Grading Plan calls for the installation of four infiltration/detention basins that have been designed to ensure that peak flood volumes and flows are substantially similar to those that occur under existing conditions. Accordingly, because the Project would not result in any potential for increase in flood potential either on or off site, the Project has no potential to contribute to a cumulatively considerable impact associated with flooding.

As discussed under Threshold 7, the Project does not involve the construction of residential uses, nor would the Project increase flood hazards on off-site properties such that residential structures could

be impacted by floods. Accordingly, the Project has no potential to contribute to the flooding of residential properties.

As more fully described under the analysis of Threshold 8, the proposed Project would place several buildings (i.e., Buildings 1, 2, and 3) within an identified flood hazard area. These structures have the potential to interfere with flood flows. However, as shown on the Conceptual Grading Plan, areas proposed for buildings would be increased in elevation to ensure buildings on site are not subject to flood hazards, while adjacent parking areas would be lowered in elevation both to facilitate site grading and to provide additional capacity on site for the redirected flood flows. As a result, the Project would not result in increased flood hazards to off-site properties. Since flood hazards in the surrounding areas would remain unchanged with Project implementation, the Project has no potential to make a cumulatively considerable contribution to flood hazard impacts.

As discussed under the analysis of Threshold 9, the Project site has no potential to be impacted by the failure of a levee or a dam; as such, the Project has no potential to make a cumulatively considerable impact that may be associated with such failures.

❑ Stormwater Drainage System Capacity (Threshold 5)

As discussed under the analysis of Threshold 5, the Project's drainage system has been designed to ensure that post-development runoff volumes and velocities closely resemble those that occur under existing conditions. All flows from the site would be discharged directly into the Perris Valley Storm Drain Channel, as occurs under existing conditions. The Channel has been designed to accommodate flows from the proposed Project site in addition to flows from other properties within the cumulative study area. Since the proposed Project would not substantially increase the amount or velocity of runoff entering the Perris Valley Channel as compared to existing conditions, the Project has no potential to contribute runoff to this facility that could result in an excedance of capacity. A cumulatively significant impact would therefore not occur.

❑ Other Hazards (Threshold 10)

As indicated under the analysis of Threshold 10, the proposed Project site is not subject to hazards associated with seiches, tsunamis, or mudflows. There are no components of the proposed Project that would increase the potential for seiches, tsunamis, or mudflows. Accordingly, the Project has no potential to make a cumulatively considerable contribution to these type of impacts.

4.8.5 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Compliance with these measures was assumed throughout the above analysis of impacts to hydrology and water quality.

PR 4.8-1 The Project is required to obtain coverage under the General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit, 99-08-DWQ). The Permit will require the preparation and implementation of a Stormwater Pollution Prevention Plan and implementation of Best Management Practices.

PR 4.8-2 The Project is required to comply with the City of Moreno Valley's standard condition of approval requiring the Project to comply with all recommendations given in its Water Quality Management Plan (*Technical Appendix H2* to this EIR).

PR 4.8-3 The Project is required to construct four (4) on-site infiltration/detention basins as indicated on the Project's proposed Tentative Parcel Map and Plot Plans.

PR 4.8-4 The Project is required to construct all buildings at elevations higher than the base flood elevation as indicated on the Project's Proposed Tentative Parcel Map and Plot Plans. During final engineering, an updated HEC-RAS study is required by the City of Moreno Valley to verify that all pad elevations are located at least one foot above flood water surface elevations (Weil 2012).

4.8.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: Less than Significant Impact. The proposed Project would not violate any water quality standards or waste discharge requirements on a direct or cumulative basis. The Project is required to prepare a SWPPP to address construction-related water quality issues, and would be required to comply with a site-specific WQMP and its associated BMPs.

Threshold 2: Less than Significant Impact. The proposed Project proposes no potable water wells and would not substantially impact the availability of potable groundwater in the Project area.

Threshold 3: Less than Significant Impact. The proposed Project would generally maintain the existing drainage pattern of the site, would have no effect on the courses of any streams or rivers, and would not result in substantial erosion or siltation on or off site.

Threshold 4: Less than Significant Impact. There would be no significant increases in flood hazard. The proposed Project would generally maintain the existing drainage pattern of the site, would have no effect on the courses of any streams or rivers, and would not result in a substantial increase in the rate of surface runoff in a manner which would result in increased flood hazards on or off site.

Threshold 5: Less than Significant Impact. The proposed Project would not create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems, nor would the Project provide substantial additional sources of polluted runoff.

Threshold 6: No Impact. There are no other components of the proposed Project with a potential to substantially degrade water quality.

Threshold 7: No Impact. The proposed Project does not involve the construction of residential housing and therefore would not place housing in a flood area.

Threshold 8: Less than Significant Impact. Although the Project would redirect flood flows on site (i.e., away from proposed structures), such changes would not result in increased flood hazards to any off-site properties.

Threshold 9: No Impact. The Project site is not subject to flood hazards associated with the failure of a levee or a dam.

Threshold 10: No Impact. The Project site is not subject to hazards associated with seiches, tsunamis, or mudflow.

4.8.7 MITIGATION

As concluded in the foregoing analysis, implementation of the proposed Project would not result in any significant impacts to hydrology/water quality; accordingly, mitigation would not be required.

4.9 LAND USE AND PLANNING

This subsection discusses compliance of the proposed Project with applicable land use and planning policies adopted by the City of Moreno Valley and other governing agencies for the purpose of reducing adverse effects on the physical environment.

The proposed Project (described in Section 3.0, Project Description) is consistent with the property's land use designations as applied by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208), as well as the property's zoning designation. CEQA Guidelines §15183(a) mandates that projects which are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified, shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. In this case, the subject property was evaluated as part of an EIR certified in 1989 for Specific Plan 208 (State Clearinghouse Number 1988080813) and as part of the City's General Plan Program EIR certified in 2006 (State Clearinghouse Number 2000091075). This subsection analyzes the Moreno Valley General Plan policies in detail, to show that development of the Project's proposed land uses were considered by the General Plan and, as such, analyzed in the City of Moreno Valley's General Plan EIR. Project compliance with land use and planning policies adopted by other agencies for purposes of reducing adverse effects on the physical environment area is analyzed as well. Reference sources for the plans and policies discussed below are included in Section 7.0, References.

4.9.1 EXISTING CONDITIONS

A. Existing Land Use and Development

Refer to Section 2.0, Environmental Setting, for a full description of existing on-site and off-site surrounding land uses. In summary, the Project site is a 75.05-acre vacant parcel of land, mostly containing ruderal vegetation that is routinely disced for fire fuel management. West of the Project site is the March Air Reserve Base (ARB). Other lands surrounding the Project site, including the Project site itself, are located in the City of Moreno Valley and are subject to the City's adopted Moreno Valley Industrial Area Plan (Specific Plan 208). Several large-scale industrial and warehouse buildings have been developed in this area and there are several approved development projects in this area that are pending construction.

Immediately abutting the Project site to the east is a rectangular-shaped parcel of vacant land comprising about 72 acres that is approved for industrial development by the City of Moreno Valley (Indian Business Park, PA07-0079, PA07-0080, PA07-121, P07-0093, and PA08-0018). To the north of the Project site is Iris Avenue, north of which are two vacant, undeveloped parcels that are approved by the City of Moreno Valley for future development as the Moreno Valley Industrial Park (PA07-0035, PA07-0039, and PA08-0021) and a residential subdivision (TM34748; located at the southeast corner of Gentian Avenue and Heacock Street). North of Iris Avenue and diagonal from the Project site's northeastern corner is an existing development of detached single-family homes, separated from Iris Avenue by a solid block wall. Properties to the immediate south and southeast of the Project site are undeveloped and are designated by the Moreno Valley General Plan and the Moreno Valley Industrial Area Plan for business park/light industrial land uses. Two (2) existing industrial/warehouse buildings are located approximately 0.15-mile south of the Project site.

B. Applicable Land Use and Planning Policies

❑ City of Moreno Valley General Plan

The City of Moreno Valley General Plan (July 11, 2006) is a policy document that reflects the City's vision for the future of Moreno Valley. The General Plan is organized into seven separate elements, including: Community Development; Economic Development; Parks, Recreation and Open Space; Circulation; Safety; Conservation; and Housing. Each element is associated with a series of policies to guide the City's vision for future development. The following is a summary of the City General Plan Elements.

Community Development Element

The Community Development Element functions as a land use guide for future development in the City. It identifies the general distribution, general location, and extent of land uses, such as housing, business, industry, open space, recreation, floodplains, and public facilities. These designations are reflected on the General Plan Land Use Map, which are applied on a parcel-by-parcel basis throughout the City. The Community Development Element also provides standards for residential density and non-residential intensity. It governs how land is to be used; therefore, many of the issues and policies contained in other elements of the General Plan are linked in some degree to this element.

The City of Moreno Valley General Plan designates the majority of the Project site for "Business Park/Light Industrial" land uses, while the northwestern corner of the site, at the intersection of Iris Avenue and Heacock Street, is designated for "Commercial" land uses. Refer to Figure 2-1, *Surrounding Land Uses and Development,* in Section 2.0, Environmental Setting. Lands to the north, east, southeast, and south are similarly designated for "Business Park/Light Industrial" land uses, while lands to the northeast are designated as residential at a maximum density of five homes per acre ("Residential: Max 5 du/ac (R5)"). (Moreno Valley 2006a, Ch. 2)

Economic Development Element

The Economic Development Element is an Element that is intended to be added to the General Plan in the future following completion of an Economic Development Strategy, which is presently being conducted in conjunction with the City Council. At present, there is no policy guidance provided by the General Plan's Economic Development Element. (Moreno Valley 2006a, Ch. 3)

Parks, Recreation and Open Space Element

The Parks, Recreation and Open Space Element includes specific policies related to open space preservation, outdoor recreation and recreation facilities, and trails. The Project site is not designated as an open space or park area by the City of Moreno Valley General Plan. (Moreno Valley 2006a, Ch. 4)

Circulation Element

The purpose of the Circulation Element is to develop a safe, efficient, environmentally and financially sound, integrated vehicular circulation system. It also is intended to provide for safe and adequate non-vehicular transportation, including pedestrian, bicycle, and public

transportation systems. Figure 9-1 of the Circulation Element identifies the long-term vehicular circulation facilities planned throughout the City. As shown on Figure 9-1 of the General Plan, both Iris Avenue and Heacock Street are identified for development as "Arterial (100-foot right-of-way)," while Krameria Avenue is identified for improvement as a "Minor Arterial (88-foot right-of-way)." The Circulation Element also depicts level of service (LOS) standards for Circulation Element roadways throughout the City. Figure 9-4 of the Circulation Element, *Bikeway Plan*, identifies the location of planned bicycle facilities throughout the City, and identifies the portions of Heacock Street and Iris Avenue abutting the Project site for Class III bike lanes, which are defined in the General Plan as routes that are "designated bikeways, not striped, and are shared with vehicles." The Circulation Plan also identifies the location of existing and proposed trails throughout the City, although there are no existing or proposed trail facilities located in the Project area (Moreno Valley 2006a, Ch. 5).

Safety Element

The goal of the Safety Element is to assist the City in achieving acceptable levels of protection from natural and man-made hazards to life, health, and property, and to ensure that emergency services in the City are adequate to meet the City's needs during both minor emergencies and major catastrophic situations (Moreno Valley 2006a, Ch. 6).

Conservation Element

The Conservation Element is intended to achieve the wise use of natural resources within the City and immediate environs. Issues addressed by the Conservation Element include erosion, water quality and supply, biological resources and associated habitat, energy conservation, historical/archaeological resources, visual quality, and solid waste and recycling (Moreno Valley 2006a, Ch. 7).

Housing Element

The Housing Element identifies and establishes the City's policies with respect to meeting the needs of existing and future residents of the City. Specific components of the Housing Element, which also are requirements of state law, include the following: an assessment of housing needs and inventory; an analysis and program for preserving assisted housing developments; a statement of community goals, quantified objectives, and policies relative to the maintenance, preservation, improvement, and development of housing; and a program which sets forth a five-year schedule of actions that the City is undertaking, or intends to undertake to implement the policies set forth in the Housing Element (Moreno Valley 2006a, Ch. 8).

The proposed Project's consistency with the goals, objectives, policies, and programs given in the City of Moreno Valley General Plan is discussed below in Subsection 4.9.3.

❑ Moreno Valley Industrial Area Plan (Specific Plan 208)

The Project site is located within the Moreno Valley Industrial Area Plan (MVIAP) Specific Plan 208 (SP 208) boundaries, which encompasses approximately 1,540 acres in the southwestern portion of the City of Moreno Valley. The MVIAP is the planning and regulatory document for all development within the Area Plan boundaries. Its development regulations and design guidelines are

intended to ensure quality development that will contribute to the City's industrial employment base, while ensuring compatibility with adjacent land uses and the City of Moreno Valley General Plan (Moreno Valley 2002).

As shown on Figure 2-5, *Moreno Valley Industrial Area Plan Map*, SP 208 designates the majority of the proposed Project site for "Industrial" development, while the northwestern corner of the Project site is designated for "Industrial Support Areas." The Industrial designation is intended to cover a wide range of industrial and industrial/business related support uses. The Industrial Support Areas are intended to allow industrial/business support services, such as food service, gas stations, office supply, and day care. A complete description of allowable uses, development standards, and guidelines associated with the site's "Industrial" and "Industrial Support Areas" designations is provided in Section III of the MVIAP (Moreno Valley 2002 III).

As also shown on Figure 2-5, the MVIAP identifies the northeastern corner of the proposed Project site as part of a "300' Residential Buffer," which is intended to provide a buffer between residential districts abutting the MVIAP industrial uses, while also maintaining the integrity of lands available for industrial uses (Moreno Valley 2002 III-2).

Section IV of the MVIAP, Development Framework, specifies planned roadway improvements. The MVIAP designates Iris Avenue and Heacock Street as "Major Arterials (100-foot right-of-way)," and designates Krameria Avenue as a "Minor Arterial (88-foot right-of-way)" (Moreno Valley 2002 IV-6 &7).

Additionally, the MVIAP identifies specific goals and objectives related to land use compatibility, urban design, and public facilities and services. Guidelines are provided related to urban design, urban form, landscape design, special corridors, open space/trails, and entries. In addition, the MVIAP provides development standards related to drainage and flood control, water and wastewater, and public services, and includes policies related to implementation of the MVIAP. The proposed Project's consistency with the applicable portions of the MVIAP is discussed below in Subsection 4.9.3.

❑ City of Moreno Valley Zoning Ordinance

Development of the Project site is regulated by the MVAIP (SP208), described above, which applies the "Industrial (I)" zoning designation to the proposed Project site. Specific Plans (including SP 208) are addressed in Chapter 9.13 of the City of Moreno Valley Municipal Code. The "Industrial (I)" designation applied by the MVIAP and codified in City Municipal Code Chapter 9.05 permits a wide range of industrial and industrial/business related support uses, including light manufacturing and storage and distribution of facilities. Lands immediately adjacent to the Project site on the north, east, southeast, and south also are designated as "Industrial (I)" as part of the MVIAP. The March Air Reserve Base, located west of the Project site, is not subject to Moreno Valley zoning regulations. Lands located northeasterly of the Project site are zoned by the City of Moreno Valley as "Suburban Residential (R5)," which allows for residential development on common sized suburban lots (i.e., single-family residential or mobile homes at densities of up to five (5) dwelling units per net acre).

The City of Moreno Valley's Zoning Ordinance is contained as Title 9 of the City of Moreno Valley Municipal Code. The proposed Project's consistency with the applicable portions of the Title 9 is discussed below in Subsection 4.9.3.

❑ Riverside County Multiple Species Habitat Conservation Plan

The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on conservation of species and their associated habitats in Western Riverside County. The MSHCP is one of several large, multi-jurisdictional habitat planning efforts in southern California with the overall goal of maintaining biological and ecological diversity within a rapidly urbanizing region. The purpose of the MSHCP is to allow Riverside County and its cities to better control local land use decisions and maintain a strong economic climate in the region while addressing the requirements of the state and federal Endangered Species Acts (Riverside County 2003b.)

The Project site is located in a portion of Riverside County that is planned for long-term development. As shown on Figure 2-6, *MSHCP Criteria Areas*, no portion of the Project site or surrounding area is identified for conservation by the MSHCP. The nearest lands proposed for conservation under the MSHCP occur south of Cajalco Road and west of I-215 (within the Mead Valley Area Plan), approximately 3.25 miles southwest of the Project site within unincorporated Riverside County.

Although the Project site is not designated for conservation under the MSHCP, the MSHCP does include certain policies requiring additional surveys and possibly conservation of resources it targets for conservation. According to the Western Riverside County MSHCP Conservation Summary Report Generator[1], the Project site is subject only to MSHCP survey requirements for the Burrowing Owl. The proposed Project's consistency with the MSHCP is discussed generally below in Subsection 4.9.3 and in detail in Subsection 4.3, Biological Resources.

❑ SCAQMD Air Quality Management Plan

California Health & Safety Code §40702 et seq., the California Clean Air Act, requires that an Air Quality Management Plan (AQMP) be developed and then updated every three years for air basins with non-attainment status. The Project site is located in the South Coast Air Basin, which has non-attainment status for ozone (O_3) and particulate matter (PM_{10} and $PM_{2.5}$). The South Coast Air Quality Management District (SCAQMD) Governing Board adopted its most recent AQMP on June 1, 2007. Every three years, the SCAQMD prepares a plan for air quality improvement within the AQMD area boundaries. Each iteration of the plan is an update of the previous plan and has a 20-year horizon with a revised baseline. The SCAQMD is preparing an update to the 2007 AQMD document, but that update had not been released for public review at the time of this EIR's NOP (June 2011).

The AQMP is a plan for the regional improvement of air quality. Projects such as the proposed Project relate to the air quality planning process through the growth forecasts that were used as inputs into the regional transportation model. If a proposed project is consistent with these growth forecasts, and if all available emissions reduction strategies are implemented as effectively as possible on a project-specific basis, then the project is consistent with the AQMP. The proposed

[1] Available on-line at: http://www.rctlma.org/online/content/rcip_report_generator.aspx.

Project's consistency with the AQMP is discussed generally below in Subsection 4.9.3 and in more detail in Subsection 4.2, Air Quality.

❑ SCAG Regional Transportation Plan and Regional Comprehensive Plan

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code §6500, also referred to as the Joint Powers Authority law. SCAG is designated as a council of governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). SCAG serves as an area-wide clearinghouse for regionally significant projects. SCAG reviews the consistency of local plans, projects, and programs with regional plans. Guidance provided by this review process is intended to assist local agencies and project sponsors to take actions that contribute to the attainment of regional goals and policies.

If a development project meets the CEQA Guidelines Section 15206(b)(2)(E) definition of a project having statewide, regional, or area-wide significance, then the project is required to be reviewed for consistency with regional plans. Because the proposed Project proposes more than 650,000 s.f. of non-residential floor space, the Project meets the definition of a project with regional significance and requires a consistency evaluation with regional plans. The applicable SCAG policy documents identified for evaluation include the Regional Comprehensive Plan (RCP) and the Regional Transportation Plan (RTP). This EIR evaluates Project consistency with the 2008 RCP and RTP, which were the applicable SCAG planning documents at the time the NOP for this EIR was released for public review (June 2011). Since that time, SCAG released a 2012 Draft RTP/SCS; however, because that document was not available nor approved in June 2011, the 2008 RCP and RTP are applicable for evaluation purposes in this EIR.

The 2008 RCP is a regional plan that is intended as a holistic, strategic plan for defining and solving inter-related housing, traffic, water, air quality, and other regional challenges. The RTP's guiding principals are to: 1) improve mobility for all residents; 2) foster livability in all communities; 3) enable prosperity for all people; and 4) promote sustainability for future generations (SCAG 2008c). The proposed Project's consistency with the RCP is discussed below in Subsection 4.9.3.

The 2008 RTP presents a regional transportation vision for the region through the year 2035. Goals of the RTP are to: 1) maximize mobility and accessibility for all people and goods in the region; 2) ensure travel safety and reliability for all people and goods in the region; 3) preserve and ensure a sustainable transportation system; 4) maximize productivity of the transportation system; 5) protect the environment, improve air quality, and promote energy efficiency; 6) encourage land use and growth patterns that complement the transportation investments and improve the cost-effectiveness of expenditures; and 7) maximize the security of the transportation system (SCAG 2008b). Performance measures and funding strategies also are included to ensure that the adopted goals are achieved through implementation. The proposed Project's consistency with the RTP is discussed generally below in Subsection 4.9.3 and in more detail in Subsection 4.11, Transportation and Traffic.

❑ Riverside County Airport Land Use Plan for the March Air Reserve Base

The Riverside County Airport Land Use Commission (RCALUC) is the local airport land use commission for airports within Riverside County, and pursuant to the California State Aeronautics Act (Public Utility Code §21670 et seq.) is tasked with preparing and adopting an airport land use

compatibility plan, and for reviewing proposed plans, regulations, and other actions of local agencies and airport operators for consistency with the plan.

The Project site is located adjacent and east of the March Air Reserve Base, which is owned and operated by the United States Air Force (USAF). An updated compatibility plan for the March Air Reserve Base is currently under consideration by the RCALUC, and in the interim has made available a 2005 compatibility map designating lands surrounding the airport into three distinct zones. The proposed Project site is located within Compatibility Zone II, which is identified as an area that is subject to airport-related noise, but is not an area that is prone to safety issues associated with airport operations. The proposed Project's consistency with the Riverside County Airport Land Use Plan for the March Air Reserve Base (ARB) is discussed below in Subsection 4.9.3.

- **USAF March Air Reserve Base Air Installation Compatibility Use Zone Study**

In 2005, the USAF prepared the March ARB Air Installation Compatibility Use Zone Study (AICUZS), which incorporates an extensive analysis of the effects of aircraft noise, accident potential, and compatible land use and development for lands surrounding the March ARB. Figures 3-1 and 3-2 of the AICUZS depict areas surrounding the airport that are subject to noise zones or accident potential zones. The proposed Project site is located outside of the 60 dBA CNEL contour, indicating that the Project site is not subject to substantial amounts of aircraft-related noise. (Air Force 2005)

For accident potential, the AICUZS identifies three distinct zones: Clear Zone (CZ), which is the area closest to the runways and has the highest potential for accidents; Accident Potential Zone (APZ) I, which is an area beyond the CZ which possesses a high potential for accidents; and APZ II, which is an area beyond APZ I with measurable potential for accidents. According to Figures 3-1 and 3-2 of the AICUZS, the proposed Project site is not located within or adjacent to the CZ, APZ I, or APZ II zones, thereby indicating that the proposed Project site is not subject to any measurable potential for accidents (Air Force 2005).

4.9.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to land use and planning if the Project or any Project-related component would:

1. *Physically divide an established community;*

2. *Conflict with an applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or*

3. *Conflict with any applicable habitat conservation plan or natural community conservation plan.*

4.9.3 IMPACT ANALYSIS

Threshold 1: Would the proposed Project physically divide an established community?

The Project site is vacant under existing conditions. Development of a business center with light industrial and warehouse distribution buildings on the Project site would not physically disrupt or divide the arrangement of an established community. The proposed Project site is located in a developing area of the City that is designated for industrial development by the City's General Plan and Moreno Valley Industrial Area Plan. The Project site is proposed to be developed with a business center in accordance with its assigned General Plan and zoning designations. Properties adjacent to the Project site have either been developed or are planned for development. Immediately abutting the Project site to the east is a vacant parcel that is approved for industrial development as Indian Business Park. To the north of the Project site is Iris Avenue, north of which is a vacant parcel approved for development as the Moreno Valley Industrial Park. West of the Project site is March Air Reserve Base and to the south is vacant land designated for additional industrial development.

Buildout of the Project site as proposed, including the proposed construction of Krameria Avenue between Indian Avenue and Heacock Street, would improve local connectivity. The Perris Valley Channel bisects the site and surrounding properties and serves as a physical divider in the community. Implementation of the Project on either side of the existing channel would not divide a community, but it is acknowledged that the existing channel physically divides the Project. The Project site does not provide access to established communities and would not isolate any established communities or residences from neighboring communities. No impact would occur.

Threshold 2: Would the proposed Project conflict with an applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Subsection 4.9.1 described the land use planning and policy documents that are applicable to the proposed Project. Provided below is a discussion of the Project's consistency with those policy documents.

❑ City of Moreno Valley General Plan

The City of Moreno Valley General Plan designates the majority of the Project site for "Business Park/Light Industrial" land uses, while the northwestern corner of the site, at the intersection of Iris Avenue and Heacock Street, is designated for "Commercial" land uses. No detailed descriptions of these land uses are given and the area designated as "Commercial" is described as "Industrial Support Area" in the MVIAP (discussed below). The March Business Center would provide 1,484,407 square feet (s.f.) of building space for an industrial business center on the subject property that is consistent with these General Plan land use designations. Tenants of the proposed buildings have not yet been identified.

A General Plan Amendment (PA11-0001) is proposed as part of the Project to modify the Circulation Element of the City of Moreno Valley General Plan. The proposed modifications to the Circulation

Element would consist of changes to the planned alignment and classification of a segment of Krameria Road between Heacock Street and proposed Cosmos Street, as described in Subsection 3.3.4. The intended purpose of this change is to improve the planned circulation network by providing a 90-degree intersection where Krameria Avenue meets Heacock Street and to provide a perpendicular connection between Heacock Street and proposed Cosmos Street to allow for more safe and efficient local circulation system. The proposed General Plan Amendment is an inherent part of the proposed Project and is evaluated throughout this EIR. No adverse environmental impacts specifically attributable to the General Plan Amendment have been identified.

Table 4.9-1, *Moreno Valley General Plan Policy Consistency Analysis*, provides a detailed analysis of the proposed Project's consistency with all applicable goals, objectives and policies of the General Plan. As shown in Table 4.9-1, the proposed Project would not conflict with any applicable goal, objective, or policy of the General Plan. The Project is determined to be consistent with the General Plan and there would be no adverse impact.

❑ Moreno Valley Industrial Area Plan

The MVIAP identifies the site for development with Industrial land uses over most of the site, with exception of the northwestern corner that is designated as Industrial Support Areas. The Project proposes to develop the site as an industrial business park as described in Section 3.0, Project Description. The land use proposed by the Project is consistent with the Industrial designation, as well as the Industrial Support Areas designation that occurs within 300 feet of the intersection of Heacock Street and Iris Avenue. As indicated in the MVIAP's Industrial Land Use Table (refer to Section III.D of the MVIAP), light and medium warehouse distribution facilities such as are proposed by the Project are permitted within Industrial Support Areas. In addition, the Project does not propose any uses within Parcel 1 that are prohibited by the MVIAP, such as petroleum product storage. The MVIAP also does not specify any uses that are required within the Industrial Support Areas (such as commercial land uses); therefore, land uses proposed for Parcel 1 would be fully consistent with the MVIAP's land use designations.

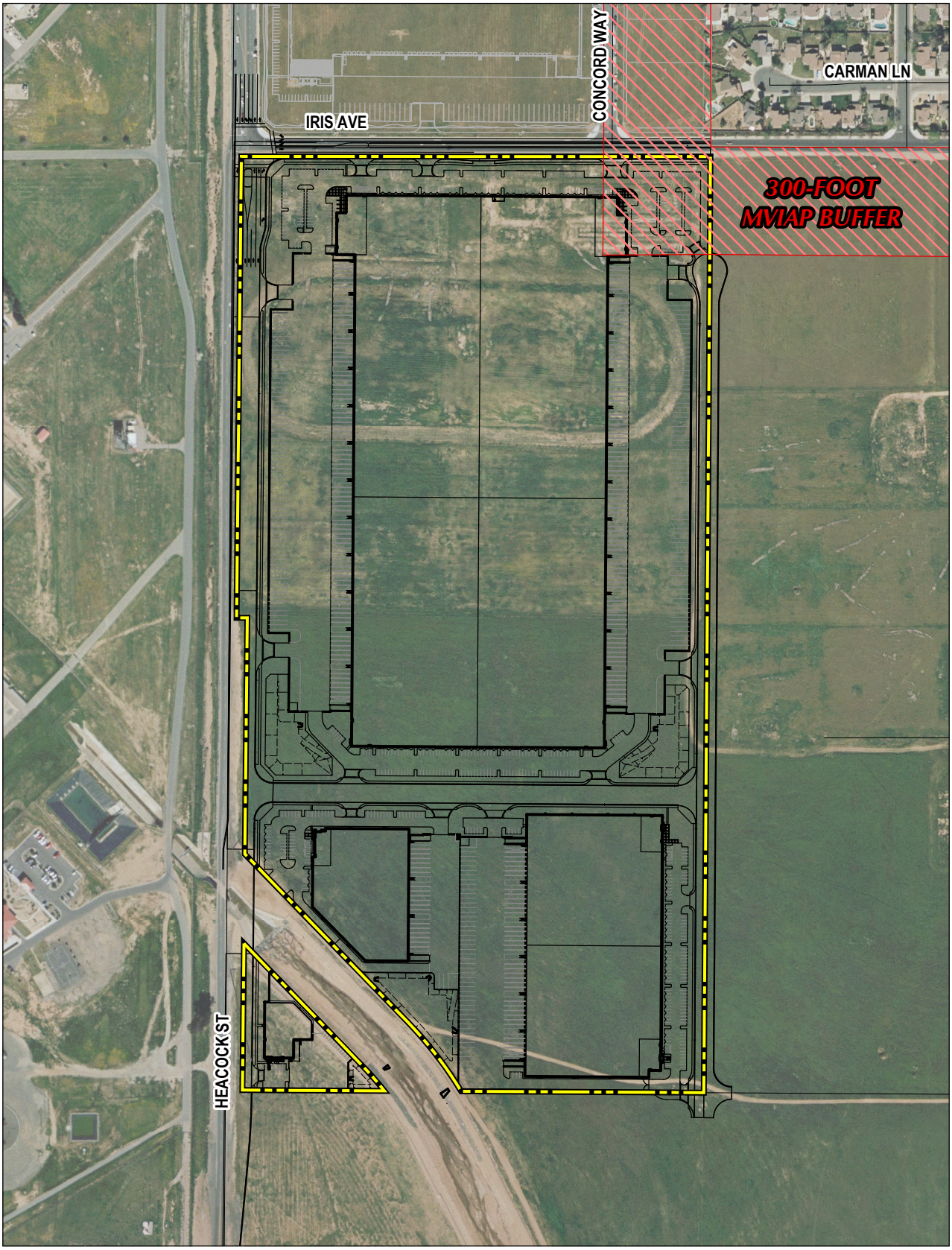
The MVIAP also includes a requirement related to the location of industrial land uses within close proximity of residential districts, which is listed under the subheading, "300 Foot Proximity to Residential District." The relationship of the proposed Project site to nearby residential uses located to the northeast is depicted on Figure 4.9-1, *MVIAP 300-Foot Residential Buffer*. Although the proposed Project would introduce development within the 300-foot buffer zone, the proposed features in this zone would consist of a parking lot for passenger cars, the primary entry and office portion of the building on Parcel 1, and landscaping. MVIAP's criteria for the 300-foot buffer zone specifically notes, "[w]here parcels exceed 300 feet in depth from a major arterial, permitted uses may extend beyond this distance so as not to affect the integrity of industrial uses, if the development proposal is part of an integrated industrial or business park" (Moreno Valley 2002 III-2). The proposed Project site abuts two arterial roadways (Heacock Street and Iris Avenue), and proposed Parcel No. 1 is designed to be 1,212 feet in depth. The placement of a passenger car parking lot, landscaping, and the main entry and office portion of the building on Parcel 1 in the 300-foot buffer zone, as depicted on Figure 4.9-1, retains the integrity of proposed industrial uses on the site. Because the proposed development is part of an integrated industrial business center, the proposed Project would not conflict with the MVIAP's "300 Foot Proximity to Residential District" criteria.

In addition, the City of Moreno Valley Planning Department conducted a thorough review of the proposed Project for consistency with applicable development requirements specified by the MVIAP, and determined that the proposed Project is consistent with the MVIAP, assuming approval of the Project's development applications as designed (*i.e.*, PA11-0001, PA11-0002, PA11-0003, PA11-0004, PA11-0005, PA11-0006, PA11-0007, and P11-004) and the associated Conditions of Approval that will be prepared by the City. If approved, the Project will be required to comply with all imposed Conditions of Approval. The Project is determined to be consistent with the land use designation and applicable policies of the MVAIP and there would be no adverse impact.

Similar to the General Plan Amendment described above, the proposed realignment and reclassification of Krameria Avenue through the Project site would require an amendment to the MVIAP. The intended purpose of this change is to improve the planned circulation network by providing a 90-degree intersection where Krameria Avenue meets Heacock Street and to provide a perpendicular connection between Heacock Street and proposed Cosmos Street to allow for more safe and efficient local circulation system. The proposed Specific Plan Amendment is an inherent part of the proposed Project is evaluated throughout this EIR. No adverse environmental impacts specifically attributable to the Specific Plan Amendment have been identified.

❑ Western Riverside County MSHCP

As indicated in Subsection 4.9, Biological Resources, the Project site is not designated for conservation under the MSHCP; however, the MSHCP does include certain policies related to the Burrowing Owl that are applicable to the proposed Project. As concluded under the analysis of Threshold 6 in EIR Section 4.3, Biological Resources, the proposed Project would be consistent with the MSHCP's Reserve Assembly Requirements, as well as other applicable MSHCP requirements pursuant to the following sections of the MSHCP: Section 6.1.2, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools; Section 6.1.3, Protection of Narrow Endemic Plant Species; Section 6.1.4, Guidelines Pertaining to the Urban/Wildland Interface; and Section 6.3.2, Additional Survey Needs and Procedures. Therefore, a significant impact due to a conflict with the MSHCP would not occur.



Source: RCTLMA (2011), Eagle Aerial (2008), Thienes Eng.

Figure 4-9.1

Moreno Valley Industrial Area Plan 300-ft. Residential Buffer

❑ SCAQMD Air Quality Management Plan

An analysis of the proposed Project's consistency with the SCAQMD Air Quality Management Plan is provided in EIR Subsection 4.2, Air Quality, under the analysis of Threshold 1. As concluded in EIR Subsection 4.2, the proposed Project would be fully consistent with the SCAQMD Air Quality Management Plan. No impacts would occur.

❑ SCAG Regional Transportation Plan

An analysis of the proposed Project's consistency with SCAG's Regional Transportation Plan is provided in Table 4.9-2, *Project Consistency with SCAG Regional Transportation Goals*. As indicated in Table 4.9-2, the proposed Project would not conflict with any of SCAG's Regional Transportation Goals. No impacts would occur.

❑ SCAG Compass/Growth Visioning Principles

An analysis of the proposed Project's consistency with SCAG's Compass/Growth Visioning Principles is provided in Table 4.9-3, *Project Consistency with SCAG Compass/Growth Visioning Principles*. As indicated in Table 4.9-3, the proposed Project would not conflict with any of SCAG's Compass/Growth Visioning Principles. No impacts would occur.

❑ Riverside County Airport Land Use Plan for the March Air Reserve Base

The proposed Project site is located within Compatibility Zone II of the March Air Reserve Base, which is identified as an area that is subject to substantial airport-related noise, but is not an area that is prone to safety issues associated with airport operations. An analysis of potential impacts to the Project from operations at the adjacent March ARB associated with aircraft noise is provided in EIR Section 4.10, *Noise*, which concludes that such impacts would not be significant. Accordingly, the Project would be consistent with the land use restrictions identified in the Riverside County Airport Land Use Plan for the March ARB. No impacts would occur.

❑ USAF March Air Reserve Base Air Installation Compatibility Use Zone Study

The proposed Project site is located outside of the 60 dBA CNEL contour of the March Air Reserve Base and is not identified within the CZ, APZI, or APZ II zones. Accordingly, the Project site is not subject to any land use restrictions associated with the USAF March ARB AICUZS. The proposed Project is therefore consistent with the USAF March ARB AICUZS. No impacts would occur.

As indicated in the above analysis, the proposed Project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating any environmental effects. Accordingly, a no adverse impact to land use and planning would occur.

Threshold 3: Would the proposed Project conflict with any applicable habitat conservation plan or natural community conservation plan?

The only applicable habitat conservation plan or natural community conservation plan within the Project area is the Western Riverside County MSHCP. As indicated in the analysis of the Project's consistency with the MSHCP under Threshold 2 and in Subsection 4.4, Biological Resources, the proposed Project would be fully consistent with the MSHCP's policies. Accordingly, there would be

no conflict with an applicable habitat conservation plan or natural community conservation plan. No impact would occur.

4.9.4 CUMULATIVE IMPACT ANALYSIS

As discussed under the analysis of Threshold 1, the proposed Project would not result in the physical division of any established communities, nor would the development of any parcel surrounding the Project site. No cumulative impact associated with community division is identified and the Project has no potential to cumulatively contribute to physical community division.

As discussed under the analysis of Thresholds 2 and 3, the proposed Project would not conflict with or adversely affect the implementation of any applicable plan, policy, regulation, or habitat conservation plan/natural community conservation plan. Accordingly, there is no potential for the Project to contribute to any cumulatively significant impacts due to a conflict with plans, policies, regulations, or habitat conservation plans/natural community conservation plans.

4.9.5 APPLICABLE PROJECT REQUIREMENTS

The following is a standard to which the Project would be required to adhere. Compliance with this requirement was assumed throughout the above analysis of cultural resources.

PR 4.9-1 The Project is required to comply with all Conditions of Approval issued by the City of Moreno Valley associated with the Project's permit applications (*i.e.*, PA11-0001, PA11-0002, PA11-0003, PA11-0004, PA11-0005, PA11-0006, PA11-0007, and P11-004).

4.9.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: No Impact. The proposed Project would not result in the physical division of any established communities.

Threshold 2: No Impact. The proposed Project would not conflict or adversely affect the implementation of with any applicable plan, policy, or regulation adopted for the purpose of avoiding or reducing environmental effects.

Threshold 3: No Impact. The proposed Project would not conflict with or adversely affect the implementation of the Western Riverside County MSHCP, nor any other habitat conservation plans or natural community conservation plans.

4.9.7 MITIGATION

Impacts would not be significant; therefore, mitigation is not required.

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
Community Development Element	Goal 2.1: A pattern of land uses, which organizes future growth, minimizes conflicts between land uses, and which promotes the rational utilization of presently underdeveloped and undeveloped parcels.	No inconsistencies identified. Land uses proposed by the Project are consistent with the City's General Plan, Zoning Ordinance, and the MVIAP. Land uses designations identified by these documents depict a pattern of land uses that fulfills this goal.
	Goal 2.2: An organized, well-designed, high quality, and functional balance of urban and rural land uses that will meet the needs of a diverse population, and promote the optimum degree of health, safety, well-being, and beauty for all areas of the community, while maintaining a sound economic base.	No inconsistencies identified. Land uses proposed by the Project are consistent with the City's General Plan, Zoning Ordinance, and the MVIAP, all of which have been designed to ensure fulfillment of this goal. The Project relates to this goal, in particular, by enhancing employment opportunities within the City to the benefit of the City's economic base.
	Goal 2.3: Achieves an overall design statement that will establish a visually unique image throughout the City.	No inconsistencies identified. The proposed Project would be developed in accordance with the criteria specified in the MVIAP, including standards for urban form, landscape design, entries, and lighting. Compliance with the MVIAP design guidelines incorporated in the Project's design and enforced through City of Moreno Valley standard Conditions of Approval would ensure consistency with this Goal.
	Goal 2.5: Maintenance of systems for water supply and distribution; wastewater collection, treatment, and disposal; solid waste collection and disposal; and energy distribution which are capable of meeting the present and future needs of all residential, commercial, and industrial customers within the City of Moreno Valley.	No inconsistencies identified. An analysis of Project impacts on water supply and distribution; wastewater collection, treatment and disposal; and solid waste collection and disposal, is provided in EIR Subsection 4.12, which concludes that there are adequate services and facilities to serve the proposed Project. Energy distribution systems also are available at the proposed Project site, and the Project would not adversely affect the ability of electricity providers to serve other properties in the surrounding area.
	Objective 2.1: Balance the provision of urban and rural lands within Moreno Valley by providing adequate land for present and future urban and economic development needs, while retaining the significant natural features and the rural character and lifestyle of the north-eastern portion of the community.	No inconsistencies identified. As noted under the analysis of consistency with Goal 2.1, the proposed Project is consistent with the General Plan, Zoning Ordinance, and MVIAP, all of which have been designed to meet this objective.
	Objective 2.4: Provide commercial areas within the City that are conveniently located, efficient, attractive, and have safe and easy pedestrian and vehicular circulation in order to serve the retail and service commercial needs of Moreno Valley residents and businesses.	No inconsistencies identified. Objective 2.4 addresses commercial development, which is not proposed as part of the Project. Although the General Plan designates the northwestern corner of the Project site as "Commercial," the MVIAP designates this same area is "Industrial Support Areas." Commercial areas are accommodated in other locations within the City and the Project would not result in the conversion of commercially-designated

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
		lands to other uses.
	Objective 2.5: Promote a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors; and which meets the service needs of local businesses.	No inconsistencies identified. The proposed Project is consistent with the General Plan, Zoning Ordinance, and the MVIAP land use designations, all of which were designed to fulfill this objective. Additionally, the proposed Project site is located along major arterials with good access to Interstate 215.
	Policy 2.5.1: The primary purpose of areas designated Business Park/Industrial is to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. The zoning regulations shall identify the particular uses permitted on each parcel of land. Development intensity should not exceed a Floor Area Ratio of 1.00 and the average floor area ratio should be significantly less.	No inconsistencies identified. The proposed Project would accommodate industrial development on-site in a manner consistent with the MVIAP development standards and guidelines, and the uses identified in the MVIAP are consistent with those of the zoning regulations specified in the Municipal Code. The Project proposes development on-site at a floor area ratio of 0.51, which is less than the 1.00 specified by this policy.
	Policy 2.5.2: Locate manufacturing and industrial uses to avoid adverse impacts on surrounding land uses.	No inconsistencies identified. The only land uses surrounding the Project site that could be impacted by industrial development are the residential neighborhoods located to the northeast and east of the site. Other approved industrial projects (Indian Business Park, PA07-0079, PA07-0080, PA07-121, P07-0093, and PA08-0018) and Moreno Valley Industrial Park (PA07-0035, PA07-0039, and PA08-0021), would be closer to these residential areas than the proposed Project. Still, the proposed Project would be required to comply with the MVIAP's designation of the northeastern corner of the site as part of the 300' Residential Buffer area, which is intended to buffer nearby residential areas from industrial activities planned within the MVIAP area. The nearest sensitive receptor is located approximately 115-feet away from the northeast corner of the Project, as measured from the property boundary, and the building proposed on the Project's Parcel 1 would be located more than 200 feet interior to the Project site. An analysis of potential impacts to surrounding land uses is provided in EIR Sections 4.1, Aesthetics, 4.2, Air Quality, 4.7, Hazards/Hazardous Materials, 4.8, Hydrology/Water Quality, and 4.10, Noise. Under each of these sections, impacts to surrounding land uses would be less than significant in the long-term, or would be reduced to a level below significant with the incorporation of mitigation measures. There would be a

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
		significant and unmitigated impact associated with short-term construction noise during the period of time that the Project is under construction. This impact would occur with the development of any land use on the project site and is not associated with the Project's land use; therefore, no land use impact would occur.
	Policy 2.5.3: Screen manufacturing and industrial uses where necessary to reduce glare, noise, dust, vibrations and unsightly views.	No inconsistencies identified. An analysis of potential impacts associated with glare and visual quality is provided in EIR Subsection 4.1. As concluded in the analysis in Subsection 4.1, the Project has been designed so as to prevent offensive views to off-site properties, and would accommodate 9' to 14' walls around any truck parking or loading area that would be visible from adjacent roadways. These walls would be constructed behind a 6-foot tall landscaped berm to soften the visual effects of the wall. Along the Project's perimeter where walls are not proposed, extensive landscaping is proposed so as to screen the development from off-site areas. In addition, no component of the proposed Project would result in substantial amounts of glare. Significant noise and dust impacts would only occur during the Project's construction phase These impacts would occur with the development of any land use on the project site and are not associated with the Project's land use; therefore, no land use impact would occur.
	Policy 2.5.4: Design industrial developments to discourage access through residential areas.	No inconsistencies identified. Circulatory access to the proposed Project site would be accommodated primarily by Heacock Street, Iris Avenue, and Krameria Avenue, and these roadways provide access to Interstate 215 without traversing residential areas. The design of the Project therefore inherently discourages Project-related traffic from using residential streets. Truck and haul traffic is restricted to approved truck routes.
	Objective 2.8: The major purpose of specific plans is to encourage and promote the development of larger-scaled mixed-use developments for the purpose of providing adequate flexibility and innovation in residential building types, land use mixes, site design, and development concepts.	No inconsistency identified. The Project is part of an approved Specific Plan that encourages and promotes the development of a large-scale development and that provides adequate flexibility and innovation in land uses, site design, and development concepts. The Project is consistent with the MVIAP.
	Policy 2.8.1: In order to provide superior design solutions, reduce adverse environmental impacts, preserve scenic values, and enhance the provision of open space and other amenities, transfers of residential densities permitted under the General	No inconsistency identified. The portion of this policy relating to transfer of residential density is not applicable to the proposed Project, as the Project proposes only industrial business park land uses. Development on the proposed Project site would occur in conformance with the MVIAP, which includes

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
	Plan may be accomplished in accordance with the following: *a. The transfer of residential densities may be accomplished only pursuant to approval of a planned unit development or hillside development.* *b. Up to one hundred percent (100%) of the density indicated on the General Plan Land Use map may be transferred within a single hillside development or planned unit development project. Densities may not be transferred from one project to another.* *c. The proposed transfer of densities shall be accomplished such that the project results in a superior use of land, increased sensitivity to the environment, and/or enhanced project amenities without an increased burden on public facilities and services.*	design guidelines and standards to ensure that the design of implementing projects adheres to this policy. As concluded in EIR Subsection 4.1, *Aesthetics*, the Project would not result in any significant impacts to visual quality. The Project site also is not identified by the General Plan for preservation of open space, nor is the Project site located adjacent to any existing or proposed open space areas.
	Policy 2.8.2: To the extent that development policies, land use standards, design guidelines, and other provisions of the adopted specific plans are, by their content, intended to address issues contained in the objectives, policies, and implementation programs of the Moreno Valley General Plan, and are inconsistent with the provisions of the General Plan, then the provisions of those specific plans shall be controlling; otherwise, all other provisions of the Moreno Valley General Plan shall remain in effect.	No inconsistency identified. The proposed Project would be developed in a manner consistent with the MVIAP. For issues where the MVIAP is silent, the Project would be consistent with applicable General Plan objectives, policies, and implementation programs (as indicated in the analysis presented throughout this Table 4.9-1.
	Objective 2.10: Ensure that all development within the City of Moreno Valley is of high quality, yields a pleasant living and working environment for existing and future residents, and attracts business as the result of consistent exemplary design.	No inconsistency identified. The proposed Project would be developed in accordance with the MVIAP, which incorporates a variety of development standards and guidelines intended to ensure that development within the MVIAP boundaries meets the purpose of this objective.
	Policy 2.10.1: Encourage a design theme for each new development that is compatible with surrounding existing and planned developments.	No inconsistency identified. The MVIAP was designed so as to ensure compatibility with both surrounding land uses and within the MVIAP area. The Project complies with the MVIAP's "300' Residential Buffer," which was imposed to ensure compatibility between industrial uses within the MVIAP and residential uses located in close proximity to the MVIAP.
	Policy 2.10.2: Screen trash storage and loading areas, ground	No inconsistency identified. General Note No. 9 on Sheet A 0.1 of the Master

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
	and roof mounted mechanical equipment, and outdoor storage areas from public view as appropriate.	Plot Plan requires the following: Trash enclosures shall be designed per modified City standards to include a fully covered roof over the enclosure and accommodate two trash bins, one for trash and the other for recyclables."
	Policy 2.10.3: Require exterior elevations of buildings to have architectural treatments that enhance their appearance. *a. A design theme, with compatible materials and styles should be evident within a development project;* *b. Secondary accent materials, colors and lighting should be used to highlight building features;* *c. Variations in roofline and setbacks (projections and recesses) should be used to break up the building mass.* *d. Industrial buildings shall include architectural treatments on visible facades that are aesthetically pleasing.*	No inconsistency identified. Architectural elevations included in the Master Plot Plan convey a design theme that incorporates compatible materials and styles. Secondary accent materials, including variations in color and architectural style. Roof lines are proposed with some variation in heights. Architectural projections have been incorporated into the façade, particularly near entrances, to help break up the building mass. All proposed industrial buildings would have aesthetically pleasing treatments to facades visible from off-site locations.
	Policy 2.10.4: Landscaping and open spaces should be provided as an integral part of project design to enhance building design, public views, and interior spaces; provide buffers and transitions as needed; and facilitate energy and resource conservation.	No inconsistency identified. The proposed Project incorporates areas of landscaping and open space areas which are integral to the Project's design. Open landscaped areas are provided along the perimeter of the Project, in addition to on-site detention basins. Perimeter landscaping will help to screen the proposed development from off-site views, and will help to buffer the site from existing residential uses located northeast of the site.
	Policy 2.10.6: Buildings should be designed with a plan for adequate signage. Signs should be highly compatible with the building and site design relative to size, color, material, and placement.	No inconsistency identified. Although plans for signage are not required or included as part of the Project, General Note 4 on Sheet A 0.1 of the Master Plot Plan requires that "All Signage and Graphics to Conform with Municipal Standards."
	Policy 2.10.7: On-site lighting should not cause nuisance levels of light or glare on adjacent properties.	No inconsistency identified. An analysis of potential impacts associated with Project lighting is provided in EIR Subsection 4.1, Aesthetics, which concludes that impacts associated with Project lighting would be less than significant.
	Policy 2.10.8: Lighting should improve the visual identification of structures. Within commercial areas, lighting should also help create a festive atmosphere by outlining buildings and encouraging nighttime use of areas by pedestrians.	No inconsistency identified. The proposed Project does not include any commercial retail land uses. Per General Not 3 on Sheet A 0.1 of the Master Plot Plan, all Project lighting elements would be required to comply with City standards.
	Policy 2.10.9: Fences and walls should incorporate landscape	No inconsistency identified. Landscaping is proposed along the perimeter of

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	elements and changes in materials or texture to deter graffiti and add visual interest.	the Project and in front of the proposed screen walls. Landscaping would include a combination of shrubs and street trees, which would serve to discourage graffiti while adding visual interest to the street scene.
	Policy 2.10.10: Minimize the use and visibility of reverse frontage walls along streets and freeways by such treatments as landscaping, berming, and "side-on" cul-de-sacs.	No inconsistency identified. The proposed Project would not include any reverse frontage walls. Screening walls proposed around the Project's perimeter would incorporate both berms and landscape elements to help reduce the visual prominence of the walls from off-site viewing locations.
	Policy 2.10.11: Screen and buffer nonresidential projects from adjacent residential property and other sensitive land uses when necessary to mitigate noise, glare and other adverse effects on adjacent uses.	No inconsistency identified. The MVIAP includes policies intended to ensure an adequate buffer between existing residential uses located to the northeast of the Project site and industrial uses proposed within the MVIAP boundaries as part of the "300' Residential Buffer." The MVIAP 300' Residential Buffer requires the maintenance of a 300-foot buffer between industrial and residential land uses, although permitted uses may encroach into this buffer zone as necessary to maintain the integrity of industrial uses. The proposed Project would be consistent with the 300' Residential Buffer, and incorporates screen walls, berms, and landscaping to screen the existing residential uses from operational noise, glare, and other adverse effects of the Project. Please refer also to the discussion and analysis of potential visual and noise impacts on these existing residential uses in EIR Subsections 4.1 and 4.10, respectively.
	Policy 2.10.12: Screen parking areas from streets to the extent consistent with surveillance needs (e.g. mounding, landscaping, low profile walls, and/or grade separations).	No inconsistency identified. Parking areas within the Project would be screened by a series of berms, screen walls, and landscaping.
	Policy 2.10.13: Provide landscaping in automobile parking areas to reduce solar heat and glare.	No inconsistency identified. Landscaping is proposed along public parking areas and at the perimeter of areas to bee used for docking bays.
	Policy 2.10.14: Preserve or relocate existing mature trees and vegetation where practical. Mature trees shall be replaced when they cannot be preserved or relocated.	No inconsistency identified. The Project site does not contain any mature trees or other vegetation that could be feasibly replanted on site within landscaped areas.
	Objective 2.11: Maintain a water system that is capable of meeting the daily and peak demands of Moreno Valley residents and businesses, including the provision of adequate fire flows.	No inconsistency identified. EMWD prepared a Water Supply Assessment for the proposed Project (*Technical Appendix K1*), which demonstrates that sufficient water resources are available to serve the proposed Project. The Tentative Parcel Map depicts the size and location of proposed water lines, which have been designed pursuant to City standards and long-range planning

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		efforts in the vicinity. Provision of adequate fire flows would be required pursuant to the City's standard conditions of approval. Also refer to EIR Subsection 4.12, Utilities and Service Systems.
	Policy 2.11.1: Permit new development only where and when adequate water services can be provided.	No inconsistency identified. EMWD prepared a Water Supply Assessment for the proposed Project (*Technical Appendix K1*), which demonstrates that sufficient water resources are available to serve the proposed Project.
	Objective 2.12: Maintain a wastewater collection, treatment, and disposal system that is capable of meeting the daily and peak demands of Moreno Valley residents and businesses.	No inconsistency identified. As indicated in EIR Subsection 4.12, Utilities and Service Systems, with construction of the wastewater conveyance facilities that are proposed as part of the Project, the Project would be adequately served by a wastewater collection, treatment, and disposal system. Project sewer demands also would not inhibit the ability of EMWD to serve existing and future residents or business in the local area.
	Policy 2.12.1: Prior to the approval of any new development application ensure that adequate septic or sewer service capacity exists or will be available in a timely manner.	No inconsistency identified. As concluded in EIR Subsection 4.12, Utilities and Service Systems, with improvements proposed as part of the Project, adequate sewer service capacity exists to serve the proposed development.
	Objective 2.13: Coordinate development activity with the provision of public infrastructure and services to eliminate possible gaps in service provision.	No inconsistency identified. As concluded in EIR Subsection 4.12, Utilities and Service Systems, adequate infrastructure and services exists to serve the proposed Project.
	Policy 2.13.1: Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.	No inconsistency identified. As concluded in EIR Subsection 4.12, Utilities and Service Systems, adequate infrastructure and services exists to serve the proposed Project.
	Policy 2.13.2: Unless otherwise approved by the City, public water, sewer, drainage and other backbone facilities needed for a project phase shall be constructed prior to or concurrent with initial development within that phase.	No inconsistency identified. All water, sewer, drainage, and other backbone facilities needed in support of the Project either already exist or would be constructed concurrent with initial development in each phase of Project construction.
	2.13.3 It shall be the ultimate responsibility of the sponsor of a development project to assure that all necessary infrastructure improvements (including system wide improvements) needed to support project development are available at the time that they are needed.	No inconsistency identified. All water, sewer, drainage, and other backbone facilities needed in support of the Project either already exist or would be constructed concurrent with initial development in each phase of Project construction.

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	Policy 2.13.4: Encourage installation of advanced technology infrastructure, including, but not limited to, infrastructure for high speed internet access and solar energy.	No inconsistency identified. This policy provides guidance to City staff and decision-makers for the provision of advanced technology infrastructure, and the proposed Project would not interfere with implementation of this policy.
	Objective 2.14: Establish and implement comprehensive solutions to the financing of public facilities that adequately distribute costs based on the level of benefit received and the timing of development.	No inconsistency identified. The Project would be required to pay fees as part of the City's DIF fees (City Ordinance No. 695), which have been established for the purpose of ensuring financing for necessary public facilities.
	Policy 2.14.3: Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.	No inconsistency identified. The proposed Project has been reviewed for its impacts on public services and facilities, including roadways, water, sewer, fire, police, parks, and libraries. The proposed Project would be adequately served by these services and facilities in accordance with the General Plan service standards. Also refer to individual analyses of these services and facilities in EIR Subsections 4.11 and 4.12 and Section 5.0.
	Objective 2.16: Maintain local library facilities and reserves in accordance with the following minimum standards: 0.5 square feet of library space and 1.2 volumes per capita.	No inconsistency identified. The proposed Project would be required to pay DIF fees in accordance with City Ordinance No. 695, which would provide funds for library facilities to help the City meet this objective.
Parks, Recreation, and Open Space Element	Goal 4.2: To retain an open space system that will conserve natural resources, preserve scenic beauty, promote a healthful atmosphere, provide space for outdoor recreation, and protect the public safety.	No inconsistency identified. The Project site is not designated for preservation as open space, and does not contain any natural resources.
	Objective 4.1: Retain agricultural open space as long as agricultural activities can be economically conducted, and are desired by agricultural interests, and provide for an orderly transition of agricultural lands to other urban and rural uses.	No inconsistency identified. The Project site does not contain important agricultural resources. The proposed Project seeks to implement the MVIAP, which designates the site for light industrial uses.
	Objective 4.2: Provide safe, affordable and accessible recreation facilities and programs to meet the current and future needs of Moreno Valley's various age and interest groups and promote the provision of private recreational facilities.	No inconsistency identified. The Project site is not designated for recreational use by the General Plan or MVIAP, and would not generate a new demand for recreational facilities within the City of Moreno Valley.
	Policy 4.2.17: Require new development to contribute to the park needs of the City.	No inconsistency identified. The City has enforced this policy through Ordinance No. 581, which requires parkland dedication or in-lieu fees in association with new residential development. As a light industrial development, the Project is not subject to parkland fees or dedication pursuant to Ordinance No. 581. Accordingly, this policy is not applicable to the

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		proposed Project.
	Objective 4.3: Develop a hierarchical system of trails which contribute to environmental quality and energy conservation by providing alternatives to motorized vehicular travel and opportunities for recreational equestrian riding, bicycle riding, and hiking, and that connects with major regional trail systems.	No inconsistency identified. Bikeways are designated by the General Plan for Krameria, Iris, and Heacock adjacent to the Project site. The Project design complies with all City roadway standards for the provision of required bike lanes, as well as sidewalk and sidewalk easements.
	Policy 4.3.1: The City's network of multiuse trails, including regional trails, community trails, and local feeder trails, shall (1) be integrated with recreational, residential and commercial areas, schools and equestrian centers; (2) provide access to community resources and facilities, and (3) connect urban populations with passage to hillsides, ridgelines, and other scenic areas.	No inconsistency identified. Sidewalks and bike lanes are provided as part of the Project as required by the City of Moreno Valley.
	Policy 4.3.3: All new development approvals shall be contingent on trail right-of-way dedication and improvement in accordance with the Master Plan of Trails (Figure 4-5).	No inconsistency identified. Bikeways are designated by the General Plan for Krameria, Iris, and Heacock adjacent to the Project site. The Project design complies with all City roadway standards for the provision of required bike lanes. Sidewalks also are provided as part of the Project as required by the City of Moreno Valley.
	Policy 4.3.4: In conjunction with all development review, the City shall consider multiuse trail access and traditional travel routes through the property.	No inconsistency identified. The City of Moreno Valley has reviewed the proposed Project's transportation design
	Policy 4.3.5: In conjunction with the review and approval of nonresidential developments, the City should consider the use of multiuse trail amenities such as hitching posts, benches, rest areas, and drinking facilities.	No inconsistency identified. The Project is an industrial business park and no multi-use trails are designated to traverse within or parallel to the Project site.
	Policy 4.3.7: Trail design and construction should take into consideration the safety and convenience of all trail users as the primary concern.	No inconsistency identified. Bikeways are designated by the General Plan for Krameria, Iris, and Heacock adjacent to the Project site. The Project design complies with all City roadway standards for the provision of required bike lanes and sidewalks.
	Policy 4.3.9: Unless otherwise specified due to fire department requirements, access or as established by a specific plan, city trails along roadways shall be ten (10) feet wide and shall be constructed with decomposed granite or equal material and	No inconsistency identified. There are no trail routes identified on site, with exception of the Class II and III bikeways along Iris Avenue, Heacock Street, and Krameria Avenue. Bikeways are not subject to the 10-foot width standard;

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	shall provide appropriate fencing or other devices where needed to delineate trails from vehicular rights-of-way.	accordingly, this policy is not applicable to the proposed Project.
	Policy 4.3.10: Where firefighting access is required, trails shall be 20' wide to meet the needs of the Fire Department and its equipment. Fire Department requirements shall be met in all conditions where access is required.	No inconsistency identified. There are no trail routes identified on site, with exception of the Class II and III bikeways along Iris Avenue, Heacock Street, and Krameria Avenue. Bikeways are not subject to the 20-foot width standard; accordingly, this policy is not applicable to the proposed Project.
	Policy 4.3.14: Where feasible, use drainage courses, utility rights-of-way and other such opportunities to incorporate trail and open space elements in the design of major development projects.	No inconsistency identified. This policy provides guidance to City staff in the development of trails and open space elements within drainage courses and utility corridors. There are no suitable utility corridors or drainages on site that would be available for use as trails or open space.
Circulation Element	Goal 5.1: Develop a safe, efficient, environmentally and financially sound, integrated vehicular circulation system consistent with the City General Plan Circulation Element Map, Figure 9-1, which provides access to development and supports mobility requirements of the system's users.	No inconsistency identified. The proposed Project would implement improvements to surrounding roadways in a manner generally consistent with Figure 9-1. However, the Project does propose to realign a portion of Krameria Avenue as part of PA11-0001 (General Plan Amendment) and PA11-004 (MVIAP Amendment). A Project-specific traffic impact analysis has been prepared (refer to Subsection 4.11, Traffic and Circulation), which shows that the proposed realignment of Krameria Avenue would not result in any significant impacts to the surrounding circulation network.
	Goal 5.2: Maintain safe and adequate pedestrian, bicycle, and public transportation systems to provide alternatives to single occupant vehicular travel and to support planned land uses.	No inconsistency identified. Bikeways are designated by the General Plan for Krameria, Iris, and Heacock adjacent to the Project site. The Project design complies with all City roadway standards for the provision of required bike lanes and sidewalks.
	Objective 5.1: Create a safe, efficient and neighborhood friendly street system.	No inconsistency identified. The proposed Project would implement improvements to surrounding roadways in a manner generally consistent with Figure 9-1. The Project proposes to realign and reclassify a portion of Krameria Avenue as part of PA11-0001 (General Plan Amendment) and PA11-004 (MVIAP Amendment) to improve the planned system by providing 90-degree intersections. A Project-specific traffic impact analysis has been prepared (*Technical Appendix J*), which shows that the proposed realignment of Krameria Avenue would not result in any significant impacts to the surrounding circulation network.
	Policy 5.1.1: Plan access and circulation of each development	No inconsistency identified. The proposed Project has been design to

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	project to accommodate vehicles (including emergency vehicles and trash trucks), pedestrians, and bicycles.	accommodate vehicles (including emergency vehicles and trash trucks), and would also afford access to pedestrians and bicycles via sidewalks and bikeways provided along adjacent roadways.
	Policy 5.1.2: Plan the circulation system to reduce conflicts between vehicular, pedestrian and bicycle traffic.	No inconsistency identified. Field observations documented in *Technical Appendix J* indicate nominal pedestrian and bicycle activity within the study area. The proposed Project has been design to accommodate pedestrians and bicycles via sidewalks and bikeways provided along adjacent roadways. Trucks accessing the Project are required to use approved truck routes.
	Policy 5.1.3: Require adequate off-street parking for all developments.	No inconsistency identified. As shown on Sheet A.01 of the Master Plot Plan, the proposed Project would provide more parking spaces than required by the City of Moreno Valley Municipal Code. The proposed Project would therefore provide adequate off-street parking.
	Policy 5.1.4: Driveway placement shall be designed for safety and to enhance circulation wherever possible.	No inconsistency identified. All driveways on site have been designed per City Standard 118C and would not pose any safety issues in the local area.
	Policy 5.1.5: Incorporate American Disability Act (ADA) and Title 24 requirements in roadway improvements as appropriate.	No inconsistency identified. All roadway and streetscape improvements proposed by the Project would be ADA compliant.
	Policy 5.1.6: Design new developments to provide opportunity for access and circulation to future adjacent developments.	No inconsistency identified. The Project site is abutted to the north by Iris Avenue and to the west by Heacock Street. Cosmos Street is proposed to be constructed along the eastern boundary and Krameria Avenue is proposed to be constructed through the Project site, connecting Cosmos Street and Heacock Street. There would be ample access to adjacent parcels.
	Policy 5.2.2: Feed short local streets into collectors.	No inconsistency identified. The Project does not propose the development of any local streets, although several Industrial Collectors (i.e., Krameria Avenue and Cosmos Street) are proposed that would provide access to nearby Arterials (i.e., Heacock Street and Iris Avenue).
	Policy 5.2.3: Encourage the incorporation of traffic calming design into local and collector streets to promote safe vehicle speeds.	No inconsistency identified. The design of realigned Krameria Avenue and Cosmos Street through the site encourages safe vehicle speeds. Cosmos Street is designed as a cul-de-sac, while Krameria Avenue through the site is designed with two 90-degree turns that would serve to lower traffic speeds.
	Policy 5.2.4: Design new subdivisions to minimize the	No inconsistency identified. The proposed Project has been designed to

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	disruptive impact of motor vehicles on local streets. Long, broad and linear streets should be avoided. Residential streets should be no wider than 40 feet, and should have an uninterrupted length of less than one half mile. Curvilinear streets and cul-de- sacs are preferred. Streets within the subdivision should be designed to facilitate access to residences and to discourage through traffic.	encourage Project-related traffic along Heacock Street, an Arterial roadway, while also limiting access to local streets. Residential uses are not proposed as part of the Project.
	Objective 5.3: Maintain Level of Service (LOS) "C" on roadway links, wherever possible, and LOS "D" in the vicinity of SR 60 and high employment centers. Figure 9-2 depicts the LOS standards that are applicable to all segments of the General Plan Circulation Element Map.	No inconsistency identified. The analysis provided in EIR Subsection 4.11 indicates that, following mitigation, all roadway links serving the Project would achieve an LOS "D" or better under Project buildout conditions.
	Policy 5.3.1: Obtain right-of-way and construct roadways in accordance with the designations shown on the General Plan Circulation Element Map and the City street improvement standards.	No inconsistency identified. The proposed Project would construct improvements to Heacock Street and Iris Avenue consistent with Arterial roadway standards. Krameria Avenue would be developed as an Industrial Collector, although this roadway would be realigned and reclassified as part of PA11-0001 (General Plan Amendment) and PA11-004 (MVIAP Amendment). Analysis of the roadway reclassification is provided in Subsection 4.11, which concludes that all affected roadway segments and intersections would operate at acceptable levels of service.
	Policy 5.3.2: Wherever feasible, promote the development of roadways in accordance with the City standard roadway cross-sections, as shown in Figure 9-3. Cross-sections range from two-lane undivided roadways to 8- lane divided facilities.	No inconsistency identified. All roadways proposed as part of the Project would be developed in accordance with City standards and General Plan Figure 9-3.
	Policy 5.3.6: Where new developments would increase traffic flows beyond the LOS C (or LOS D, where applicable), require appropriate and feasible mitigation measures as a condition of approval. Such measures may include extra right-of-way and improvements to accommodate left-turn and right-turn lanes at intersections, or other improvements.	No inconsistency identified. Appropriate mitigation measures are provided in EIR Subsection 4.11 to ensure that all roadway segments and intersections directly impacted by the proposed Project are mitigated to a LOS D under build out conditions.
	Policy 5.5.1: Space Collectors between higher classification roadways within development areas at appropriate one-quarter mile intervals.	No inconsistency identified. The Project proposes only one intersection of a Collector Roadway (Krameria Avenue, Industrial Collector) with an Arterial Roadway (Heacock Street). The intersection of Krameria Avenue at Heacock Street would be located approximately 1,800 feet south of the intersection of

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		Heacock Street and Iris Avenue, which exceeds one-quarter mile. The proposed intersection of Krameria Avenue at Heacock Street also would be located more then 0.5 miles north of the nearest intersection to the south at Mariposa Avenue.
	Policy 5.5.2: Provide dedicated left-turn lanes at all major intersections on minor arterials and higher classification roadways.	No inconsistency identified. As indicated in EIR Subsection 4.11, all study area intersections on minor arterials and higher classification roadways provide dedicated left-turn lanes where appropriate.
	Policy 5.5.3: Prohibit points of access from conflicting with other existing or planned access points. Require points of access to roadways to be separated sufficiently to maintain capacity, efficiency, and safety of the traffic flow.	No inconsistency identified. The Project's traffic study (*Technical Appendix J*) includes recommendations for driveway locations and required improvements, which would be enforced as part of the City's standard conditions of approval.
	Policy 5.5.4: Wherever possible, minimize the frequency of access points along streets by the consolidation of access points between adjacent properties on all circulation element streets, excluding collectors.	No inconsistency identified. The Project proposes a total of five driveways along Heacock Street and Iris Avenue, which are the only roadways abutting the site that are not collector roadways. These five driveways are the minimum number necessary to serve the proposed Project.
	Policy 5.5.5: Design streets and intersections in accordance with the Moreno Valley Municipal Code.	No inconsistency identified. All streets and intersections proposed as part of the Project have been designed in accordance with the Moreno Valley Municipal Code.
	Policy 5.5.6: Consider the overall safety, efficiency and capacity of street designs as more important than the location of on-street parking.	No inconsistency identified. Roadways proposed as part of the Project have been designed to promote safety, efficiency, and capacity. The Project provides more than the number of required off-street parking spaces for vehicles, and accommodates adequate parking for trucks.
	Policy 5.5.7: For developments fronting both sides of a street, require that streets be constructed to full width. Where new developments front only one side of a street, require that streets be constructed to half width plus an additional 12-foot lane for opposing traffic, whenever possible. Additional width may be needed for medians or left and/or right turn lanes.	No inconsistency identified. The Project abuts one side of Heacock Street and Iris Avenue, both of which are constructed as half-width roadways under existing conditions. Both of these roadways would be improved to their full-width sections as part of the Project, with the exception of the Heacock Street bridge over the Perris Valley Channel which is not a part of the proposed Project. The Project abuts one side of the north-south portion of Krameria Avenue, and abuts both sides of the east-west portion of Krameria Avenue. In accordance with this policy, the north-south segment of Krameria would be improved to its ultimate half-width standard, while the east-west portion of this roadway would be improved to its full-width standard. Proposed improvements along (realigned) Krameria Avenue and Cosmos will include an additional 12-

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		foot lane for opposing traffic.
	Policy 5.5.8: Whenever possible, require private and public land developments to provide on-site and off-site improvements necessary to mitigate any development-generated circulation impacts. A review of each proposed land development project shall be undertaken to identify project impacts to the circulation system. The City may require developers to provide traffic impact studies prepared by qualified professionals to identify the impacts of a development.	No inconsistency identified. A traffic study has been prepared for the Project and is included as *Technical Appendix J*. This study was reviewed by the City of Moreno Valley and all feasible mitigation measures to reduce the Project's significant traffic impacts have been imposed as Project design requirements or mitigation measures.
	Policy 5.5.9: Design curves and grades to permit safe movement of vehicular traffic per applicable Caltrans and Moreno Valley standards.	No inconsistency identified. All curves and grades proposed by the Project meet applicable City standards.
	Policy 5.5.10: Provide adequate sight distances for safe vehicular movement at all intersections and driveways.	No inconsistency identified. All driveways and intersections proposed by the Project provide for adequate sight distance in accordance with City standards.
	Policy 5.5.11: Implement National Pollutant Discharge Elimination System Best Management Practices relating to construction of roadways to control runoff contamination from affecting water resources.	No inconsistency identified. As indicated in EIR Subsection 4.8, Hydrology and Water Quality, the Project would be required to obtain a NPDES permit, and would be required to implement BMPs to control runoff contamination.
	Policy 5.6.1: Ensure that City arterials that provide access to and from March Inland Port are properly designed to accommodate projected traffic volumes, including truck traffic.	No inconsistency identified. The Project's proposed improvements to Heacock Street are in accordance with City design standards for Arterial roadways.
	Policy 5.6.2: Ensure that traffic routes to March Inland Port are planned to minimize impacts to City residential communities.	No inconsistency identified. The Project would improve Heacock Street along the Project frontage to its full-width standard as an Arterial, with the exception of the bridge over the Perris Valley Channel, which is not a part of the proposed Project. Improvements to Heacock Street would help minimize impacts to City residential communities by providing for a high-capacity thoroughfare that is part of the City's truck route.
	Policy 5.8.3: Encourage public transportation opportunities that address the particular needs of transit dependent individuals in the City such as senior citizens, the disabled and low-income residents.	No inconsistency identified. This policy provides guidance to City staff and decision-makers, and is not applicable to the proposed Project. As discussed in EIR Subsection 4.11, the Project study area is currently served by the Riverside Transit Agency (RTA). Although transit service is not currently available adjacent to the Project site, the Project design has set aside areas for future bus

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		turnouts.
	Policy 5.8.4: Ensure that all new developments make adequate provision for bus stops and turnout areas for both public transit and school bus service.	No inconsistency identified. As discussed in EIR Subsection 4.11, the Project study area is currently served by the Riverside Transit Agency (RTA) with bus services along Cactus Avenue, Indian Street, John F. Kennedy Drive, Iris Avenue, and Krameria Avenue through various routes. Although transit service is not currently available adjacent to the Project site, the Project design has set aside areas for future bus turnouts.
	Policy 5.8.5: Continue on-going coordination with transit authorities toward the expansion of transit facilities into newly developed areas.	No inconsistency identified. This policy provides guidance to City staff and decision-makers, and is not applicable to the proposed Project. As discussed in EIR Subsection 4.11, the Project study area is currently served by the Riverside Transit Agency (RTA). Although transit service is not currently available adjacent to the Project site, the Project design has set aside areas for future bus turnouts.
	Policy 5.9.1: Encourage walking as an alternative to single occupancy vehicle travel, and help ensure the safety of the pedestrian as follows: *(a) All new developments shall provide sidewalks in conformance with the City's streets cross-section standards, and applicable policies for designated urban and rural areas.* *(b) The City shall actively pursue funding for the infill of sidewalks in developed areas. The highest priority shall be to provide sidewalks on designated school routes.*	No inconsistency identified. All roadway improvements proposed as part of the Project would include five- or six-foot wide sidewalks or sidewalk easements, in accordance with the City's cross-section standards. The portion of this policy related to infill of sidewalks is not applicable to the proposed Project.
	Policy 5.9.2: Walkways shall be designed to minimize conflicts between vehicles and pedestrians.	No inconsistency identified. Sidewalks or sidewalk easements would be provided along all access roadways abutting the site, and pedestrian walkways internal to the development have been designed to minimize conflicts between pedestrians and vehicles.
	Policy 5.9.3: Where appropriate, provide amenities such as, but not limited to, enhanced paving, seating, and landscaping to enhance the pedestrian experience.	No inconsistency identified. The Project site and surrounding area is not identified by the City's General Plan or MVIAP as an area conducive to pedestrian activity, as the Project does not involve residential development. The

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		provision of these amenities is not appropriate for the Project.
	Policy 5.9.4: Require the provision of convenient and safe pedestrian access to buildings from the public sidewalk.	No inconsistency identified. As shown on the Project's proposed Master Plot Plan, pedestrian access from public sidewalks to on-site buildings has been accommodated via internal pedestrian walkways.
	Objective 5.10: Encourage bicycling as an alternative to single occupant vehicle travel for the purpose of reducing fuel consumption, traffic congestion, and air pollution. The Moreno Bikeway Plan is shown in Figure 9-4.	No inconsistency identified. The Project design complies with all City roadway standards for the provision of required bike lanes and sidewalks. Additionally, bike racks would be provided at each proposed building.
	Policy 5.10.1: Bikeways shall link residential neighborhood areas with parks, employment centers, civic and commercial areas, and schools.	No inconsistency identified. Bikeways are designated by the General Plan for Krameria, Iris, and Heacock adjacent to the Project site. The Project design complies with all City roadway standards for the provision of required bike lanes.
	Policy 5.10.2: Integrate bikeways, consistent with the Bikeway Plan, with the circulation system and maintain Class II and III bikeways as part of the City's street system.	No inconsistency identified. Bikeways are designated by the General Plan for Krameria, Iris, and Heacock adjacent to the Project site. The Project design complies with all City roadway standards for the provision of required bike lanes.
	Policy 5.10.4: Link local bikeways with existing and planned regional bikeways.	No inconsistency identified. Bikeways are designated by the General Plan for Krameria, Iris, and Heacock adjacent to the Project site. The Project design complies with all City roadway standards for the provision of required bike lanes. Their linkage to the City's larger bikeway system is beyond the scope of this Project.
	Objective 5.11: Eliminate obstructions that impede safe movement of vehicles, bicyclists, and pedestrians.	No inconsistency identified. The proposed Project would not introduce any obstructions that impede safe movement of vehicles, bicyclists, or pedestrians.
	5.11.1 Landscaping adjacent to City streets, sidewalks and bikeways shall be designed, installed and maintained so as not to physically or visually impede public use of these facilities. *(a) The removal or relocation of mature trees, street trees and landscaping may be necessary to construct safe pedestrian, bicycle and street facilities.* *(b) New landscaping, especially street trees shall be planted in such a manner to avoid overhang into streets, obstruction*	No inconsistency identified. Landscaping proposed as part of the Project would not obstruct pedestrian, bicycle, street facilities, traffic control devices, or site distances, nor would it create any other safety hazards.

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	of traffic control devices or sight distances, or creation of other safety hazards.	
	5.11.2 Driveways shall be designed to avoid conflicts with pedestrian and bicycle travel.	No inconsistency identified. Driveways proposed as part of the Project would not obstruct pedestrian or bicycle travel.
Safety Element	Goal 6.1: To achieve acceptable levels of protection from natural and man-made hazards to life, health, and property.	No inconsistency identified. As indicated in EIR Section 4.7, *Hazards and Hazardous Materials*, impacts from natural or man-made hazards would either not occur, or would be reduced to a level below significant with incorporation of the Mitigation Measures identified in EIR Section 4.6.7.
	Goal 6.2: To have emergency services which are adequate to meet minor emergency and major catastrophic situations.	No inconsistency identified. The Project site is adequately served by police and fire protection services, and the Project applicant would be required to pay Development Impact Fees (DIF) pursuant to City Ordinance 695, which would provide funding for police and fire protection facilities.
	Objective 6.1: Minimize the potential for loss of life and protect residents, workers, and visitors to the City from physical injury and property damage due to seismic ground shaking and secondary effects.	No inconsistency identified. As indicated in EIR Subsection 4.5, the Project has been designed so as to minimize the potential for loss of life and property damage associated with seismic activity.
	Policy 6.1.1: Reduce fault rupture and liquefaction hazards through the identification and recognition of potentially hazardous conditions and areas as they relate to the San Jacinto fault zone and the high and very high liquefaction hazard zones. During the review of future development projects, the City shall require geologic studies and mitigation for fault rupture hazards in accordance with the Alquist-Priolo Special Study Zones Act. Additionally, future geotechnical studies shall contain calculations for seismic settlement on all alluvial sites identified as having high or very high liquefaction potential. Should the calculations show a potential for liquefaction, appropriate mitigation shall be identified and implemented.	No inconsistency identified. A site-specific geotechnical report has been prepared for the Project site and is included as *Technical Appendix E*. As concluded in the geotechnical report, the potential for liquefaction hazards on the site is deemed low due to the depth of groundwater in the area (approximately 44 feet). The Project site is located outside of Alquist Priolo Special Studies Zone and the potential for damage due to direct fault rupture is considered unlikely. Future geotechnical evaluations also will be required in conjunction with grading and building permits, which would further ensure that the Project is not subject to adverse effects associated with seismic hazards.
	Policy 6.1.2: Require all new developments, existing critical and essential facilities and structures to comply with the most recent Uniform Building Code seismic design standards.	No inconsistency identified. The proposed Project has been designed in accordance with the applicable California Green Building Standards Code provisions for seismic design standards.

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
	Objective 6.2: Minimize the potential for loss of life and protect residents, workers, and visitors to the City from physical injury and property damage, and to minimize nuisances due to flooding.	No inconsistency identified. The proposed Project has been designed such that building pads would be located above the existing flood elevations, thereby ensuring that life and property would not be endangered during flood events.
	Policy 6.2.1: Permit only that development in 100- year floodplain that represents an acceptable use of the land in relation to the hazards involved and the costs of providing flood control facilities. Locate critical facilities, such as hospitals, fire stations, police stations, public administration buildings, and schools outside of flood hazard areas.	No inconsistency identified. As discussed in EIR Subsection 4.8, Hydrology and Water Quality, the proposed Project has been designed such that building pads would be located above the existing flood elevations, thereby ensuring that life and property would not be endangered during flood events.
	Policy 6.2.3: Maximize pervious areas in order to reduce increases in downstream runoff resulting from new development.	No inconsistency identified. The Project has been designed to incorporate detention basins that would ensure that runoff leaving the site under developed conditions approximates what occurs under existing conditions. Refer to EIR Subsection 4.8, Hydrology and Water Quality.
	Policy 6.2.4: Design, construct and maintain street and storm drain flood control systems to accommodate 10 year and 100 year storm flows respectively.	No inconsistency identified. The proposed Project has been designed such that building pads would be located above the existing flood elevations, and proposed drainage facilities have been designed to accommodate the 10 year and 100 year storm flows. Refer to EIR Subsection 4.8, Hydrology and Water Quality.
	Policy 6.2.5: The storm drain system shall conform to Riverside County Flood Control and Water Conservation District master drainage plans and the requirements of the Federal Emergency Management Agency.	No inconsistency identified. Storm drains proposed as part of the Project conform to the Riverside County Flood Control and Water Conservation District's master drainage plan and applicable FEMA requirements. Refer to EIR Subsection 4.8, Hydrology and Water Quality.
	Objective 6.3: Provide noise compatible land use relationships by establishing noise standards utilized for design and siting purposes.	No inconsistency identified. This objective provides guidance to City staff and decision-makers in formulating policies related to noise generating land uses.
	Policy 6.3.3: Where the future noise environment is likely to exceed 70 CNEL or exceed 70 CNEL due to overflights from the joint-use airport at March, new buildings containing uses that are not addressed under Policy 6.3.1 shall require insulation to achieve interior noise levels recommended in the March Air Reserve Base Air Installation Compatible Use Zone Report.	No inconsistency identified. Refer to EIR Subsection 4.10, Noise, which discloses that the Project site is not subject to aircraft noise levels over 70 CNEL.
	Policy 6.3.6: Building shall be limited in areas of sensitive	No inconsistencies identified. The only sensitive receptors surrounding the

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
	receptors.	Project site that could be impacted the Project are the residential neighborhoods located to the northeast and east of the site. Other approved industrial projects (Indian Business Park, PA07-0079, PA07-0080, PA07-121, P07-0093, and PA08-0018) and Moreno Valley Industrial Park (PA07-0035, PA07-0039, and PA08-0021), would be constructed closer to these residential areas than the proposed Project. There would be a significant and unmitigated impact associated with the Project's short-term construction noise during the period of time that the Project is under construction. The Project site is designated by the General Plan and the MVIAP for development and was therefore considered as part of the General Plan and evaluated by the General Plan EIR (Moreno Valley 2006b).
	Objective 6.4: Review noise issues during the planning process and require noise attenuation measures to minimize acoustic impacts to existing and future surrounding land uses.	No inconsistencies identified. An analysis of potential impacts associated with noise is provided in EIR Subsection 4.10, which concludes that there would be no long-term significant noise impacts associated with the Project as proposed. Regardless, the Project has been designed to include 9' to 14' walls around truck parking and loading areas and would install parapets on building roofs to block rooftop air conditioning units.
	Policy 6.4.1: Site, landscape and architectural design features shall be encouraged to mitigate noise impacts for new developments, with a preference for noise barriers that avoid freeway sound barrier walls.	No inconsistencies identified. The Project site is not located near a freeway and no freeway sound barrier walls are proposed. Although there would be no long-term significant noise impacts associated with the Project, the Project has been designed to include 9' to 14' walls around truck parking and loading areas screened by landscaping and would install parapets on building roofs to block rooftop air conditioning units.
	Objective 6.5: Minimize noise impacts from significant noise generators such as, but not limited to, motor vehicles, trains, aircraft, commercial, industrial, construction, and other activities.	No inconsistencies identified. An analysis of potential impacts associated with noise is provided in EIR Subsection 4.10, which concludes that there would be no long-term significant noise impacts associated with the Project as proposed, including from stationary sources.
	Policy 6.5.1: New commercial and industrial activities (including the placement of mechanical equipment) shall be evaluated and designed to mitigate noise impacts on adjacent uses.	No inconsistencies identified. An analysis of potential impacts associated with noise is provided in EIR Subsection 4.10, which concludes that there would be no long-term significant noise impacts associated with the Project as proposed, including from stationary sources. There would be a significant and unmitigated impact associated with the Project's short-term construction noise during the period of time that the Project is under construction. The Project site

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
		is designated by the General Plan and the MVIAP for development and was therefore considered as part of the General Plan and evaluated by the General Plan EIR (Moreno Valley 2006b). Construction noise would occur with any type of development on the Project site and is not associated with the Project's proposed land use.
	Policy 6.5.2: Construction activities shall be operated in a manner that limits noise impacts on surrounding uses.	Project construction activities would expose nearby residential properties to noise levels that exceed the City's Noise Ordinance standard. The mitigation measures given in EIR Subsection 4.10 would reduce construction-related noise impacts to surrounding areas to the greatest extent feasible.
	Objective 6.6: Promote land use patterns that reduce daily automotive trips and reduce trip distance for work, shopping, school, and recreation.	No inconsistency identified. The proposed Project is consistent with the land use designations applied to the property by the General Plan and MVIAP. The site is located along Heacock Street, which is an Arterial roadway that affords direct access to local and regional transportation facilities that access other land uses.
	Objective 6.7: Reduce mobile and stationary source air pollutant emissions.	No inconsistency identified. EIR Subsection 4.2, Air Quality, includes a detailed analysis of Project-related air quality emissions, and imposes mitigation measures to reduce these emissions to the greatest feasible extent.
	Policy 6.7.2: Encourage the financing and construction of park-and-ride facilities.	No inconsistency identified. No park-and-ride facilities are designated for the Project site.
	Policy 6.7.4: Locate heavy industrial and extraction facilities away from residential areas and sensitive receptors.	No inconsistency identified. The proposed Project involves the development of an industrial business park that does not include heavy industrial uses or extraction-related land uses. Accordingly, this policy is not applicable to the proposed Project.
	Policy 6.7.5: Require grading activities to comply with South Coast Air Quality Management District's Rule 403 regarding the control of fugitive dust.	No inconsistency identified. The proposed Project would be required to comply with SCAQMD's Rule 403 regarding fugitive dust as specified in Subsection 4.2, Air Quality.
	Policy 6.7.6: Require building construction to comply with the energy conservation requirements of Title 24 of the California Administrative Code.	No inconsistency identified. The proposed Project would be required to comply with Title 24 as specified in Subsection 4.6, Greenhouse Gas Emissions.
	Objective 6.8: As feasible given budget constrains, strive to maintain a police force with a ratio of one sworn officer for each	No inconsistency identified. This policy provides guidance to City staff and decision-makers, and the Project would be required to contribute DIF fees that

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
	1,000 residents.	are applied in part to police protection services.
	Objective 6.9: Reduce the risk and fear of crime through physical planning strategies that maximize surveillance opportunities and minimize opportunities for crime found in the present and future built environment, and by creating and maintaining a high level of community awareness and support of crime prevention.	No inconsistency identified. The proposed Project incorporates gated access and would feature security lighting, which would reduce the risk of crime on site. The remaining portions of this policy are not applicable to the proposed Project.
	Policy 6.9.2: Require well-lighted entrances, walkways and parking lots, street lighting in all commercial, industrial areas and multiple-family residential areas to facilitate nighttime surveillance and discourage crime.	No inconsistency identified. The Project includes decorative lighting elements at all entries, in addition to lighting along walkways, parking lots, and along abutting streets.
	Policy 6.9.3: Incorporate "defensible space" concepts into the design of dwellings and nonresidential structures, including, but not limited to configuration of lots, buildings, fences, walls and other features that facilitate surveillance and reinforce a sense of territorial control.	No inconsistency identified. Areas not proposed to be gated would be visible from adjacent roadways, including Krameria Avenue, Heacock Street, and Iris Avenue.
	Objective 6.10: Protect life and property from the potential short-term and long-term deleterious effects of the necessary transportation, use, storage treatment and disposal and hazardous materials and waste within the City of Moreno Valley.	No inconsistency identified. EIR Subsection 4.7, Hazards and Hazardous Materials, includes a detailed analysis of potential impacts from the storage, use, and disposal of hazardous materials associated with Project construction and long-term operation, and imposes mitigation measures to reduce potential impacts to a level below significant.
	Policy 6.10.1: Require all land use applications and approvals to be consistent with the siting criteria and other applicable provisions of the adopted Hazardous Waste Management Plan, which is also incorporated into and as part of the General Plan.	No inconsistency identified. The proposed Project would be consistent with the adopted Hazardous Waste Management Plan. Refer to EIR Subsection 4.7, Hazards and Hazardous Materials.
	Policy 6.10.2: Manage the generation, collection, storage, processing, treatment, transport and disposal of hazardous waste in accordance with provisions of the City of Moreno Valley's adopted Hazardous Waste Management Plan, which is also incorporated into and as part of the General Plan.	No inconsistency identified. The proposed Project is required to comply with all applicable local, state, and federal hazardous waste requirements and would be consistent with the adopted Hazardous Waste Management Plan. Refer to EIR Subsection 4.7, Hazards and Hazardous Materials.
	Policy 6.11.5: Minimize uncontrolled fires through support of weed abatement programs.	No inconsistency identified. The Project site is located in an urban area that is not subject to wildland fire hazards, and no fuel modification zones (“weed

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
		abatement") are required.
	Objective 6.14: Maintain the capacity to respond rapidly to emergency situations.	No inconsistency identified. The Project site would be adequately served by police and fire protection services (refer also to EIR Subsection 4.7).
	Policy 6.14.1: Locate fire stations in accordance with the Fire Station Master Plan as shown in Figure 6-1. The exact location of each fire station may be modified based on availability of land and other factors.	No inconsistency identified. The Project site is not identified for development with a fire station on Figure 6-1, and the area already is adequately served by fire protection facilities (refer also to EIR Subsection 4.7).
	Policy 6.14.2: Relate the timing of fire station construction to the rise of service demand in surrounding areas.	No inconsistency identified. The Project area already is adequately served by fire protection facilities (refer also to EIR Subsection 4.7).
	Objective 6.15: Ensure that property in or adjacent to wildland areas is reasonably protected from wildland fire hazard, consistent with the maintenance of a viable natural ecology.	No inconsistency identified. The proposed Project is not located in an area subject to wildland fire hazards; therefore, this objective and associated policies are not applicable to the proposed Project.
	Objective 6.16: Ensure that uses within urbanized areas are planned and designed consistent with accepted safety.	No inconsistency identified. The proposed Project was reviewed by the City Police and Fire Departments, both of which conclude that the Project adequately addresses public safety through design.
	Policy 6.16.2: Encourage the systematic mitigation of existing fire hazards related to land urban development or patterns of urban development as they are identified and as resources permit.	No inconsistency identified. As concluded in EIR Subsection 4.7, the proposed Project site is not subject to wildland fire hazards.
	Policy 6.16.3: Ensure that adequate emergency ingress and egress is provided for each development.	No inconsistency identified. Roadways planned as part of the Project accommodate adequate emergency ingress and egress.
	Policy 6.16.4: Within the safety zones (e.g. Air Crash Hazard Zones and Clear Zones) shown in Figure 6-5, residential uses shall not be permitted, and business uses shall be restricted to low intensity uses as defined in the March Air Reserve Base Air Installation Compatible Use Zone Report, as amended from time to time.	No inconsistency identified. As concluded in EIR Subsection 4.7, the proposed Project site is consistent with the March Air Reserve Base Air Installation Compatible Use Zone Report.
Conservation Element	Goal 7.1: To achieve the wise use of natural resources within the City of Moreno Valley, its sphere of influence and planning area.	No inconsistency identified. The proposed Project site is not identified as containing any substantial natural resource deposits.
	Objective 7.1: Minimize erosion problems resulting from	No inconsistency identified. As concluded in EIR Subsection 4.8, Hydrology

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
	development activities.	and Water Quality, the proposed Project would minimize erosion during construction to the maximum feasible extent.
	Policy 7.1.1: Require that grading plans include appropriate and feasible measures to minimize erosion, sedimentation, wind erosion and fugitive dust.	No inconsistency identified. As concluded in EIR Subsections 4.2, Air Quality, and 4.8, Hydrology and Water Quality, the proposed Project incorporates measures intended to minimize erosion, sedimentation, wind erosion, and fugitive dust to the maximum feasible extent.
	Policy 7.1.2: Circulation patterns within newly developing portions of Moreno Valley, particularly in hillside areas, should follow natural contours to minimize grading.	No inconsistency identified. The Project vicinity is relatively flat and does not comprise a "hillside area;" accordingly, this policy is not applicable to the proposed Project.
	Objective 7.2: Maintain surface water quality and the supply and quality of groundwater.	No inconsistency identified. As concluded in EIR Subsection 4.8, Hydrology and Water Quality, features have been incorporated into the Project's design to preclude water quality impacts during both construction and long-term operation. Refer to the mitigation measures provided in EIR Subsection 4.6, Hazards and Hazardous Materials, regarding measures required of the Project during construction to ensure that proper procedures are followed during the moving of on-site monitoring wells.
	Policy 7.2.1: New development may use individual wells only where an adequate supply of good quality groundwater is available.	No inconsistency identified. The Project will be served by a domestic water system and does not propose the use of wells.
	Policy 7.2.2: The City shall comply with the provisions of its permit(s) issued by the Regional Water Quality Control Board for the protection of water quality pursuant to the National Pollutant Discharge Elimination System.	No inconsistency identified. As concluded in EIR Subsection 4.8, Hydrology and Water Quality, the proposed Project would be consistent with the requirements of the City's NPDES permit.
	Policy 7.2.3: In concert with the water purveyor identify aquifer recharge areas and establish regulations to protect recharge areas and regulate new individual wells.	No inconsistency identified. The proposed Project site is not identified as an aquifer recharge area by the General Plan, MVIAP, or the Project's Water Supply Assessment (*Technical Appendix K1*).
	Objective 7.3: Minimize the consumption of water through a combination of water conservation and reuse.	No inconsistency identified. The Project is designed to meet the requirements of the Leadership in Energy and Environmental Design (LEED) program. Following final building inspection, the Project Applicant will seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute. Water conserving features are included as part of the Project's commitment to energy reduction. As concluded in EIR Subsection

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
		4.12, Utilities & Service Systems, the proposed Project would be adequately served with potable water. Recycled water is not currently available in the Project area.
	Policy 7.3.1: Require water conserving landscape and irrigation systems through development review. Minimize the use of lawn within private developments, and within parkway areas. The use of mulch and native and drought tolerant landscaping shall be encouraged.	No inconsistency identified. As shown on the landscape plans included as part of the Project's Master Plot Plan, drought tolerant landscaping has been incorporated into the Project's design. Areas proposed for lawns have been minimized to public gathering areas only.
	Policy 7.3.2: Encourage the use of reclaimed wastewater, stored rainwater, or other legally acceptable non-potable water supply for irrigation.	No inconsistency identified. Reclaimed wastewater is not currently available in the Project area.
	Objective 7.4: Maintain, protect, and preserve biologically significant habitats where practical, including the San Jacinto Wildlife Area, riparian areas, habitats of rare and endangered species, and other areas of natural significance.	No inconsistency identified. EIR Subsection 4.3, Biological Resources, includes a detailed analysis of impacts to biological resources, and concludes that such impacts either would not be significant or would be reduced to a level below significant with the incorporation of mitigation measures.
	Policy 7.4.1: Require all development, including roads, proposed adjacent to riparian and other biologically sensitive habitats to provide adequate buffers to mitigate impacts to such areas.	No inconsistency identified. EIR Subsection 4.3, Biological Resources, includes a detailed analysis of impacts to biologically sensitive habitats, and concludes that such impacts either would not be significant or would be reduced to a level below significant with the incorporation of mitigation measures.
	Policy 7.4.3: Preserve natural drainage courses in their natural state and the natural hydrology, unless the protection of life and property necessitate improvement as concrete channels.	No inconsistency identified. The only significant drainage occurring through the site is the Perris Valley Storm Channel, which already is concrete lined to provide for protection of life and property.
	Policy 7.4.5: The City shall fulfill its obligations set forth within any agreement(s) and permit(s) that the City may enter into for the purpose of implementing the Western Riverside County Multispecies Habitat Conservation Plan.	No inconsistency identified. As concluded in EIR Subsection 4.3, the proposed Project would be consistent with the MSHCP.
	Objective 7.5: Encourage efficient use of energy resources.	No inconsistency identified. The Project is designed to meet the requirements of the Leadership in Energy and Environmental Design (LEED) program in. Following final building inspection, the Project Applicant will seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute. As such the Project will make an efficient use of energy

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
		resources.
	Policy 7.5.1: Encourage building, site design, and landscaping techniques that provide passive heating and cooling to reduce energy demand.	No inconsistency identified. The Project is designed to meet the requirements of the Leadership in Energy and Environmental Design (LEED) program. Following final building inspection, the Project Applicant will seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute. Various aspects of building design, landscaping, and energy systems are designed to reduce energy demand.
	Policy 7.5.2: Encourage energy efficient modes of transportation and fixed facilities, including transit, bicycle, equestrian, and pedestrian transportation. Emphasize fuel efficiency in the acquisition and use of City-owned vehicles.	No inconsistency identified. The Project design complies with all City roadway standards for the provision of required bike lanes, as well as sidewalk and sidewalk easements. Bike racks also will be provided at each building. Although transit service is not currently available adjacent to the Project site, the Project design has set aside areas for future bus turnouts.
	Policy 7.5.3: Locate areas planned for commercial, industrial and multiple family density residential development within areas of high transit potential and access.	No inconsistency identified. As discussed in EIR Subsection 4.11, the Project study area is currently served by the Riverside Transit Agency (RTA) with bus services along Cactus Avenue, Indian Street, John F. Kennedy Drive, Iris Avenue, and Krameria Avenue through various routes. Although transit service is not currently available adjacent to the Project site, the Project design has set aside areas for future bus turnouts.
	Policy 7.5.5: Encourage the use of solar power and other renewable energy systems.	No inconsistency identified. The Project is designed to meet the requirements of the Leadership in Energy and Environmental Design (LEED) program. Following final building inspection, the Project Applicant will seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute. Various aspects of building design, landscaping, and energy systems are designed to reduce energy demand.
	Objective 7.6: Identify and preserve Moreno Valley's unique historical and archaeological resources for future generations.	No inconsistency identified. As concluded in EIR Subsection 4.4, Cultural Resources, the Project site does not contain any known historical or archaeological resources and their potential for discovery during Project construction is low. Mitigation measures are provided in Subsection 4.4 to ensure that any such resources that may be uncovered during Project construction are appropriately treated.
	Policy 7.6.1: Historical, cultural and archaeological resources shall be located and preserved, or mitigated consistent with	No inconsistency identified. As concluded in EIR Subsection 4.4, Cultural Resources, the Project site does not contain any known historical, cultural, or

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
	their intrinsic value.	archaeological resources and their potential for discovery during Project construction is low. Mitigation measures are provided in Subsection 4.4 to ensure that any such resources that may be uncovered during Project construction are appropriately treated.
	Policy 7.6.2: Implement appropriate mitigation measures to conserve cultural resources that are uncovered during excavation and construction activities.	No inconsistency identified. As concluded in EIR Section 4.4, *Cultural Resources*, the Project site does not contain any significant historical or archaeological resources. Mitigation measures are provided in Section 4.4 to ensure that any such resources are uncovered during Project construction are appropriately treated in accordance with state law and local requirements.
	Policy 7.6.3: Minimize damage to the integrity of historic structures when they are altered.	No inconsistency identified. The Project site does not contain any historic structures.
	Objective 7.7: Where practical, preserve significant visual features significant views and vistas.	No inconsistency identified. As concluded in EIR Subsection 4.1, Aesthetics, implementation of the proposed Project would not result in any significant impacts to significant visual features, views, or vistas.
	Policy 7.7.2: Require new electrical and communication lines to be placed underground.	No inconsistency identified. All electrical and communication lines proposed by the Project would be placed underground.
	Policy 7.7.3: Implement reasonable controls on the size, number and design of signs to minimize degradation of visual quality.	No inconsistency identified. The proposed Project would be consistent with the MVIAP signage policies, which were identified to implement this General Plan policy.
	Policy 7.7.6: Minimize the visibility of wireless communication facilities by the public. Encourage "stealth" designs and encourage new antennas to be located on existing poles, buildings and other structures.	No inconsistency identified. The proposed Project does not propose any visible wireless communication facilities; therefore, this policy is not applicable to the proposed Project.
	Objective 7.8: Maintain an adequate system of solid waste collection and disposal to meet existing and future needs.	No inconsistency identified. As concluded in EIR Section 4.12, the Project would be adequately served by solid waste collection and disposal.
	Policy 7.8.1: Encourage recycling projects by individuals, non-profit organizations, or corporations and local businesses, as well as programs sponsored through government agencies.	No inconsistency identified. This policy provides guidance to City staff and decision-makers, and is not applicable to the proposed Project. Additionally, the Project is required by the Project's Master Plot Plan (refer to General Note 9 on Sheet A 0.1) to accommodate trash enclosures that accommodate recycling bins.

Table 4.9-1 Moreno Valley General Plan Policy Consistency Analysis

GENERAL PLAN ELEMENT	GOAL/OBJECTIVE/POLICY	PROJECT CONSISTENCY DISCUSSION
Housing Element	All Goals, Objectives, and Policies.	No inconsistency identified. All of the goals, objectives, and policies of the General Plan's Housing Element relate to residential uses, including policies promoting the creation of affordable housing opportunities and housing for senior citizens. As a proposed light industrial development, the proposed Project would have no affect on the goals, objectives, or policies of the General Plan Housing Element.

Table 4.9-2 Analysis of Consistency with SCAG Regional Transportation Goals

RTP GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
RTP G1	Maximize mobility and accessibility for all people and goods in the region.	No inconsistency identified. As discussed in EIR Subsection 4.11, conditions of approval and mitigation measures have been or will be imposed to ensure that roadway and intersection improvements needed to accommodate Project traffic volumes are implemented concurrent with the proposed development.
RTP G2	Ensure travel safety and reliability for all people and goods in the region.	No inconsistency identified. EIR Subsection 4.11 evaluates Project-related traffic impacts and specifies the conditions of approval and mitigation measures have been or will be imposed to ensure that roadway and intersection improvements meet safety standards and operate as efficiently as feasible. With acceptable levels of service, travel safety and reliability of people and goods in the region would not be adversely affected by the Project. The Project study area is currently served by the Riverside Transit Agency (RTA) and although transit service is not currently available adjacent to the Project site, the Project design has set aside areas for future bus turnouts. Additionally, sidewalks and bikeways will be provided along the Project's public roadway frontages and bike racks will be installed at each building.
RTP G3	Preserve and ensure a sustainable regional transportation system.	No inconsistency identified. This policy would be implemented by cities and the County on a regional basis as part of the overall planning and maintenance of the regional transportation system. The Project would have no adverse effect on such planning or maintenance efforts.
RTP G4	Maximize the productivity of our transportation system.	No inconsistency identified. This policy would be implemented by cities and the County on a regional basis as part of comprehensive transportation planning efforts. The Project would be consistent with the City of Moreno Valley General Plan, which meets this goal to maximize productivity.
RTP G5	Protect the environment, improve air quality and promote energy efficiency.	No inconsistency identified. An analysis of the Project's environmental impacts is provided throughout this EIR, and mitigation measures are specified where warranted. Air quality is addressed in EIR Subsection 4.2, and mitigation measures have been incorporated to reduce, to the extent feasible, the Project's air quality impacts. Additionally, and as discussed in EIR Subsection 4.6, Greenhouse Gas Emissions, the Project will incorporate measures to reduce the Project's energy consumption. The Project is designed to meet the requirements of the Leadership in Energy and Environmental Design (LEED) program. Following final building inspection, the Project Applicant will seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute. Various aspects of building design, landscaping, and energy systems are designed into the Project to promote the efficient use of energy.
RTP G6	Encourage land use and growth patterns that complement our transportation investments and improve the cost-effectiveness of expenditures.	No inconsistency identified. The proposed Project site is located in an area where existing transportation investments are already located and public services already are available at the site. The March Air Reserve Base and the March Inland Port are located to the west, where there is substantial air transportation investment. Surrounding the other sides of the Project site are properties approved for development. To the east is the approved Indian Business Park (PA07-0079, PA07-0080, PA07-121, P07-0093, and PA08-0018) and to the north is the Moreno Valley Industrial Park (PA07-0035, PA07-0039, and PA08-0021). To the south is a vacant parcel not yet

Table 4.9-2 Analysis of Consistency with SCAG Regional Transportation Goals

RTP GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
		approved for development, beyond which is an existing industrial warehouse building, all of which are designed to include roadway investments as called for in the City of Moreno Valley's General Plan. As such, the Project will develop a property that complements existing and planned transportation investments.
RTP G7	Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies	No inconsistency identified. This policy provides guidance to City staff to monitor the transportation network and to coordinate with other agencies as appropriate.

Note: The list of mitigation measures from the 2008 Regional Transportation Plan Program Environmental Impact Report (2008 RTP PEIR) can be found at: http://www.scag.ca.gov/RTPpeir2008/final/addendum.htm.
Source: SCAG Regional Transportation Policies, May 8, 2008. (Refer to the following web site for more information: http://www.scag.ca.gov/rtp2004/2004/FinalPlan.htm.)

Table 4.9-3 Project Consistency with SCAG Compass/Growth Visioning Principles

GV #	GROWTH VISION POLICY	PROJECT CONSISTENCY DISCUSSION
Principle 1: Improve mobility for all residents		
GV P1.1	Encourage transportation investments and land use decisions that are mutually supportive.	No inconsistency identified. The proposed Project site is located in an area where existing transportation investments are located nearby (i.e., I-215, SR-60, Heacock Street, etc.). The Project site also is identified for development with business park/light industrial land uses as part of the approved MVIAP. Thus, transportation investments proposed by the Project would be supportive of and supported by other investments made in the surrounding area.
GV P1.4	Promote a variety of travel choices.	No inconsistency identified. The Project is proposed as an industrial business park consistent with the City of Moreno Valley General Plan and MVIAP. A majority of people traveling to and from the Project site will be to conduct business, including trucks accessing the Project's loading docks. As discussed in EIR Subsection 4.11, the Project study area is currently served by the Riverside Transit Agency (RTA) with bus services along Cactus Avenue, Indian Street, John F. Kennedy Drive, Iris Avenue, and Krameria Avenue through various routes. Although transit service is not currently available adjacent to the Project site, the Project design has set aside areas for future bus turnouts. Additionally, sidewalks and bikeways will be provided along the Project's public roadway frontages and bike racks will be installed at each building.
Principle 2: Foster livability in all communities		
GV P2.1	Promote infill development and redevelopment to revitalize existing communities.	No inconsistency identified. The March Air Reserve Base is located to the west and developed properties or properties approved for development are located to the north, south, and east. To the east is the approved Indian Business Park (PA07-0079, PA07-0080, PA07-121, P07-0093, and PA08-0018) and to the north is the Moreno Valley Industrial Park (PA07-0035, PA07-0039, and PA08-0021). To the south is a vacant parcel not yet approved for development, beyond which is an existing industrial warehouse building. As such, the Project is an infill project and is proposed to be developed as envisioned by the MVIAP.
GV P2.2	Promote developments that provide a mix of uses.	No inconsistency identified. Although the proposed Project does not include a mix of uses internally, it contributes to the mix of uses existing and planned in the City of Moreno Valley and surrounding areas. The Project is consistent with the approved MVIAP, which identifies this area of Moreno Valley as a location to increase the City's industrial employment base.
Principle 3: Enable prosperity for all people		
GV P2.3	Promote "people scaled," pedestrian-friendly (walkable) communities.	No inconsistency identified. The Project consists of a proposed light industrial development, which is not generally conducive to pedestrian activities. Nonetheless, the Project does include streetscape improvements along all of its public roadway frontages that include landscaping, sidewalks, and bikeways. The public streetscape would be separated from the Project's industrial uses by screen walls, berms, and landscaping that would convey a pedestrian friendly environment along the streetscape.

Table 4.9-3 Project Consistency with SCAG Compass/Growth Visioning Principles

GV #	GROWTH VISION POLICY	PROJECT CONSISTENCY DISCUSSION
GV P3.3	Ensure environmental justice regardless of race, ethnicity or income class.	No inconsistency identified. There are no aspects of the proposed Project that would subject persons of any particular race, ethnicity, or income class to adverse environmental conditions that are unique to such persons.
GV P3.4	Support local and state fiscal policies that encourage balanced growth.	No inconsistency identified. An individual development proposal does not have the ability to support or oppose local and state fiscal policies designed to encourage balanced growth. The Project proposes an industrial business park in the portion of the City of Moreno Valley that is designated for such development by the City's General Plan and MVIAP.
GV P3.5	Encourage civic engagement.	No inconsistency identified. There are no components of the proposed Project that could encourage (or discourage) civic engagement.
Principle 4: Promote sustainability for future generations		
GV P4.1	Preserve rural, agricultural, recreational and environmentally sensitive areas.	No inconsistency identified. The proposed Project site is not designated for rural, agricultural, or recreational land uses, and does not contain resources that would indicate the site is an environmentally sensitive area.
GV P4.2	Focus development in urban centers and existing cities.	No inconsistency identified. The proposed Project site is located within a portion of the City of Moreno Valley that is designated for development with industrial land uses. The site is served by an existing roadway network and adjacent to the City of Moreno Valley's designated truck route.
GV P4.3	Develop strategies to accommodate growth that uses resources efficiently, eliminate pollution and significantly reduce waste.	No inconsistency identified. The proposed Project site is located within a portion of the City of Moreno Valley that is designated for industrial development, adjacent to the March Air Reserve Base. This area is adjacent to other existing and planned developments and as such, would use existing infrastructure systems and services efficiently.
GV P4.4	Utilize "green" development techniques.	No inconsistency identified. The Project is designed to meet the requirements of the Leadership in Energy and Environmental Design (LEED) program. Following final building inspection, the Project Applicant will seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute. Various aspects of building design, landscaping, and energy systems are designed into the Project for the efficient use of resources.

Source: SCAG Compass/Growth Visioning Principles, June 2004. (Available on-line at: http://www.compassblueprint.org/about).

4.10 NOISE

The following analysis is based on two separate technical noise studies prepared by Urban Crossroads, Inc. The first study is entitled, "March Business Center, Noise Analysis, City of Moreno Valley, California," dated November 15, 2011 (*Technical Appendix I1*). The report considers potential noise impacts associated with construction and operation of the proposed Project. The second report is entitled "March Business Center EIR Supplemental Construction Noise Analysis," dated October 28, 2011 (*Technical Appendix I2*), which addresses a more detailed analysis of near-term construction noise levels.

4.10.1 EXISTING CONDITIONS

A. Study Area Description

The Project site, which is currently vacant, is located east of Heacock Street and south of Iris Avenue in the City of Moreno Valley. The Project Applicant is proposing approximately 1,484,407 square feet of industrial development with an opening year for analysis of 2016. As shown on Figure 2-1, adjacent land uses include the March Air Reserve Base to the west, existing single-family homes and vacant land to the north, vacant land to the east that has been approved for development as an industrial/warehousing project (beyond which are residential uses), and vacant land and existing industrial uses to the south. In addition, the Rainbow Ridge Elementary School (the closest existing non-residential sensitive receptor) is located just over 0.25 miles northeast of the Project site.

B. Noise Fundamentals

❑ Noise Definitions

Noise is simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. Because the range of sound that the human ear can detect is so large, the scale used to measure sound intensity is based on multiples of 10, the logarithmic scale. The unit of measure in which a sound intensity is described is the decibel (dB). Each interval of 10 dB indicates a sound energy 10 times greater than before, which is perceived by the human ear as being roughly twice as loud. A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise sources by discriminating against very low and very high frequencies of the audible spectrum; dBA is adjusted to reflect only those frequencies which are audible to the human ear. Due to the internal mechanism of the human ear and how it receives and processes noise, when two sound sources of equal intensity or power are measured together, their combined effect (intensity level) is 3 dBA higher than the level of either separately. Thus, two noise sources that individually produce 72 dBA will measure 75 dBA when the noise sources are combined (absent any other sound-altering factor) (Urban Crossroads 2011c 10).

The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA at approximately 100 feet (Urban Crossroads 2011c 10). Figure 4.10-1, *Typical Noise Levels and Their Subjective Loudness and Effects*, presents a summary of typical noise levels and their subjective loudness and effects.

Environmental noise descriptors are generally based on averages, rather than instantaneous noise levels. The most commonly used figure is the equivalent level (Leq). Leq represents a steady sound

level containing the same total energy as a time-varying level over a given measurement interval. Leq may represent any desired length of time; however, one hour is the most commonly used in environmental work. Consequently, Leq can vary depending upon the time of day. In traffic noise measurements, the noisiest hour of the day is considered the benchmark of a road's noise emissions; therefore, the peak hour Leq is the noise metric used by the California Department of Transportation (Caltrans) for all traffic noise impact analyses (Urban Crossroads 2011c 12).

Peak hour noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour levels may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24 hour noise level, is utilized (Urban Crossroads 2011c 12).

The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of five dB to sound levels in the evening from 7 p.m. to 10 p.m., and the addition of 10 dB to sound levels at night between 10 p.m. and 7 a.m. These additions are made to account for the noise sensitive time periods during the evening and nighttime hours when sound appears louder. CNEL does not represent the actual sound level heard at any particular time, but rather represents the total sound exposure (Urban Crossroads 2011c 12).

❑ Effects of Noise

Harmful effects of noise can include speech interference, sleep disruption, and loss of hearing. High background noise levels can affect performance and learning processes through: distraction; reduced accuracy; increased fatigue, annoyance, and irritability; the inability to concentrate; and sleep prevention. Several factors determine whether a particular noise will interfere with sleep. These factors include the noise level and characteristics, the stage of sleep, the individual's age, and motivation to waken (Urban Crossroads 2011c 10).

Approximately 10% of the population has a very low tolerance for noise and will object to any noise not of their own making. Consequently, even in the quietest environment, some complaints will occur. Another 25% of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. Despite this variability in behavior on an individual level, the population as a whole can be expected to exhibit the following responses to changes in noise levels. An increase or decrease of 1.0 dBA cannot be perceived except in carefully controlled laboratory experiments, a change of 3.0 dBA is considered "barely perceptible," and changes of 5 dBA are considered "readily perceptible" (Urban Crossroads 2011c 13-14).

❑ Traffic Noise Prediction

According to the *Highway Traffic Noise Analysis and Abatement Policy and Guidance* provided by the Federal Highway Administration, the level of traffic noise depends on three primary factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the vehicle mix within the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and a greater number of trucks. A doubling of the traffic volume, assuming that the speed and vehicle mix do not change, results in a noise level increase of 3 dBA. The vehicle mix on a given roadway may also have an effect on community noise levels. As the number of medium and heavy

trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise level impacts will increase. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires on the roadway (Urban Crossroads 2011c 12-13).

❑ Ground Absorption of Noise

To account for the ground-effect attenuation (absorption) of noise, two types of site conditions are commonly used in traffic noise models: soft site and hard site conditions. Soft site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. A drop-off rate of 4.5 dBA per doubling of distance is typically observed over soft ground with landscaping, as compared with a 3.0 dBA drop-off rate over hard ground such as asphalt, concrete, stone, and very hard packed earth (Urban Crossroads 2011c 13). Caltrans research has shown that the use of soft site conditions is more appropriate for the application of the FHWA traffic noise prediction model used in this analysis (Caltrans 1998).

❑ Noise Control and Noise Barrier Attenuation

Noise control is the process of obtaining an acceptable noise environment for a particular observation point or receptor by controlling the noise source, transmission path, receptor, or all three. This concept is known as the source-path-receptor concept. In general, noise control measures can be applied to any and all of these three elements (Urban Crossroads 2011c 13).

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receptor. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the view of the noise source (Urban Crossroads 2011c 13).

❑ Land Use Compatibility

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are considered to be more sensitive to noise intrusion than are commercial or industrial activities. Ambient noise levels can also affect the perceived desirability or livability of a development. For these reasons, land use compatibility with the noise environment is an important consideration in the planning and design process (Urban Crossroads 2011c 14).

C. Noise Analysis Methodology

❑ 24-Hour Noise Readings

Mobile, or transportation-related noise impacts, are measured using the 24-hour CNEL to assess the land use compatibility for community noise exposure. 24-hour noise readings for the Project were recorded on June 15 and 16, 2011 using three (3) Quest DL Pro data logging Type 2 noise dosimeters. All noise meters were programmed in "fast" mode to record noise levels in A-weighted form were equipped with a windscreen during all measurements (Urban Crossroads 2011c 19).

❑ Construction Noise Analysis Methodology

Short-term construction-related noise impacts were calculated using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA represents the state-of-the-art technology in the prediction of environmental noise. CadnaA has the ability to analyze the noise level of multiple types of noise sources and calculates the noise levels at any location using the spatially accurate project

grading plans. The program has the ability to analyze the noise level of multiple types of noise sources and to calculate the effects of topography, buildings and multiple barriers (Urban Crossroads 2011d 2).

For more information about the CadnaA model noise prediction model and how it calculates expected noise impact from each noise source to the noise receptors locations, refer to Technical *Appendix I2* of this EIR. To assess the worst-case construction noise conditions, the noise levels for each piece of the Project's equipment within each phase of construction were combined to represent the maximum construction noise level conditions. In practice, it is unlikely that all pieces of construction equipment would operate at the same time (Urban Crossroads 2011d 2).

❑ Construction Equipment Reference Noise Levels

In January 2006, the Federal Highway Administration (FHWA) published a national database of construction equipment reference noise emission levels. The database provides a comprehensive list of the noise generating characteristics for specific types of construction equipment. In addition, the database provides an acoustical usage factor to estimate the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation (Urban Crossroads 2011d 2).

Noise levels generated by heavy construction equipment can range from approximately 70 dBA to noise levels in excess of 100 dBA when measured at 50 feet. These noise levels diminish with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 78 dBA measured at 50 feet from the noise source to the receptor would be reduced to 72 dBA at 100 feet from the source to the receptor, and would be further reduced to 66 dBA at 200 feet from the source to the receptor (Urban Crossroads 2011d 2-3). The locations of the nearest sensitive receptors to the Project site are depicted on Figure 4.10-2, *Off-Site Noise Sensitive Receptors*.

❑ FHWA Traffic Noise Prediction Model

Future roadway noise impacts from vehicular traffic were projected using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108 (the "FHWA Model"). The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). Adjustments are then made to the REMEL to account for the roadway classification (e.g., collector, secondary, major, or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period (Urban Crossroads 2011c 23).

❑ Traffic Noise Prediction Model Inputs

Table 4.10-5, *Off-Site Roadway Parameters*, presents the FHWA Model roadway parameters used by Urban Crossroads, Inc. in the noise analysis. Per the recommendation of Caltrans, soft site conditions were used to develop the noise contours to analyze the traffic noise conditions in the study area. Table 4.10-6, *Average Daily Traffic (ADT) for Existing Conditions*, depicts the existing ADT for study area roadways. The Existing average daily traffic volumes presented in Table 4.10-6 are derived from the March Business Center Traffic Impact Analysis Report (*Technical Appendix J*).

Table 4.10-7, *Hourly Traffic Flow Distribution*, presents the hourly traffic flow distributions (vehicle mix) used for the noise analysis (which is reflective of the vehicle mix required by the Department of Public Health). The vehicle mix provides the hourly distribution percentages of automobile, medium trucks, and heavy trucks for input into the FHWA Model (Urban Crossroads 2011c 23).

D. Existing Noise Conditions

To determine the existing noise level environment, three (3) long-term 24-hour measurements were taken in the Project study area. Figure 4.10-3, *Noise Monitoring Locations*, provides the boundaries of the Project study area and the noise level measurement locations (locations L1 through L3). The noise level measurements were recorded by Urban Crossroads, Inc. on June 15 and 16, 2011, a typical Tuesday and Wednesday representing the typical ambient noise environment for the study area (Urban Crossroads 2011c 20). The results of the noise level measurements are presented in Table 4.10-8, *Existing Long-Term (Ambient) Noise Level Measurements*, and are summarized below.

- Site L1 is located near the western property line of the single-family homes along Indian Street, approximately 1,350 feet east of the Project site. The existing hourly noise levels at Site L1 range from 52.7 to 62.9 dBA Leq and produce a 24-hour CNEL noise level of 64.7 dBA.

- Site L2 is located north of Iris Avenue, approximately 100 feet from the northeast corner of the Project site at the existing single-family homes. The hourly noise levels at Site L2 range from 55.6 to 77.3 dBA Leq and produce a 24-hour CNEL noise level of 70.5 dBA CNEL.
- Site L3 is located approximately 650 feet south of the southwest corner of the Project site in the flight path of March ARB. The hourly noise levels at Site L3 range from 51.6 to 69.3 dBA Leq and produce a 24-hour CNEL noise level of 70.3 dBA CNEL.

The results of the noise level monitoring show that the existing exterior ambient noise levels at monitoring Sites L2 and L3 currently exceed exterior noise levels of 65 dBA CNEL (Urban Crossroads 2011c 19-21).

❑ Existing Noise Contours

Existing CNEL noise contours are shown for the 55, 60, 65, and 70 dBA noise levels in Table 4.10-9, *Existing Conditions Noise Contours*. Noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway. The noise contours do not take into account the effect of any existing noise barriers or topography that may affect ambient noise levels. Most of the off-site study area is currently developed or planned for development. Table 4.10-9 shows that the existing exterior noise levels for the roadway segments on Cactus Avenue, as well as the road segment of Heacock Street between Cactus Avenue and JFK Drive, experience exterior noise levels in excess of 65 dBA CNEL when measured at 100 feet from the roadway centerline (Urban Crossroads 2011c 27).

The segment of Cactus Avenue between I-215 and Frederick Street does not abut any noise sensitive land uses. There is an existing church facility near this segment (Strong Tower Apostolic Community Church, 22405 Goldencrest Drive #7B), but this church is located more than 500 feet from the centerline of Cactus Avenue. As shown on Table 4.10-9, noise levels along this segment would be below 65 dBA CNEL at a distance of 176 feet; therefore, traffic-related noise levels along

the segment of Cactus Avenue between I-215 and Frederick Street do not expose sensitive receptors to noise in excess of 65 dBA CNEL under existing conditions.

The southwestern corner of Cactus Avenue and Heacock Street once contained the March hospital building, which was demolished in March and April 2011. The March ARB has plans to replace this structure with the "March LifeCare Campus," which is proposed to be constructed southerly of North Avenue and is designed to feature a 550-bed hospital, medical office buildings, retail, a continuum of services for seniors with more than 700 beds, ambulatory care facilities, skilled nursing services, a healing institute and research and training facilities (Just 2011 and March JPA 2009). As shown in Table 4.10-9, the unmitigated transportation-related 65 dBA CNEL exterior noise level contour along the segment of Cactus Avenue between Frederick Street and Heacock Street would occur at a distance of approximately 188 feet from the centerline of Cactus Avenue. The March LifeCare Campus is located approximately 190 feet from the centerline of Cactus Avenue, indicating that noise levels from this segment of Cactus Avenue would not exceed 65 dBA CNEL based on the existing traffic noise conditions.

The segment of Heacock Street between Cactus Avenue and JFK Drive abuts residential land uses. As shown in Table 4.10-9, the 65 dBA CNEL contour extend approximately 100 feet from the centerline of Heacock Street, and currently expose the nearby residential units along this segment to noise levels in excess of 65 dBA CNEL (Urban Crossroads 2011c 27).

❑ Existing Vibration

Groundborne vibration is usually localized to areas within about 100 feet from the vibration source. There are no existing sources of groundborne vibration (such as a railroad line) on or within 100 feet of the Project site.

E. Existing Noise Standards (Policies and Regulations)

Local noise guidelines are often based on the broader guidelines established by state and federal agencies. Following is a description of the existing noise regulatory setting for the proposed March Business Center Project. Because the Project's traffic distribution (and associated vehicular noise) is projected to route through adjacent communities outside of the City of Moreno Valley, including the March Joint Powers Authority, the County of Riverside, and the City of Perris, the noise criteria for the City of Moreno Valley, City of Perris, and County of Riverside are presented below.

❑ California Office of Planning and Research General Plan Guidelines

The City of Moreno Valley General Plan does not include any standards for measuring impacts associated with traffic noise. Rather, noise is considered in the Environmental Safety section of the General Plan Safety Element. While the General Plan provides background and noise fundamentals, it does not identify criteria to assess the impacts associated with off-site transportation related noise impacts. Therefore, for purposes of evaluating traffic-related noise impacts within the City of Moreno Valley, the analysis in this EIR instead relies on the noise criteria derived from the standards provided in the *General Plan Guidelines*, a publication of the California Office of Planning and Research. These standards are used by many California cities and counties and specify the maximum noise levels allowable for new developments. A copy of the *General Plan Guidelines* is provided as Appendix 4.2 to the Project's Noise Impact Analysis (*Technical Appendix I1*) (Urban Crossroads 2011c 15).

The purpose of the transportation noise criteria is to protect, create, and maintain an environment free from noise and vibration that may jeopardize the health or welfare of sensitive receptors, or degrade quality of life. For the nearby noise sensitive areas, the exterior noise levels should remain below 65 dBA CNEL and for interior areas the noise levels should remain below 45 dBA CNEL. For purposes of analysis within this section, the closest noise sensitive uses within the Project's study area include the single-family homes that surround the proposed Project at varying distances, the Rainbow Ridge Elementary School, and the proposed March LifeCare Campus (Urban Crossroads 2011c 15).

❑ City of Moreno Valley Noise Ordinance

The Noise Ordinance included in Chapter 11.80 of the City of Moreno Valley's Municipal Code provides performance standards and noise control guidelines for determining and mitigating non-transportation or stationary noise source impacts.

Section 11.80.030.C, *Nonimpulsive Sound Decibel Limits*, provides the following restriction:

> *No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimpulsive sound which exceeds the limits set forth for the source land use category (as defined in Section 11.80.020) in Table 11.80.030-2 when measured at a distance of two hundred (200) feet or more from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property. Any source of sound in violation of this subsection shall be deemed prima facie to be a noise disturbance. (Moreno Valley n.d. Section 11.80.030.C)*

Table 11.80.030-2 of the City's Noise Ordinance, *Maximum Sound Levels (in dBA) For Source Land Uses*, shows that the daytime and nighttime standards for commercial uses (including the light industrial/warehouse uses proposed by the Project) are 65 dBA and 60 dBA, respectively (Moreno Valley n.d. Table 11.80.030-2).

The City of Moreno Valley also has established exterior noise limits to control noise impacts associated with construction activities. Noise Ordinance Section 11.80.030.D.7, *Construction and Demolitions*, states: "No person shall operate or cause operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of eight p.m. and seven a.m. the following day such that the sound there from creates a noise disturbance, except for emergency work by public service utilities or for other work approved by the city manager or designee" (Moreno Valley n.d. Section 11.80.030.D.7).

❑ County of Riverside General Plan Transportation Noise Standards

The County of Riverside General Plan Noise Element specifies the maximum noise levels allowable for new developments impacted by transportation noise sources such as arterial roads, freeways, airports, and railroads. For the purposes of this Project, the noise impacts associated with traffic are controlled by the General Plan Noise Element. The Noise Element includes standards for land use compatibility for community noise exposure. For single family residential areas, exterior noise levels should remain below 65 dBA CNEL, and interior noise levels should remain below 45 dBA CNEL (Riverside, County of 2003c).

The General Plan standards are derived from standards contained in the *General Plan Guidelines*, a publication of the California Office of Planning and Research. According to the General Plan's Noise Compatibility Matrix (Riverside County General Plan Table N-1), an ambient noise level of up to 65 dBA CNEL for residential uses and up to 70 dBA CNEL for commercial uses is considered "normally acceptable" (Riverside, County of 2003c Table N-1).

❑ City of Perris General Plan Noise Element

The City of Perris General Plan standards also are derived from standards contained in the *General Plan Guidelines*, a publication of the California Office of Planning and Research. The Noise Element includes standards for land use compatibility for community noise exposure. Goal 1 of the City's Noise Element requires that the State of California Noise/Land Use Compatibility Criteria shall be used in determining land use compatibility for new development. At different exterior noise levels, individual land uses are identified as "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable." The City of Perris General Plan's *Land Use/Noise Compatibility Guidelines*, which are presented as General Plan Exhibit N-1, are designed to ensure noise compatibility of proposed land uses with the predicted future noise environment and illustrate the ranges of allowable exterior noise levels for various land uses based on the 2003 State of California General Plan Guidelines (Perris, City of 2005).

The City of Perris utilizes the CNEL scale as the criterion for assessing the compatibility of residential land uses with transportation related noise sources. For noise sensitive uses such as residential uses, the exterior noise level standard is 65 dBA CNEL and the interior noise standard is 45 dBA CNEL. Commercial uses are not considered noise sensitive uses and are evaluated with respect to the Noise/Land Use Compatibility Criteria that defines an ambient noise level ranging from 65 dBA CNEL to 75 dBA CNEL as conditionally acceptable (Perris, City of 2005).

❑ March Joint Powers Authority General Plan Guidelines

The March Joint Powers Authority (JPA) is preparing an update to the March JPA General Plan, but the update was not adopted at the time the NOP for this EIR was released for public review (June 2011). Therefore, the March JPA General Plan (2007) applies, which addresses noise in its Noise/Air Quality Element. Although no are given for measuring impacts associated with traffic noise, the General Plan states that the JPA uses the Noise Compatibility Criteria established by the State Office of Noise Control [in the California State Department of Health Services] (March JPA 2007 3-20). These Office of Noise Control guidelines include noise exposure levels for both exterior and interior environments. The State indicates that locating housing units, hospitals and other sensitive receptors in areas where exterior ambient noise levels exceed 65 CNEL is undesirable. Interior noise levels are recommended to be at or below 45 dBA CNEL (Title 25 of the California Code of Regulations).

❑ Community Noise Assessment Criteria

While the CEQA Guidelines, City of Moreno Valley, City of Perris, County of Riverside, and March JPA noise standards provide direction on noise compatibility and establish noise standards by land use type, they do not define the levels at which increases above the ambient noise levels are considered substantial. However, the FHWA and Caltrans both identify changes in noise levels of greater than 3 dBA as "barely perceptible," while changes of 5 dBA are considered "readily perceptible" (Urban Crossroads 2011c 17).

In a community situation, the noise exposure is extended over a long time period, and changes in noise levels occur over years rather than the immediate comparison made in a laboratory situation. The level at which changes in community noise levels become discernible is likely to be some value greater than 1 dBA, and 3 dBA appears to be appropriate for most people (Urban Crossroads 2011c 18). On this basis, and for the purposes of the proposed Project's noise analysis, a substantial increase in noise levels attributable to operations of the Project would occur:

- If ambient conditions are below applicable standards, and Project-generated noise at receptor land uses would result in:
    - An excedance of the suggested land uses/noise compatibility guidelines for surface transportation sources presented in the long range plans of the City of Moreno Valley, City of Perris, County of Riverside, or March JPA (mobile sources); or
    - An excedance of the exterior noise standards defined in the City of Moreno Valley Noise Ordinance (area/stationary sources);
- If ambient noise conditions exceed applicable Noise Ordinance Standards and Project-generated noise would create a "barely perceptible" 3 dBA or greater permanent increase in ambient exterior noise levels.
    - If noise resulting from Project-related construction activities that exceeds the City of Moreno Valley Noise Ordinance.

4.10.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to noise if the Project or any Project-related component would:

1. *Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;*
2. *Expose persons to or generate excessive groundborne vibration or groundborne noise levels;*
3. *Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;*
4. *Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;*
5. *For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; or*
6. *For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.*

4.10.3 IMPACT ANALYSIS

Threshold 1:	***Would the Project expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***
Threshold 3:	***Would the Project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the Project?***
Threshold 4:	***Would the Project result in a substantially temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the Project?***

A. Short-Term Construction Noise Impacts

Construction activities associated with the Project, especially those involving heavy equipment, would initially create short-term noise increases in the vicinity of the Project site, representing a short-term affect on ambient noise levels. Noise generated by construction equipment, including trucks, graders, bulldozers, concrete mixers, and portable generators, can reach high levels. Grading activities typically represent one of the highest potential sources for noise impacts (Urban Crossroads 2011c 46).

As previously described in EIR Subsection 3.3.6.a, the Project site construction would occur in two phases. Parcel 1 would be completed first, and would involve site preparation and mass grading of the entire Project site (i.e., Parcels 1-4), installation of the master underground utility system (including off-site connections), fine site grading for Parcels 1-4, construction of the proposed building on Parcel 1 (including utility and service connections), and paving of Parcel 1. Phase 2 would involve the construction of buildings on Parcels 2, 3, and 4 and connecting them to the underground utility system, in addition to paving activities on Parcels 2, 3, and 4. Phase 1 is anticipated to be occupied by Year 2014, while Phase 2 would be occupied in Year 2016.

Provided below is a detailed description of the reference noise levels for equipment/activities that would be associated with Project construction. These reference noise levels are used as inputs in the construction-level noise analysis.

Site Preparation Reference Noise Levels

Site preparation activity is estimated to occur over a period of approximately four weeks or 20 working days, and only would occur during Phase 1 of Project construction. Table 4.10-1, *Site Preparation Reference Noise Levels*, shows that during the short-term preparation stage of construction, noise levels at 200 feet from site preparation activities are expected to reach 76.7 dBA Leq, with the 65 dBA contour occurring at a distance of 765 feet from site preparation activities (Urban Crossroads 2011d 3).

Mass Grading Reference Noise Levels

Grading activity is expected to last approximately six weeks or 30 working days, and only would occur during Phase 1 of the proposed Project. Table 4.10-2, *Mass Grading Reference Noise Levels*, shows that during the short-term grading stage of construction, noise levels at

200 feet from grading activities would reach 79.9 dBA Leq, and the 65 dBA contour would occur at a distance of 1,105 feet from grading activities (Urban Crossroads 2011d 3).

Building Construction Reference Noise Levels

Building construction activity is expected to last for approximately seven months during the first phase of construction on Parcel 1 and an additional seven months during the second phase of construction on Parcels 2, 3, and 4. Table 4.10-3, *Building Construction Reference Noise Levels*, shows that during the short-term building construction stage of construction, noise levels at 200 feet from construction activities would reach 77.7 dBA Leq, and the 65 dBA contour would occur at a distance of 863 feet from construction activities (Urban Crossroads 2011d 3).

Paving Reference Noise Levels

Paving activity is expected to last approximately six weeks or 30 working days during the first phase of construction and an additional six working-weeks or thirty days during the second phase of construction. Table 4.10-4, *Paving Construction Reference Noise Levels*, shows that during the short-term paving stage of construction, noise levels at 200 feet from paving activities would reach 75.0 dBA Leq, and the 65 dBA contour would occur at a distance of 633 feet from paving activities (Urban Crossroads 2011d 3).

As shown in Table 4.10-1 through Table 4.10-4, it is expected that the greatest potential for construction-related noise levels affecting nearby sensitive receptors would occur during mass grading in Phase 1. As indicated previously, the City of Moreno Valley's Noise Ordinance requires that nonimpulsive sound levels generated by commercial land uses ("commercial" also includes the Project's land uses) must not exceed 65 dBA at a distance of 200 feet. As presented in Table 4.10-2, the reference noise level during mass grading activities would reach 79.9 dBA Leq at a distance of 200 feet. However, the noise levels presented in Table 4.10-1 through Table 4.10-4 reflect reference noise levels that do not take into consideration intervening topography, barriers, or structures. In order to accurately predict the Project-related construction noise levels affecting off-site properties, construction related noise impacts were calculated using the CadnaA computer program; the results of this modeling effort are presented below.

In order to assess the short-term construction-related noise level impacts on neighboring land uses, nine (9) noise receptor locations were identified. The receptor locations surrounding the proposed Project site include the following land uses:

- North: Currently vacant land, zoned industrial
- Northeast: Existing single-family homes
- East: Currently vacant land, zoned industrial and existing single-family homes
- South: Currently vacant land and existing industrial land uses
- West: Heacock Street and March Air Reserve Base (runways)

Since the City of Moreno Valley Municipal Code does not specifically address construction noise, the noise level limits for the source land use category (i.e., commercial) when measured at a distance of 200 feet were used to assess the noise level impacts at each of the nine noise receptor locations, as representative examples of the overall impact (Urban Crossroads 2011d 4).

The expected construction noise level impacts for each phase were calculated using the CadnaA noise model that includes the noise level attenuation provided by the existing 6.0-foot high noise barrier along the western and southern boundary of the neighboring single-family residential community located to the northeast, north of Iris Avenue. Short-term construction noise levels at the noise sensitive receptors as well as the existing industrial use to the south were calculated and are summarized below (Urban Crossroads 2011d 4).

Phase 1 Construction Noise Level Impact Analysis

Phase 1 of the proposed Project includes site preparation and mass grading of the entire site as well as paving and building construction activities for Parcel 1. Figure 4.10-4 through Figure 4.10-7 depict the unmitigated exterior noise level contours for Phase 1 site preparation, mass grading, building construction, and paving, respectively. Table 4.10-10, *Phase 1 Construction-Related Noise Levels*, depicts the noise levels for each component of Phase 1 construction when measured at a distance of 200 feet. The construction noise analysis indicates that the unmitigated exterior noise level impacts for each component of Phase 1 construction activities would exceed the City of Moreno Valley Noise Ordinance limits (i.e., 65 dBA Leq at 200 feet) (Urban Crossroads 2011d 4). Additionally, Phase 1 construction would expose nearby residential properties located easterly of the Project site (and beyond the vacant parcel approved to be constructed as the Indian Business Park assuming that the business park is not constructed) to noise levels in excess of 65 dBA Leq (as graphically shown on Figure 4.10-4 through Figure 4.10-7). Therefore, construction of Phase 1 of the proposed Project would generate noise levels in excess of the standards established in the City's Noise Ordinance, which is evaluated as a near-term significant impact for which mitigation would be required. Additionally, Phase 1 construction activities would result in a substantial temporary or periodic increase in noise levels in the Project vicinity above levels existing without the Project, and this also represents a significant near-term impact of Project construction. Because Phase 1 construction activities would only occur over the near-term during construction of the proposed Project, construction activities would not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

Phase 2 Construction Noise Level Impact Analysis

Phase 2 of the March Business Center project would involve paving and building construction activities for Parcels 2 through 4. Figure 4.10-8 and Figure 4.10-9 provide the unmitigated exterior noise level contours for Phase 2 building construction and paving activities, respectively. Table 4.10-11, *Phase 2 Construction-Related Noise Levels*, depicts the noise levels for each component of Project construction when measured at a distance of 200 feet. The construction noise analysis indicates that the unmitigated exterior noise levels for Phase 2 building construction and paving activities would exceed the City of Moreno Valley Noise Ordinance standard (i.e., 65 dBA Leq at 200 feet) (Urban Crossroads 2011d 4). Therefore, construction of Phase 2 of the proposed Project would generate noise levels in excess of the standards established in the City's Noise Ordinance, which represents a near-term significant impact for which mitigation would be required. Additionally, Phase 2 construction activities would result in a substantial temporary or periodic increase in noise levels in the Project vicinity above levels existing without the Project, and this also represents a significant near-term impact of Project construction. Because Phase 2 construction activities would only occur over the near-term during construction of the proposed Project, construction activities would not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

Feasibility Evaluation of Temporary Noise Barrier (Construction Phases 1 and 2)

In order to mitigate the above-described short-term noise level impacts associated with Phase 1 of the proposed Project's construction schedule, a 20-foot high temporary noise barrier with a minimum length of 1,100 feet would need to be erected along the northern property line, and an additional 20-foot high temporary construction noise barrier with a minimum length of 2,600 feet would be required along the eastern property line. During construction of Phase 2 of the proposed Project, a 20-foot high temporary construction noise barrier with a minimum length of 300 feet would need to be erected along the northern property line of Parcel 2, and an additional 20-foot high temporary construction noise barrier with a minimum length of 800 feet would be required along the eastern property line. All temporary construction noise barriers would be required to have a minimum Sound Transmission Class (STC) rating of 15. According to Urban Crossroads, the Project's noise consultant, the erection of temporary barriers during Phases 1 and 2 of Project construction would reduce noise levels affecting residential property to below the Noise Ordinance standard of 65 dBA Leq when measured at a distance of 200 feet (Urban Crossroads 2011d 4-5).

The temporary construction noise barriers have been evaluated by the Project Applicant's construction consultant (Oltmans Construction Co.), which determined that the erection of such temporary construction barriers would be infeasible. A copy of the correspondence from Oltmans Construction Co. is provided in *Technical Appendix L*. Specifically, temporary noise barriers would substantially interfere with construction of the proposed Project during both phases of construction, as follows:

- Earthwork would be adversely affected, as the posts holding up the noise barriers would hinder and prevent access of on-site tractors moving site dirt adjacent to the barricades.

- Installation of the underground sewer, water, fire sprinkler, and storm drain lines would be severely and adversely affected. To enable any digging for these critical service lines, removal of the noise barricades would be necessitated as these lines both traverse and parallel the location of the proposed barricades.

- Placement and construction of all curbs, gutters, and sidewalks would require removal of the barricades as they would directly interfere with the construction efforts required to achieve their successful placement (refer to EIR Chapter 3.0 for a detailed description of the proposed Project).

- Landscaping efforts would be compromised due to the location of the proposed noise barriers, adversely affecting successful placement of trees, shrubs, and required irrigation as detailed on the construction plans for the Project (refer to EIR Chapter 3.0 for a detailed description of the proposed Project).

- Construction (and subsequent removal) of the temporary noise barriers would result in a considerable elongation in the duration of construction activities, extending the time that other construction-related effects would occur.

Based on the analysis provided above, it would not be feasible to construct 20-foot tall temporary noise barriers during Phases 1 and 2 of Project construction while accommodating construction activities that are necessary in order to implement the proposed Project. Even if temporary

construction barriers were erected, they would need to be engineered to resist wind loads and be dismantled periodically during construction activities as necessary to accommodate necessary construction activities near the site boundaries and within adjacent roadways; such temporary removal of the noise barriers would result in the exposure of nearby residential properties to noise levels in excess of the City Noise Ordinance standard (noise levels would be similar to those presented on Figure 4.10-4 through Figure 4.10-9). Therefore, construction of 20-foot tall temporary noise barriers during Phases 1 and 2 of Project construction is concluded to be infeasible. Please refer also to EIR Section 6.0, which discusses and considers alternatives to the proposed Project that would reduce or avoid the Project's temporary unmitigated impact due to construction noise.

B. Long-Term Operational Noise Impacts

❑ Transportation-Related Noise Impacts

Generally, traffic noise impacts are analyzed both to ensure that a project would not adversely impact the acoustic environment of the surrounding community and also to ensure that a project site is not exposed to an unacceptable level of noise resulting from the ambient noise environment acting upon the property.

The proposed Project would consist of industrial and warehouse business land uses and is not considered to be sensitive to noise exposure. As previously indicated, mobile-source related noise levels in the City of Moreno Valley are considered to be significant if they would exceed the thresholds recommended by the California Office of Planning and Research's *General Plan Guidelines*. These guidelines specify that industrial uses should not be exposed to noise levels above 75 dBA CNEL ("normally acceptable"). As shown in Table 4.10-12, *Existing Plus Project Conditions Off-Site Traffic-Related Noise Impacts*, with implementation of the proposed Project the projected noise contours for Iris Avenue (which has the highest noise levels among roadways that abut the site) would be 62.6 dBA CNEL at a distance of 100 feet. Therefore, future traffic-related noise would not expose people on the Project site to noise levels in excess of 75 dBA CNEL. Accordingly, traffic-related noise levels affecting the proposed Project site would be less than significant.

The proposed Project does, however, have the potential to cause or contribute to significant traffic-related noise volumes at off-site locations, which could potentially impact sensitive receptors. Tractor trailers transporting goods to and from the site would make up most of the noise generated on and off site. At Project buildout in Year 2016, the Project would consist of 1,380,246 square feet of high-cube/distribution warehouse use; 87,429 square feet of warehousing use; and 16,732 square feet of general light industrial use. According to the Traffic Impact Analysis (*Technical Appendix J*), the proposed Project would produce an estimated 4,400 daily vehicle trips, including 298 during the AM Peak Hour and 328 during the PM Peak Hour (refer to EIR Subection 4.11, Transportation and Traffic).

Noise contours for study area roadway segments were calculated by Urban Crossroads for existing conditions and are presented in Table 4.10-9. As previously indicated, under existing conditions, only the segment of Heacock Street between Cactus Avenue and JFK Drive is considered impacted by noise (due to the exposure of nearby residential units to noise levels in excess of 65 dBA CNEL) in the existing condition.

Urban Crossroads evaluated the potential noise impact that would result from the addition of Project-related traffic to the existing roadway network. Table 4.10-12 presents a comparison of the existing noise conditions to the noise conditions that would result with implementation of the proposed Project in the absence of cumulative developments or ambient growth. As shown, Project-related roadway noise increases along study area road segments would range from -0.3 dBA CNEL to 3.3 dBA CNEL (Urban Crossroads 2011c 29).

Although the Project would contribute more than 3.0 dBA CNEL to one roadway segment (San Michelle Road between Heacock Street and Indian Street), this roadway segment would not expose nearby land uses to noise levels in excess of 65 dBA CNEL. Project-related contributions to the remaining roadway segments would be less than 3.0 dBA CNEL. Therefore, a significant transportation-related noise impact would not occur under Existing Plus Project Conditions (Urban Crossroads 2011c 29 & 35).

In summary, long-term operation of the proposed Project would not generate a substantial permanent increase in transportation-related ambient noise levels, nor would Project-related traffic expose persons to permanent or periodic/temporary noise levels in excess of the standards established by the City of Moreno Valley, City of Perris, County of Riverside, or March JPA General Plans or by the *General Plan Guidelines*, a publication of the California Office of Planning and Research.

❑ Stationary Noise Impacts

The proposed Project would include 1,484,407 square feet of industrial and warehouse distribution development. Stationary noise impacts associated with operation of the Project would include idling trucks, delivery truck activities, loading dock activities, semi-truck movements, and air conditioning units. The projected noise levels used for analysis assume the worst-case noise environment with the loading docks, semi-truck movements, and roof-top air conditioning units all operating simultaneously. In reality, these noise levels will vary throughout the day. The stationary noise source locations expected on the Project site to be located closest to the nearest off-site sensitive receptor are shown on Figure 4.10-10, *Stationary Noise Impacts*, and summarized in Table 4.10-13, *Reference Noise Level Measurements* (Urban Crossroads 2011c 39).

Loading Dock Activities

In order to evaluate the noise impacts associated with semi-truck unloading/loading activities, reference noise level measurements were taken at a large commercial center located at the intersection of Goldenwest Street and Edinger Avenue in the City of Huntington Beach, CA by Urban Crossroads Inc. on April 14, 2011. The primary noises generated by semi-trucks unloading is the noise of the truck arriving, backing into the dock area, detaching the cab, attaching the cab to the empty trailer, and exiting the loading dock. The unmitigated noise level was measured at 77.3 dBA Leq at a distance of 20 feet from the semi-truck (Urban Crossroads 2011c 42).

Semi-Truck Movements

In order to evaluate the noise impacts associated with semi-truck movements along the northern property line, reference noise level measurements were taken at a large commercial center located at the intersection of Goldenwest Street and Edinger Avenue in the City of Huntington Beach, CA by Urban Crossroads Inc. on April 14, 2011. The measurement included the exiting of a semi-truck producing an unmitigated noise level of 69.5 dBA Leq at a distance of 30 feet from the semi-truck (Urban Crossroads 2011c 42).

Mechanical Ventilation Units

Rooftop mechanical ventilation units would be installed on the proposed buildings located within the Project site. To assess the mechanical ventilation system (packaged heat pump) noise impacts, typical outdoor sound power levels were provided by Trane (a manufacturer of HVAC systems). The noise ratings provided by Trane indicate that the packaged heat pumps of an air conditioning unit will produce unmitigated noise levels ranging from 75 to 82 dBA when measured at a distance of 3 feet (Urban Crossroads 2011c 42).

To predict the worst-case future noise environment, a continuous reference noise level of 82 dBA at 3 feet was used to represent the roof-top mechanical ventilation system. The type of air conditioning units that would be used for the Project's buildings is designed to provide cooling during the peak summer daytime periods, so it is unlikely that all units would operate continuously throughout the noise sensitive nighttime periods. Even though the mechanical ventilation system will cycle on and off throughout the day, the noise analysis assumes that it will run continuously to present the worst-case noise condition (Urban Crossroads 2011c 42).

Project-Related Stationary Source Noise Impacts

Based on the reference noise levels (Table 4.10-13), stationary source noise levels from the proposed Project have been calculated at a distance of 200 feet from the property line, which allows for a comparison with the noise standards provided in the City of Moreno Valley Noise Ordinance. Noise level projections were calculated based on the Project's Plot Plans (described in EIR Section 3.0) showing the spatial relationship between the potential on-site noise sources and the sensitive noise receptor locations. Table 4.10-14, *Project Only Stationary Source Impact Noise Level Projections*, presents the expected noise levels associated with the proposed Project at a distance of 200 feet from the property line. The stationary source noise level projections include, where appropriate, delivery truck noise, roof-top air conditioning units, and loading dock activities. Because the precise locations of roof-top air conditioning units are unknown at this time, in order to identify a "worst-case" noise condition, noise reduction due to the buildings' parapets has been excluded from the analysis of projected noise conditions presented in Table 4.10-14 (Urban Crossroads 2011c 43).

As indicated previously, the City of Moreno Valley Noise Ordinance requires that stationary source noise levels ("nonimpulsive sound") may not exceed 60 dBA during daytime hours or 55 dBA during nighttime hours. As shown in Table 4.10-14, the Project-only noise levels at a distance of 200 feet from the property line are expected to reach 48.5 dBA Leq. Therefore, long-term operation of the proposed Project would not exceed the City's standards for stationary noise impacts, and the impact would be less than significant (Urban Crossroads 2011c 43).

Threshold 2: Would the Project expose persons to or generate excessive groundborne vibration or groundborne noise levels?

The Project would not generate groundborne vibration, except for the potential for vibration to occur during the construction phase from the use of large construction equipment. According to the *Transportation and Construction-Induced Vibration Guidance Manual* prepared for Caltrans, ground-borne vibration from construction activities and equipment such as D-8 and D-9 Caterpillars bulldozers, earthmovers, and haul trucks at distances of 10 feet do not create vibration amplitudes

that cause structural damage to nearby structures. The proposed Project is not expected to employ any pile driving or rock blasting equipment during construction activities, and because the nearest receivers are located over 50 feet from the nearest point of construction activities, impacts from groundborne vibration during near-term construction would be less than significant (Urban Crossroads 2011c 54).

Under long-term conditions, operational activities of the proposed Project would not include nor require equipment, facilities, or activities that would result in perceptible groundborne vibration, thus creating no groundborne vibration impacts (Urban Crossroads 2011c 54).

Threshold 5: ***For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the project area to excessive noise levels?***

The project site is located east of March Air Reserve Base. According to the *Air Installation Compatible Use Zone Study for March Air Reserve Base* (Department of the Air Force 2005), and as presented on Figure 4.10-11, *March Reserve Air Base Noise Contours*, the Project site is located outside of the 65 dBA CNEL noise contour and only the northwestern corner of the site is located within the 60 dBA CNEL noise contour. According to the California Division of Aeronautics Noise Standards (California Code of Regulations, Title 21, Section 5000 et. seq.), a noise level of 65 dBA CNEL is considered the "…level of noise acceptable to a reasonable person residing in the vicinity of an airport." Residential land uses are considered more sensitive to noise than the light industrial/warehouse distribution uses proposed by the Project. Aircraft operations would not, therefore, expose people on the Project site to noise levels in excess of 65 dBA CNEL and impacts would be less than significant.

Threshold 6: ***For a project within the vicinity of a private airstrip, would the Project expose people residing or working in the project area to excessive noise levels?***

Although the Project site is adjacent to the March Air Reserve Base, this airfield is not a private airfield and there are no other private airfields or airstrips in the vicinity of the Project site. In addition, a private airstrip is not proposed as part of the Project. Therefore, the proposed Project would not expose people to excessive noise levels associated with operations at a private airstrip or helipad; no impacts would result from excessive noise generated by a private airstrip. There would be no impact.

4.10.4 CUMULATIVE IMPACT ANALYSIS

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects in the vicinity of the proposed Project site and resulting from full General Plan buildout in the City of Moreno Valley and surrounding areas.

The proposed Project is consistent with the property's land use designations as applied by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208), as well as the property's zoning designation. CEQA Guidelines §15183(a) mandates that projects which are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified, shall not require additional environmental review,

except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. In this case, the subject property was evaluated as part of an EIR certified in 1989 for Specific Plan 208 (State Clearinghouse Number 1988080813) and as part of the City's General Plan Program EIR certified in 2006 (State Clearinghouse Number 2000091075). Therefore, as mandated by CEQA Guidelines §15183(a), this EIR focuses on project-specific effects that are peculiar to the proposed March Business Center project and its 75.05-acre property. Regarding cumulative noise impacts, the Project has the potential to contribute to cumulative construction-related noise. Additionally, because the Project is proposing an amendment to the City of Moreno Valley General Plan's Circulation Element and the Specific Plan 208 Circulation Element, there is the potential for roadway segments affected by that change to experience different long-term transportation-related noise levels than given in the City of Moreno Valley's General Plan EIR. For near-term construction conditions, the potential for impacts to be cumulatively considerable is limited to the area immediately surrounding the Project site where other construction projects may be occurring simultaneously. For the analysis of potential impacts due to long-term traffic conditions, the analysis relies on the list of projects used for analysis in the Project's traffic study, which are presented in EIR Table 4.15-8 and shown on Figure 4.15-20 and are the roadway segments that would be affected by the Project's proposed amendment to the General Plan Circulation Element.

Thresholds 1, 3, and 4

A. Short-Term Cumulative Construction Noise Impacts

During both construction phases of the proposed Project, construction activities would produce noise levels that would exceed the City of Moreno Valley's Noise Ordinance, as presented in Table 4.10-1 through Table 4.10-4. The peak noise level anticipated during construction activities would occur during mass grading of the site in Phase 1 of the proposed Project, which would result in Project-related noise levels of 79.9 dBA Leq at a distance of 200 feet and would affect the existing residential uses located to the northeast of the proposed Project site. Additionally, mass grading activities during Phase 1 of the Project would expose nearby sensitive receptors (i.e., residences) located to the east of the proposed Project site to noise levels in excess of 65 dBA Leq. Project-related construction noise levels would exceed the Noise Ordinance standard of 65 dBA Leq at a distance of 200 feet for commercial land uses during daytime hours.

As indicated previously in EIR Section 2.3, lands located immediately to the north and east of the proposed Project site are currently undeveloped, but are approved for future development. Approximately 72 acres of land to the east of the Project site is approved for development as the Indian Business Park, while the 31-acre site to the north is approved to be developed as the Moreno Valley Industrial Park. As of June 2011 (when the NOP for this EIR was released for public review), construction of these developments had not commenced. In the event that construction activities occur on one or both of these properties within 200 feet of proposed Project site and simultaneous with Project-related construction activities, then cumulative noise levels affecting the existing neighborhood to the northeast could exceed the 79.9 dBA Leq noise levels that would occur as a direct result of Project-related construction activities. This is evaluated as a cumulatively significant impact because the resulting noise level would exceed the City of Moreno Valley standards. Additionally, such noise level increases would represent a cumulatively considerable substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project. However, because construction noise would be temporary in nature, Project

construction activities would not result in a cumulatively considerable substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

B. Long-Term Cumulative Operational Noise Impacts

❑ Transportation-Related Noise Impacts (Cumulative Conditions)

Table 4.10-15, *Year 2016 Conditions Off-Site Traffic-Related Impacts*, presents a comparison of the Year 2016 noise levels for study area roadway segments both with and without the addition of Project traffic. As shown in Table 4.10-15, Project-related contributions to traffic noise levels would range from -0.2 to 1.9 dBA CNEL. Accordingly, under Year 2016 Conditions, Project traffic would not result in an increase in projected noise levels on any study area roadway segments above 3.0 dBA CNEL. Therefore, Project traffic-related noise under Year 2016 Conditions would not expose persons to noise levels in excess of standards established in the City of Moreno Valley, City of Perris, County of Riverside, or March JPA, nor would Project-related traffic result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project. When compared to existing conditions (refer to Table 4.10-9), noise level increases in the cumulative Year 2016 condition along study area roadway segments would increase between 0.9 - 9.6 dBA CNEL; however, only seven (7) segments would exceed 65 dBA CNEL, and of which only one (1) segment would experience an increase of more than 3 dBA CNEL (Nandina Avenue between Heacock Street and Indian Street (69.2 dBA CNEL) than occurs under existing conditions. Because this roadway segment is planned to route through an industrial area with no noise-sensitive land uses, the cumulative noise increase of greater than 3.09 dBA would not be considered cumulatively significant and the Project's contribution (0.2 dBA) would not be cumulatively considerable. Accordingly, Project-related traffic noise would be less than significant under cumulative (Year 2016) conditions (Urban Crossroads 2011c 29).

Table 4.10-16, *General Plan Buildout Off-Site Traffic-Related Impacts*, presents a comparison of the noise conditions for study area roadway segments under General Plan buildout conditions both with and without the addition of Project traffic. As shown in Table 4.10-16, with the addition of Project traffic to the roadway network under cumulative (General Plan buildout) conditions, Project-related contributions to traffic-related noise levels would range from -1.3 to 0.3 dBA CNEL. The potential off-site traffic noise level impact decreases are due to changes in the roadway network which alter the distribution of traffic surrounding the Project site. Thus, under General Plan Buildout Conditions, Project-related traffic would not expose persons to noise levels in excess of standards established in the City of Moreno Valley, City of Perris, County of Riverside, and March JPA, nor would Project-related traffic result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project. Accordingly, Project-related traffic noise would be less than significant under General Plan Buildout Conditions (Urban Crossroads 2011c 29).

❑ Stationary Noise Impacts (Cumulative Conditions)

As indicated previously in Table 4.10-14, buildout of the proposed Project, which would involve the construction of 1,484,407 square feet of industrial and warehouse distribution development, would produce noise levels measuring approximately 48.5 dBA CNEL when measured at a distance of 200 feet. The potential for stationary noise impacts to be cumulatively considerable is limited to the area immediately surrounding the Project site, towards the northeast and east where there are existing sensitive receptors.

As indicated above, 72 acres of land to the east of the Project site is approved for development as the Indian Business Park, while the 31-acre site to the north is approved for development as the Moreno Valley Industrial Park. Land uses proposed as part of these developments would be similar in character to land uses proposed by the Project. The long-term operation of these off-site developments would be expected to produce operational noise levels that are similar to those of the proposed Project (i.e., 48.5 dBA at 200 feet). Assuming a worst-case condition where Project-related operational noise would combine with the noise from these off-site developments, the logarithmic sum of three equivalent noise sources with a level of 48.5 dBA would combine to produce a noise level of 53.3 dBA at a distance of 200 feet from the Project boundary. As such, under long-term cumulative conditions, cumulatively considerable operational noise levels would be below the Moreno Valley Noise Ordinance's daytime and nighttime standard for nonimpulsive sound (i.e., 60 dBA and 55 dBA, respectively) (Urban Crossroads 2011c 45).

Therefore, long-term operation of the proposed Project would not result in the exposure of sensitive receptors to cumulative noise levels in excess of the City's Noise Ordinance standards. Long-term operation of the proposed Project also would not result in a substantial cumulative increase in ambient noise levels. Furthermore, there are no components of the Project's long-term operational characteristics that could produce substantial amounts of temporary or periodic ambient noise levels that could impact nearby sensitive receptors. Accordingly, non-transportation related impacts due to long-term operation of the proposed Project under cumulative conditions would have a less than significant cumulative impact and the Project's contribution would be less than cumulatively considerable.

Threshold 2

As previously indicated, types of construction equipment that would be used to implement the proposed Project do not create vibration amplitudes that cause structural damage to nearby structures, and Project construction would not require the use of pile driving or rock blasting equipment that have the potential to generate excessive groundborne vibration or groundborne noise levels. There are no existing or projected sources of groundborne vibration immediately surrounding the Project site. The evaluation of other potential construction projects around the Project site similarly concluded that there would be no excessive groundborne vibration from their activities (City of Moreno Valley Indian Business Park MND, 2008). Accordingly, there would be no cumulative groundborne vibration impact and the Project's contribution to vibration, if any, would be less than cumulatively considerable.

There are no known sources of excessive groundborne vibration or groundborne noise within the immediate vicinity of the Project site. Under long-term operating conditions, the Project would not involve the use of equipment, facilities, or activities that would result in perceptible groundborne vibration. There would be no significant cumulative impact and the Project would have no potential to contribute to a long-term groundborne noise or vibration impact.

Threshold 5

The proposed Project does not involve the construction or operation of any public airports or public use airports. As indicated previously (refer also to Figure 4.10-11), the Project site is located outside of the 65 dBA noise contour for the adjacent March Reserve Air Base, and only the northwestern corner of the site is located within its 60 dBA CNEL noise contour. Airport-related noise levels affecting the Project site are not considered excessive; as such, nearby airport operations would not

expose future on-site workers to excessive noise levels. There are no conditions associated with the proposed Project that could result in contributing to airport noise or exposure additional people to unacceptable levels of airport noise. Accordingly, the Project would have no potential to cumulatively contribute to impacts associated with noise from a public airport or public use airport.

Threshold 6

There are no private airfields or airstrips in the vicinity of the proposed Project site, and the Project would not involve the construction or operation of such facilities. Therefore, implementation of the proposed Project would not expose people residing or working in the Project area to cumulatively excessive noise levels associated with private airstrips, and has no potential to cumulatively contribute to impacts associated with noise from a private airstrip.

4.10.5 APPLICABLE PROJECT REQUIREMENTS

The following is a requirement to which the Project would be required to adhere. Compliance with this requirement was assumed throughout the above noise analysis.

PR 4.10-1 The Project is required to comply with the City of Moreno Valley Noise Ordinance (Moreno Valley Municipal Code Chapter 11.80).

4.10.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Thresholds 1, 3, and 4: Significant Direct and Cumulative Impact (Short-Term). During construction of the Project, noise levels associated with Project construction activities would exceed levels given in the City of Moreno Valley Noise Ordinance. Existing sensitive receptors (residential homes) located northeast of the Project site would be impacted by temporary and intermittent construction noise when construction activities occur on the Project site within 1,105 feet of the northeastern corner of the property boundary. Additionally, in the event that Project construction activities occur simultaneously with construction activities on adjacent properties to the north or east, cumulative construction-related noise levels could be in excess of 79.9 dBA when measured at a distance of 200 feet from the property boundary.

Under long-term operating conditions, the Project would not generate traffic-related or stationary noise levels above the standards given in the City of Moreno Valley Noise Ordinance or in any adjacent jurisdiction's General Plan. Long-term impacts would be less than significant.

Threshold 2: Less than Significant Impact. Near-term construction activities and long-term operation of the proposed Project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels.

Threshold 5: Less than Significant Impact. The Project site is located within the influence area of the March Air Reserve Base (ARB) and its 60dBA noise contour, which is an acceptable noise level for the Project's proposed land uses. As such, the Project would not expose people to excessive noise levels associated with the operation of an airport.

Threshold 6: No Impact. There are no private airstrips in the vicinity of the Project site; as such, the Project has no potential to expose people residing or working in the area to excessive noise levels associated with operation of a private airstrip.

4.10.7 MITIGATION

MM 4.10-1 Prior to the issuance of any building or grading permits, the City of Moreno Valley Land Development Division and Building and Safety Division shall review building and grading plans to ensure that the following notes are included:

a) All construction activities, including but not limited to haul truck deliveries, shall be limited to between the hours of 7:00 a.m. and 8:00 p.m.

b) Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.

c) All stationary construction equipment shall be placed in such a manner so that emitted noise is directed away from the construction site's north and east property boundaries.

d) Equipment staging shall be located at a minimum distance of 1,105 feet from the northeastern corner of the Project site's property boundary, as measured from the Iris Avenue right-of-way.

e) All haul truck deliveries shall be limited to approved haul routes. Should alternate routes be necessary, haul trucks shall not use roadways that pass noise-sensitive land uses or residential dwellings unless approved by the City of Moreno Valley.

MM 4.10-2 Prior to the issuance of any building or grading permits, the Project applicant shall prepare a Construction Haul Route exhibit identifying all public and private roadways that will be used for haul truck deliveries. The Construction Haul Route exhibit shall explicitly prohibit the use of Iris Avenue. The Construction Haul Route exhibit shall be subject to review and approval by the Building and Safety Division. Once approved, copies of the Construction Haul Route exhibit shall be provided to all construction contractors, and all construction contractors shall ensure that haul truck deliveries utilize only City-approved haul routes. Should alternate routes be necessary, haul trucks shall not use roadways that pass noise-sensitive land uses or residential dwellings unless prior approval is granted by the City of Moreno Valley.

As previously indicated under the discussion and analysis of the Project's near-term construction-related noise impacts under Thresholds 1, 3, and 4, erection of temporary 20-foot tall temporary construction barriers could reduce construction-related noise impacting nearby residential uses to below the City's Noise Ordinance standard of 65 dBA Leq at 200 feet during portions of construction activities. However, the construction of such barriers was determined to be infeasible because they would substantially interfere with construction activities. Furthermore, erection of temporary construction barriers would not fully eliminate the Project's construction-related noise impacts during Phases 1 and 2 of construction, since the noise barriers would need to be removed periodically to accommodate construction activities along the Project boundary and within adjacent roadways, thereby exposing noise sensitive land uses to noise levels in excess of the City Noise Ordinance standard. Construction of a shorter construction noise barrier also would not be feasible as mitigation, since noise barriers only serve to reduce noise levels when they completely obstruct the line-of-site between the noise source and the receptor (Urban Crossroads 2011c 13). A noise barrier less than 20 feet in height would not obstruct the line-of-site between the proposed Project site and

residences located to the northeast, and would therefore fail to attenuate Project-related construction noise levels.

4.10.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Thresholds 1, 3, and 4: Significant Unavoidable Direct and Cumulative Impact (Short-Term). Project construction activities would expose nearby residential properties to noise levels that exceed the City's Noise Ordinance standard of 65 dBA Leq at a distance of 200 feet. Although implementation of Mitigation Measures MM 4.10-1 and MM 4.10-2 would result in a reduction in construction-related noise levels, these measures would not reduce construction-related noise levels to below the City Noise Ordinance standard. Additional feasible mitigation measures are not available to further reduce Project-related construction noise levels, resulting in a significant and unavoidable short-term impact.

Mitigation Measure MM 4.10-1(d) requires equipment staging to be located at a minimum distance of 1,105 feet from the northeastern corner of the Project site's property boundary would avoid the proposed Project's significant construction-related noise impact related to noise at equipment staging areas. As shown in Table 4.10-1 through Table 4.10-4, the worst-case construction-related noise levels would occur during mass grading activities. Table 4.10-2 indicates that noise levels associated with mass grading would be reduced to a level of 65 dBA Leq at a distance of 1,105 feet. As previously noted, the City's Noise Ordinance prohibits noise levels in excess of 65 dBA Leq at a distance of 200 feet from the property line. Therefore, requiring staging areas to be located at a minimum distance of 1,105 feet from the northeastern property line would ensure that noise levels associated with construction staging areas would not exceed the City's Noise Ordinance standard at off-site sensitive receptors located to the northeast. There are no other sensitive receptors located within 1,105 feet of the proposed Project site; therefore, implementation of Mitigation Measure MM 4.10-1(d) would avoid significant noise impacts associated with construction staging areas.

Table 4.10-1 Site Preparation Reference Noise Levels

EQUIPMENT TYPE	QUANTITY	USAGE FACTOR[1]	HOURS OF OPERATION[2]	REFERENCE NOISE LEVEL AT 50 FEET (DBA)	CUMULATIVE LEVEL AT 200 FEET (DBA)
Rubber Tired Dozer	3	40%	3.2	85.0	73.8
Tractor/Loader/Backhoe	4	40%	3.2	80.0	70.0
Water Truck	2	40%	3.2	84.0	71.0
				Cumulative Noise Levels at 200 Feet (dBA):	76.7
				Distance to 65 dBA Leq Contour (Feet):	765

1: Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.
2: Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.
Source: Urban Crossroads 2011d, Table 1.

Table 4.10-2 Mass Grading Reference Noise Levels

EQUIPMENT TYPE	QUANTITY	USAGE FACTOR[1]	HOURS OF OPERATION[2]	REFERENCE NOISE LEVEL AT 50 FEET (DBA)	CUMULATIVE LEVEL AT 200 FEET (DBA)
Excavator	2	40%	3.2	85.0	72.0
Grader	1	40%	3.2	85.0	69.0
Rubber Tired Dozer	2	40%	3.2	85.0	72.0
Scraper		40%	3.2	85.0	76.0
Tractor/Loader/Backhoe	2	40%	3.2	80.0	67.0
Water Truck	2	40%	3.2	84.0	71.0
				Cumulative Noise Levels at 200 Feet (dBA):	79.9
				Distance to 65 dBA Leq Contour (Feet):	1,105

1: Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.
2: Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.
Source: Urban Crossroads 2011d, Table 2.

Table 4.10-3 Building Construction Reference Noise Levels

EQUIPMENT TYPE	QUANTITY	USAGE FACTOR[1]	HOURS OF OPERATION[2]	REFERENCE NOISE LEVEL AT 50 FEET (DBA)	CUMULATIVE LEVEL AT 200 FEET (DBA)
Crane	2	16%	1.3	85.0	68.0
Forklift	3	40%	3.2	85.0	73.8
Generator	1	50%	3.2	82.0	66.0
Aerial Lift	2	20%	3.2	85.0	72.0
Tractor/Loader/Backhoe	3	40%	3.2	80.0	68.8
Welder	3	40%	3.2	73.0	61.8
				Cumulative Noise Levels at 200 Feet (dBA):	77.7
				Distance to 65 dBA Leq Contour (Feet):	863

1: Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.
2: Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.
Source: Urban Crossroads 2011d, Table 3.

Table 4.10-4 Paving Reference Noise Levels

EQUIPMENT TYPE	QUANTITY	USAGE FACTOR[1]	HOURS OF OPERATION[2]	REFERENCE NOISE LEVEL AT 50 FEET (DBA)	CUMULATIVE LEVEL AT 200 FEET (DBA)
Paver	2	40%	3.2	85.0	72.0
Paving Equipment	2	40%	3.2	82.0	69.0
Rollers	2	20%	1.6	85.0	69.0
				Cumulative Noise Levels at 200 Feet (dBA):	75.0
				Distance to 65 dBA Leq Contour (Feet):	633

1: Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.
2: Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.
Source: Urban Crossroads 2011d, Table 4.

Table 4.10-5 Off-Site Roadway Parameters

ROADWAY	SEGMENT LIMITS	ROADWAY CLASSIFI-CATION	VEHICLE SPEED (MPH)	SITE CONDITIONS
Cactus Avenue	I-215 to Frederick Street	Divided Major Arterial Reduced	50	Soft
	Frederick Street to Heacock Street	Divided Major Arterial Reduced	50	Soft
Iris Avenue	Heacock Street to Indian Street	Arterial	45	Soft
	Indian Street to Perris Boulevard	Arterial	45	Soft
Krameria Avenue	Cosmos Street to Perris Boulevard	Minor Arterial	40	Soft
San Michele Road	Heacock Street to Indian Street	Arterial	45	Soft
Nandina Avenue	Heacock Street to Indian Street	Minor Arterial	40	Soft
Harley Knox Boulevard	I-215 to Indian Street	Divided Arterial (6 Lanes)	50	Soft
	Indian Street to Perris Boulevard	Divided Arterial (6 Lanes)	50	Soft
Heacock Street	Alessandro Boulevard to Cactus Avenue	Arterial	45	Soft
	Cactus Avenue to JFK Drive	Arterial	45	Soft
	JFK Drive to Gentian Avenue	Arterial	45	Soft
	Gentian Avenue to Iris Avenue	Arterial	45	Soft
	Iris Avenue to Krameria Avenue	Arterial	45	Soft
	Krameria Avenue to San Michele Road	Arterial	45	Soft
	San Michele Road to Nandina Avenue	Arterial	45	Soft
Indian Street	San Michele Road to Nandina Avenue	Minor Arterial	40	Soft
	Nandina Avenue to Harley Knox Boulevard	Minor Arterial	40	Soft

Values based on the March Business Center Traffic Impact Analysis (*Appendix J).*
Source: Urban Crossroads 2011c, Table 6-1.

Table 4.10-6 Average Daily Traffic (ADT) for Existing Conditions

ROADWAY	SEGMENT	AVERAGE DAILY TRAFFIC (1,000S)
Cactus Avenue	I-215 to Frederick Street	32.3
	Frederick Street to Heacock Street	35.6
Iris Avenue	Heacock Street to Indian Street	10.8
	Indian Street to Perris Boulevard	13.3
Krameria Avenue	Cosmos Street to Perris Boulevard	1.9
San Michele Road	Heacock Street to Indian Street	1.5
Nandina Avenue	Heacock Street to Indian Street	1.2
Harley Knox Boulevard	I-215 to Indian Street	12.4
	Indian Street to Perris Boulevard	5.2
Heacock Street	Alessandro Boulevard to Cactus Avenue	12.2
	Cactus Avenue to JFK Drive	19.6
	JFK Drive to Gentian Avenue	15.1
	Gentian Avenue to Iris Avenue	12.7
	Iris Avenue to Krameria Avenue	2.3
	Krameria Avenue to San Michele Road	2.8
	San Michele Road to Nandina Avenue	1.4
Indian Street	San Michele Road to Nandina Avenue	3.1
	Nandina Avenue to Harley Knox Boulevard	6.0

Source: Urban Crossroads 2011c, Table 6-2.

Table 4.10-7 Hourly Traffic Flow Distribution

MOTOR VEHICLE TYPE	DAYTIME (7 A.M. - 7 P.M.)	EVENING (7 P.M. - 10 P.M.)	NIGHT (10 P.M. - 7 A.M.)	TOTAL % TRAFFIC FLOW
Automobiles	77.5%	12.9%	9.6%	97.42%
Medium Trucks	84.8%	4.9%	10.3%	1.84%
Heavy Trucks	86.5%	2.7%	10.8%	0.74%

Values reflect typical Southern California vehicle mix.
Source: Urban Crossroads 2011c, Table 6-3.

Table 4.10-8 Existing Long-Term (Ambient) Noise Level Measurements

MONITORING SITE	DESCRIPTION	PRIMARY NOISE SOURCE	HOURLY NOISE LEVELS (LEQ DBA)	DAILY NOISE LEVELS (DBA CNEL)
L1	Located near the western property line of the single-family homes along Indian Street, approximately 1,350 feet east of the proposed Project.	Traffic on Indian Street and aircraft at March ARB.	52.7 - 62.9	64.7
L2	Located approximately 100 feet across Iris Avenue from the northeast corner of the proposed Project site at the existing single-family homes.	Traffic on Iris Avenue and aircraft at March ARB.	55.6 - 73.3	70.5
L3	Located approximately 650 feet south of the southwest corner of the proposed project site in the flight path of March ARB.	Traffic on Heacock Street and aircraft at March ARB.	51.6 - 69.3	70.3

1: All noise measurements were taken by Urban Crossroads, Inc. on June 15-16, 2011 over a 24-hour period.
2: See Figure 4.10-3 for the location of monitoring sites.
Source: Urban Crossroads 2011c, Table 5-1.

Table 4.10-9 Existing Conditions Noise Contours

ROADWAY	SEGMENT	CNEL AT 100 FEET (DBA)	DISTANCE TO CONTOUR (FEET)[1]			
			70 DBA CNEL	65 DBA CNEL	60 DBA CNEL	55 DBA CNEL
Cactus Avenue	I-215 to Frederick Street	68.7	82	176	379	817
	Frederick Street to Heacock Street	69.1	87	188	405	872
Iris Avenue	Heacock Street to Indian Street	62.5	RW	66	142	315
	Indian Street to Perris Boulevard	63.4	RW	78	168	362
Krameria Avenue	Cosmos Street to Perris Boulevard	53.7	RW	RW	RW	82
San Michele Road	Heacock Street to Indian Street	53.9	RW	RW	RW	84
Nandina Avenue	Heacock Street to Indian Street	51.7	RW	RW	RW	60
Harley Knox Boulevard	I-215 to Indian Street	64.5	RW	93	199	430
	Indian Street to Perris Boulevard	60.7	RW	RW	112	241
Heacock Street	Alessandro Boulevard to Cactus Avenue	63.0	RW	74	159	342
	Cactus Avenue to JFK Drive	65.1	RW	101	218	469
	JFK Drive to Gentian Avenue	63.9	RW	85	183	394
	Gentian Avenue to Iris Avenue	63.2	RW	76	163	351
	Iris Avenue to Krameria Avenue	55.8	RW	RW	52	112
	Krameria Avenue to San Michele Road	56.6	RW	RW	59	128
	San Michele Road to Nandina Avenue	53.6	RW	RW	RW	81
Indian Street	San Michele Road to Nandina Avenue	55.8	RW	RW	52	113
	Nandina Avenue to Harley Knox Boulevard	58.7	RW	RW	82	176

1: RW = Location of the respective noise contour falls within the right-of-way of the road.
Source: Urban Crossroads 2011c, Table 7-1.

Table 4.10-10 Phase 1 Construction-Related Noise Levels

RECEPTOR	SITE PREPARATION	MASS GRADING	BUILDING CONSTRUCTION	PAVING
R1	64.7	**67.7**	**66.2**	64.0
R2	64.5	**67.5**	**66.0**	63.8
R3	60.7	63.7	61.9	59.7
R4	58.7	61.7	59.7	57.5
R5	68.0	**71.0**	**68.7**	**66.5**
R6	**68.7**	**71.7**	**69.2**	**67.0**
R7	**69.0**	**72.0**	**69.2**	**67.0**
R8	**68.4**	**71.4**	**67.7**	**65.5**
R9	**72.1**	**75.1**	**68.6**	**66.4**

1 Noise Level Contours Presented in Figure 4.10-4 through Figure 4.10-7.
2 Noise levels presented in **bold** exceed the City of Moreno Valley 65 dBA Leq at 200 feet noise level standard.
Source: Urban Crossroads 2011d, Table 5.

Table 4.10-11 Phase 2 Construction-Related Noise Levels

RECEPTOR	BUILDING CONSTRUCTION	PAVING
R1	54.0	51.1
R2	53.7	50.8
R3	53.7	50.8
R4	53.5	50.6
R5	64.2	61.3
R6	**66.2**	63.3
R7	**67.3**	64.4
R8	**68.5**	**65.6**
R9	**74.4**	**71.5**

1 Noise Level Contours Presented in Figure 4.10-8 and Figure 4.10-9.
2 Noise levels presented in **bold** exceed the City of Moreno Valley 65 dBA Leq at 200 feet noise level standard.
Source: Urban Crossroads 2011d, Table 6.

Table 4.10-12 Existing Plus Project Conditions Off-Site Traffic-Related Noise Impacts

ROADWAY	SEGMENT LIMITS	CNEL AT 100 FEET (DBA)			POTENTIALLY SIGNIFICANT IMPACT?
		NO PROJECT	WITH PROJECT	PROJECT CONTRIBUTION	
Cactus Avenue	I-215 to Frederick Street	68.7	68.9	0.2	NO
	Frederick Street to Heacock Street	69.1	69.3	0.2	NO
Iris Avenue	Heacock Street to Indian Street	62.5	62.6	0.1	NO
	Indian Street to Perris Boulevard	63.4	63.5	0.1	NO
Krameria Avenue	Cosmos Street to Perris Boulevard	53.7	54.1	0.4	NO
San Michele Road	Heacock Street to Indian Street	53.9	57.2	3.3	NO
Nandina Avenue	Heacock Street to Indian Street	51.7	52.0	0.3	NO
Harley Knox Boulevard	I-215 to Indian Street	64.5	65.1	0.6	NO
	Indian Street to Perris Boulevard	60.7	61.0	0.3	NO
Heacock Street	Alessandro Boulevard to Cactus Avenue	63.0	63.1	0.1	NO
	Cactus Avenue to JFK Drive	65.1	65.5	0.4	NO
	JFK Drive to Gentian Avenue	63.9	64.5	0.6	NO
	Gentian Avenue to Iris Avenue	63.2	63.8	0.6	NO
	Iris Avenue to Krameria Avenue	55.8	58.7	2.9	NO
	Krameria Avenue to San Michele Road	56.6	58.8	2.2	NO
	San Michele Road to Nandina Avenue	53.6	53.3	-0.3	NO
Indian Street	San Michele Road to Nandina Avenue	55.8	57.8	2.0	NO
	Nandina Avenue to Harley Knox Boulevard	58.7	59.8	1.1	NO

Note: A significant impact is considered both a level above 65 dBA CNEL and an increase greater than 3.0 dBA.
Source: Urban Crossroads 2011c, Table 7-7.

Table 4.10-13 Reference Noise Level Measurements

NOISE SOURCE	DURATION (MINUTES: SECONDS)	DISTANCE FROM SOURCE (FEET)	NOISE SOURCE HEIGHT (FEET)	DROP-OFF RATE[3] (LEQ DBA)	NOISE LEVEL (LEQ DBA)
Loading Dock Activites[1]	1:00	20.0	8.0	6.0	77.3
Semi-Truck Enter/Exiting[1]	1:00	30.0	8.0	6.0	69.5
Air Conditioning Units[2]	2:00	100.0	3.0	6.0	51.8

1: As measured by Urban Crossroads, Inc. on April 14, 2011 at a large commercial center located at the intersection of Goldenwest Street and Edinger Avenue in the City of Huntington Beach, CA.
2: Data provided by Split System Cooling Product Data, Trane, July 2010.
3: Noise level (dBA) drop-off rate per doubling of distance.
Source: Urban Crossroads 2011c, Table 8-1.

Table 4.10-14 Project Only Stationary Source Impact Noise Level Projections

NOISE SOURCE	REFERENCE NOISE LEVEL DISTANCE	REFERENCE NOISE LEVEL (DBA)	DISTANCE FROM SOURCE TO PROPERTY LINE (FEET)	SOURCE NOISE LEVEL AT PROPERTY LINE (DBA)	REFERENCE NOISE LEVEL AT 200 FEET FROM PROPERTY LINE
Loading Dock Activities	100'	51.8	140.0	48.9	42.9
Semi-Truck Movements	30'	69.5	60.0	63.5	47.0
Air Conditioning Units	20'	77.3	320.0	53.2	33.2
Overall Unmitigated Noise Level at 200 Feet from Property Line					**48.5**

Source: Urban Crossroads 2011c, Table 8-2.

Table 4.10-15 Year 2016 Conditions Off-Site Traffic-Related Noise Impacts

ROADWAY	SEGMENT LIMITS	CNEL AT 100 FEET (DBA)			POTENTIALLY SIGNIFICANT IMPACT?
		NO PROJECT	WITH PROJECT	PROJECT CONTRIBU-TION	
Cactus Avenue	I-215 to Frederick Street	70.9	71.4	0.5	NO
	Frederick Street to Heacock Street	71.1	71.2	0.1	NO
Iris Avenue	Heacock Street to Indian Street	63.4	63.5	0.1	NO
	Indian Street to Perris Boulevard	64.2	64.3	0.1	NO
Krameria Avenue	Cosmos Street to Perris Boulevard	56.4	58.7	0.3	NO
San Michele Road	Heacock Street to Indian Street	62.9	63.5	0.6	NO
Nandina Avenue	Heacock Street to Indian Street	57.8	57.8	0.0	NO
Harley Knox Boulevard	I-215 to Indian Street	69.0	69.2	0.2	NO
	Indian Street to Perris Boulevard	64.4	64.5	0.1	NO
Heacock Street	Alessandro Boulevard to Cactus Avenue	65.0	65.1	0.1	NO
	Cactus Avenue to JFK Drive	67.0	67.3	0.3	NO
	JFK Drive to Gentian Avenue	66.1	66.5	0.4	NO
	Gentian Avenue to Iris Avenue	65.3	65.7	0.4	NO
	Iris Avenue to Krameria Avenue	61.4	63.3	1.9	NO
	Krameria Avenue to San Michele Road	62.8	63.4	0.6	NO
	San Michele Road to Nandina Avenue	55.4	55.2	-0.2	NO
Indian Street	San Michele Road to Nandina Avenue	63.1	63.5	0.4	NO
	Nandina Avenue to Harley Knox Boulevard	64.7	65.0	0.3	NO

Note: A significant impact is considered both a level above 65 dBA CNEL and an increase greater than 3.0 dBA.
Source: Urban Crossroads 2011c, Table 7-8.

Table 4.10-16 General Plan Buildout Off-Site Traffic-Related Noise Impacts

ROADWAY	SEGMENT LIMITS	CNEL AT 100 FEET (DBA)			POTENTIALLY SIGNIFICANT IMPACT?
		NO PROJECT	WITH PROJECT	PROJECT CONTRIBU-TION	
Cactus Avenue	I-215 to Frederick Street	--	--	--	--
	Frederick Street to Heacock Street	--	--	--	--
Iris Avenue	Heacock Street to Indian Street	63.6	63.9	0.3	NO
	Indian Street to Perris Boulevard	65.4	65.4	0.0	NO
Krameria Avenue	Cosmos Street to Perris Boulevard	61.7	60.4	-1.3	NO
San Michele Road	Heacock Street to Indian Street	--	--	--	--
Nandina Avenue	Heacock Street to Indian Street	--	--	--	--
Harley Knox Boulevard	I-215 to Indian Street	--	--	--	--
	Indian Street to Perris Boulevard	--	--	--	--
Heacock Street	Alessandro Boulevard to Cactus Avenue	--	--	--	--
	Cactus Avenue to JFK Drive	--	--	--	--
	JFK Drive to Gentian Avenue	--	--	--	--
	Gentian Avenue to Iris Avenue	66.9	66.6	-0.3	NO
	Iris Avenue to Krameria Avenue	65.9	65.4	-0.5	NO
	Krameria Avenue to San Michele Road	65.9	65.3	-0.6	NO
	San Michele Road to Nandina Avenue	--	--	--	--
Indian Street	San Michele Road to Nandina Avenue	--	--	--	--
	Nandina Avenue to Harley Knox Boulevard	--	--	--	--

Note: A significant impact is considered both a level above 65 dBA CNEL and an increase greater than 3.0 dBA.
Source: Urban Crossroads 2011c, Table 7-9

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		SPEECH INTERFERENCE
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

SOURCE: NOISE TECHNICAL SUPPLEMENT BY CALTRANS

Source: Urban Crossroads (11-15-11)

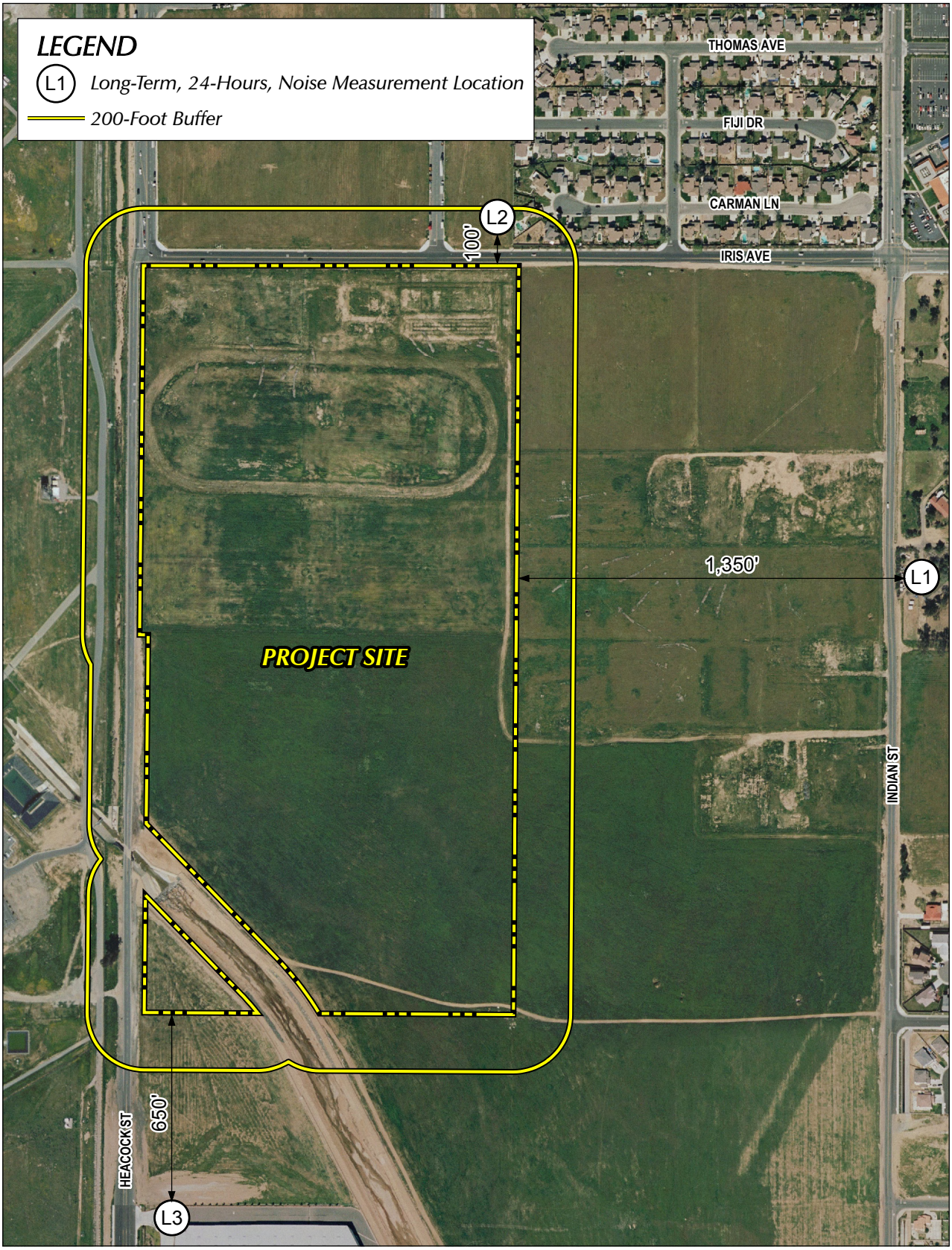
Not to Scale

FIGURE 4.10-1
Typical Noise Levels and Their Subjective Loudness and Effects

Source: RCTLMA (2011), Eagle Aerial (2008), Urban Crossroads (2011)

Figure 4.10-2

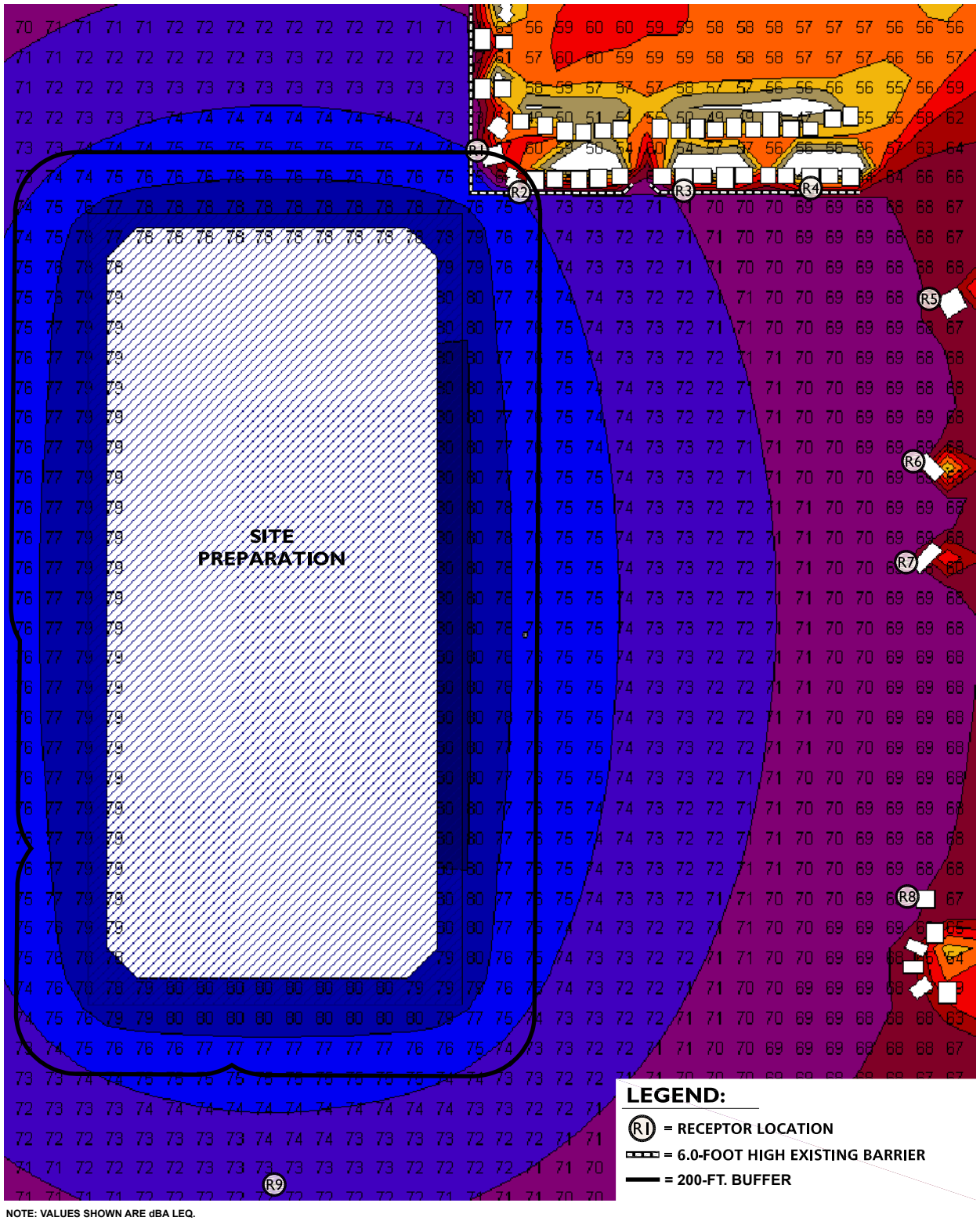
Off-Site Noise Sensitive Receptors



Source: RCTLMA (2011), Eagle Aerial (2008), Urban Crossroads (2011d, Figure 5-A)

Figure 4.10-3

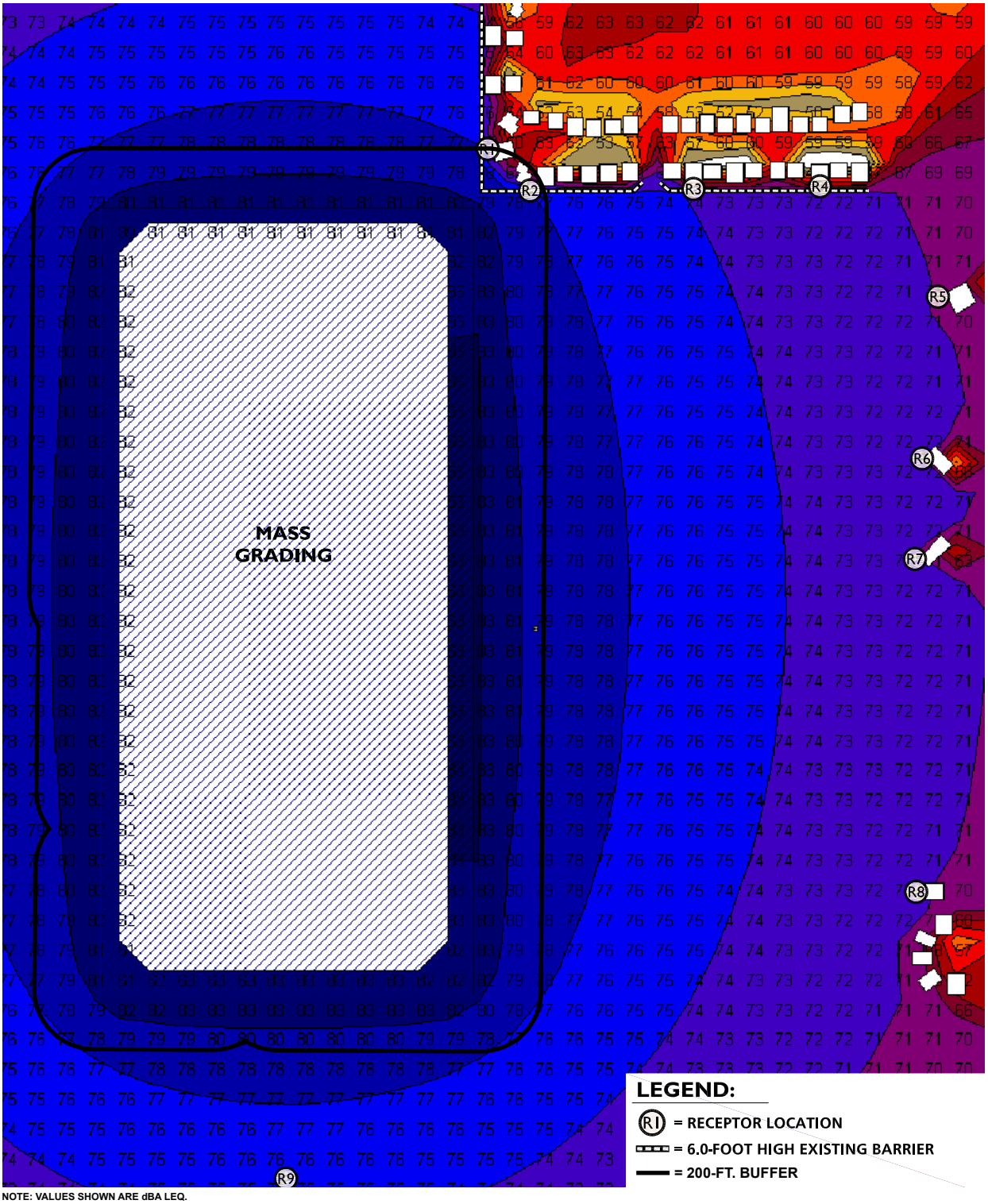
Noise Monitoring Locations



Source: Urban Crossroads (2011e Exhibit 1)

Not to Scale

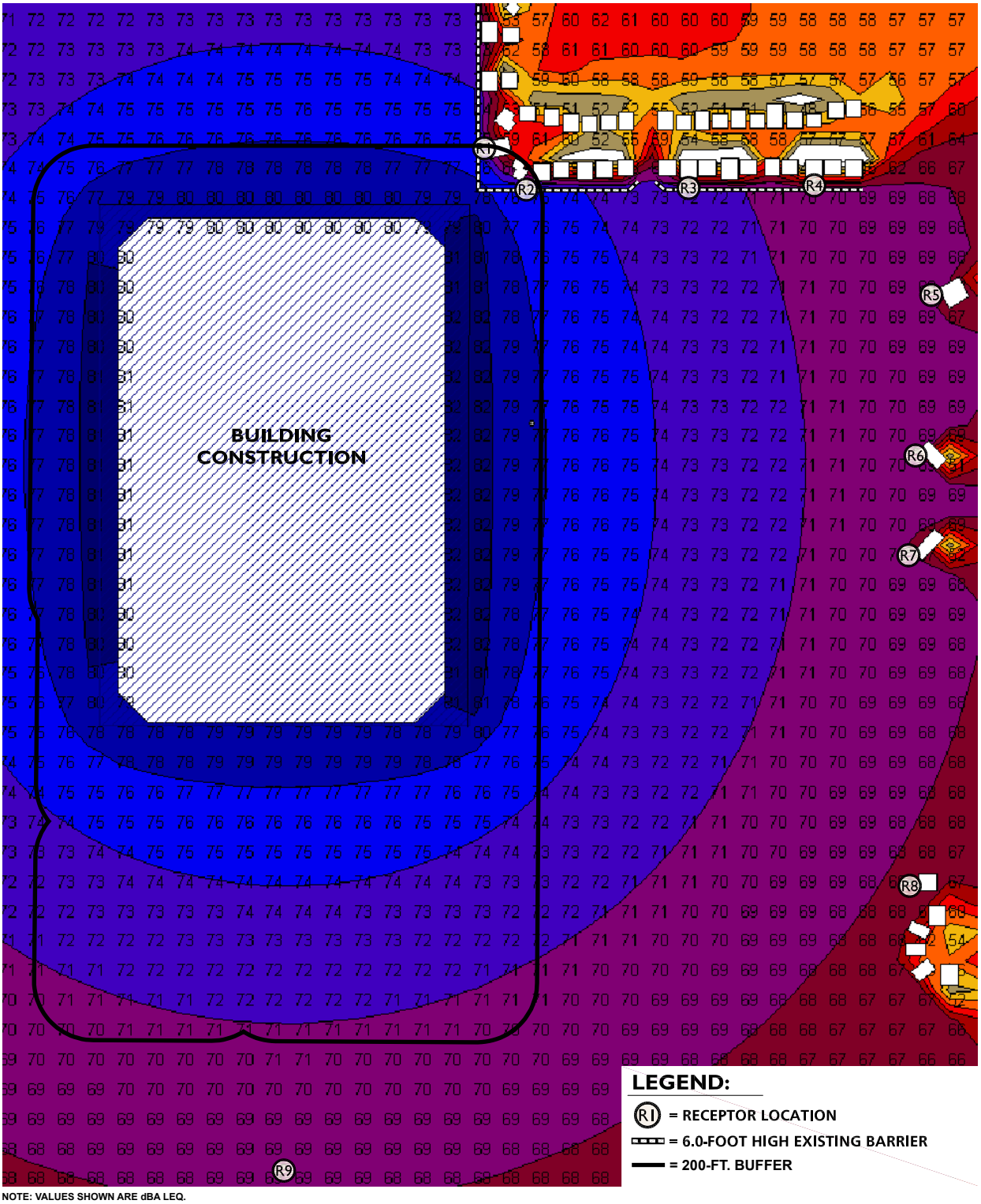
FIGURE 4.10-4
Unmitigated Construction Noise Levels - Phase 1 Site Preparation



Source: Urban Crossroads (2011e Exhibit 2)

Not to Scale

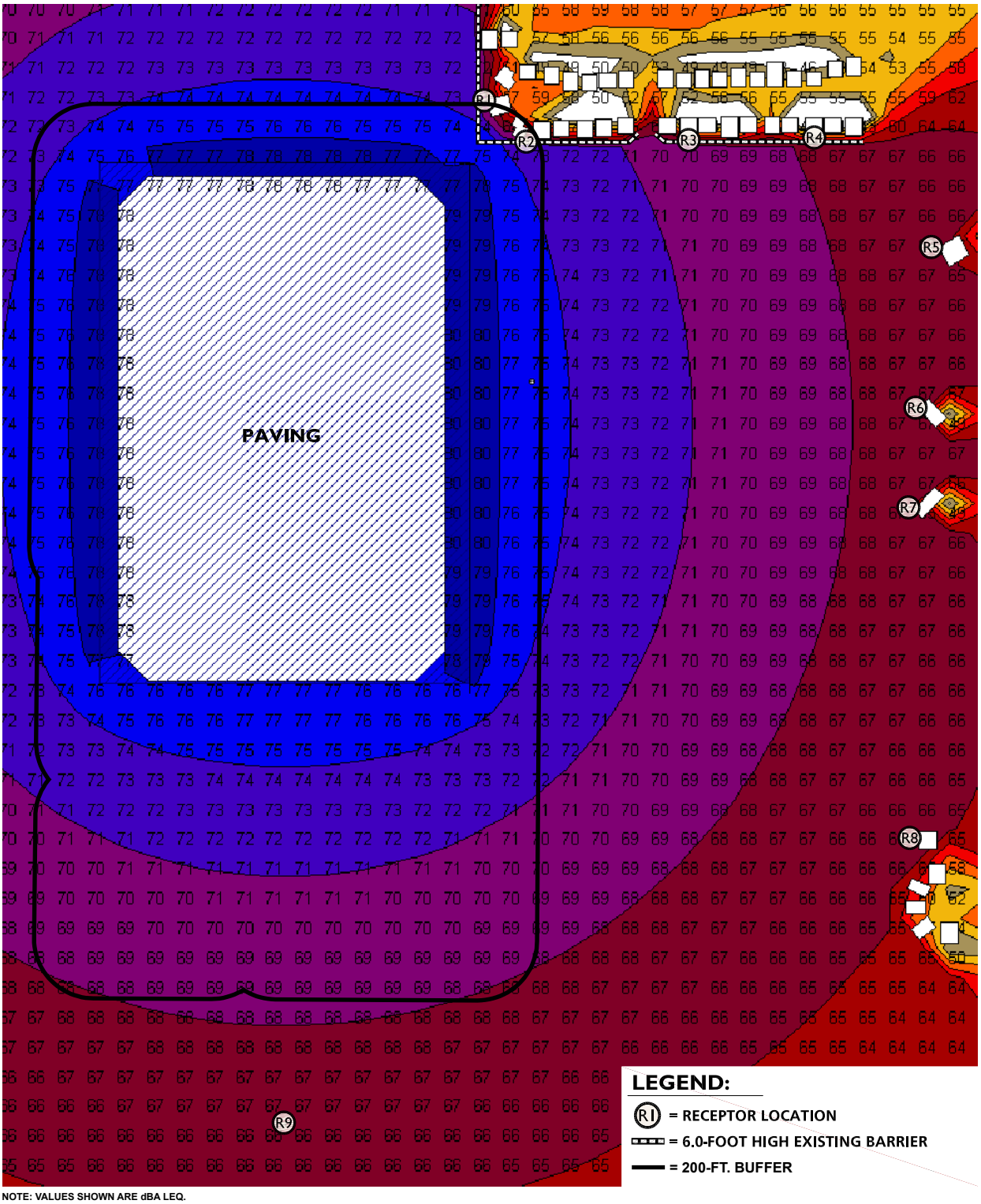
FIGURE 4.10-5
Unmitigated Construction Noise Levels - Phase 1 Mass Grading



Source: Urban Crossroads (2011e Exhibit 3)

Not to Scale

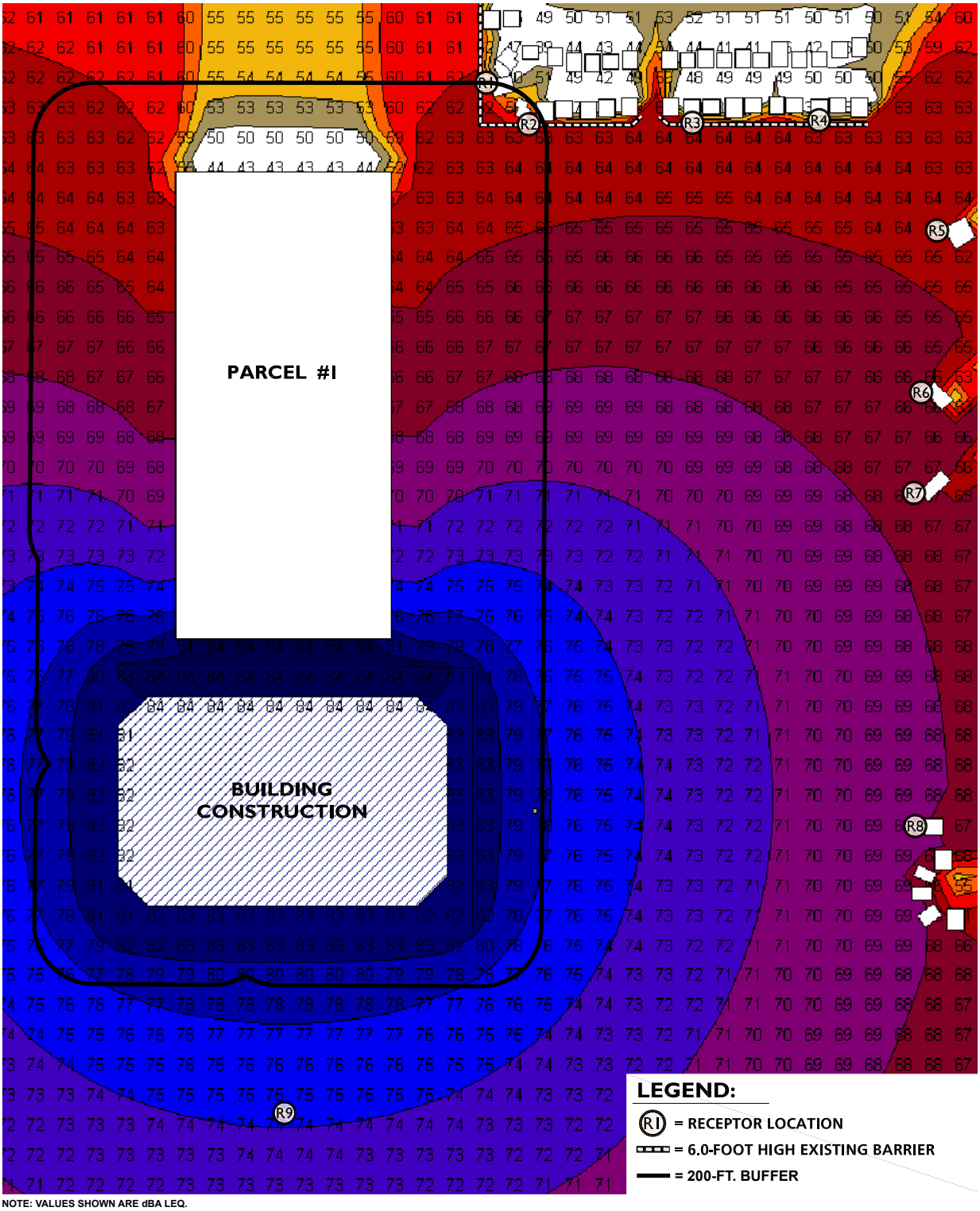
FIGURE 4.10-6
Unmitigated Construction Noise Levels - Phase 1 Building Construction



Source: Urban Crossroads (2011e Exhibit 4)

Not to Scale

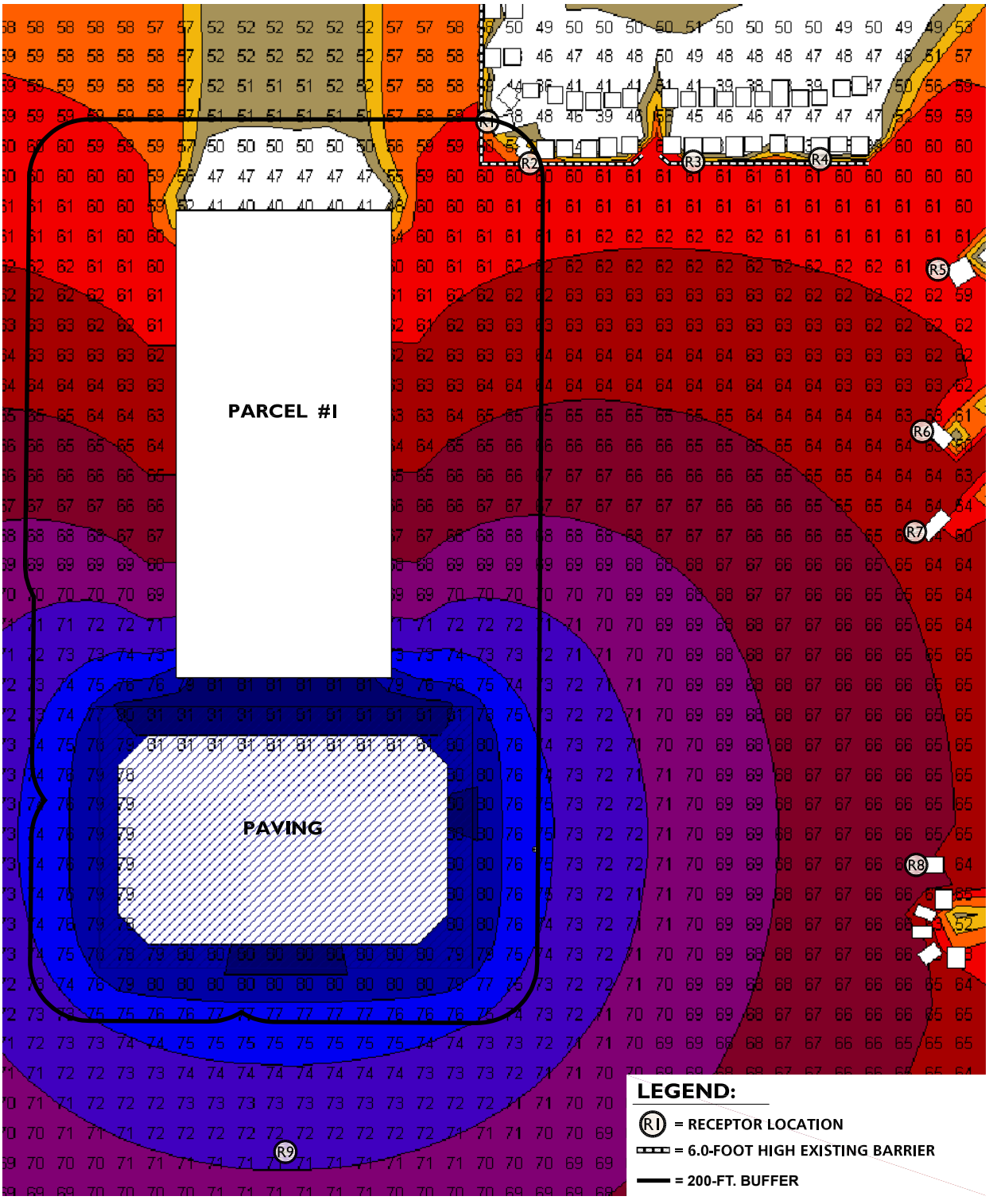
FIGURE 4.10-7
Unmitigated Construction Noise Levels - Phase 1 Paving



Source: Urban Crossroads (2011e Exhibit 9)

Not to Scale

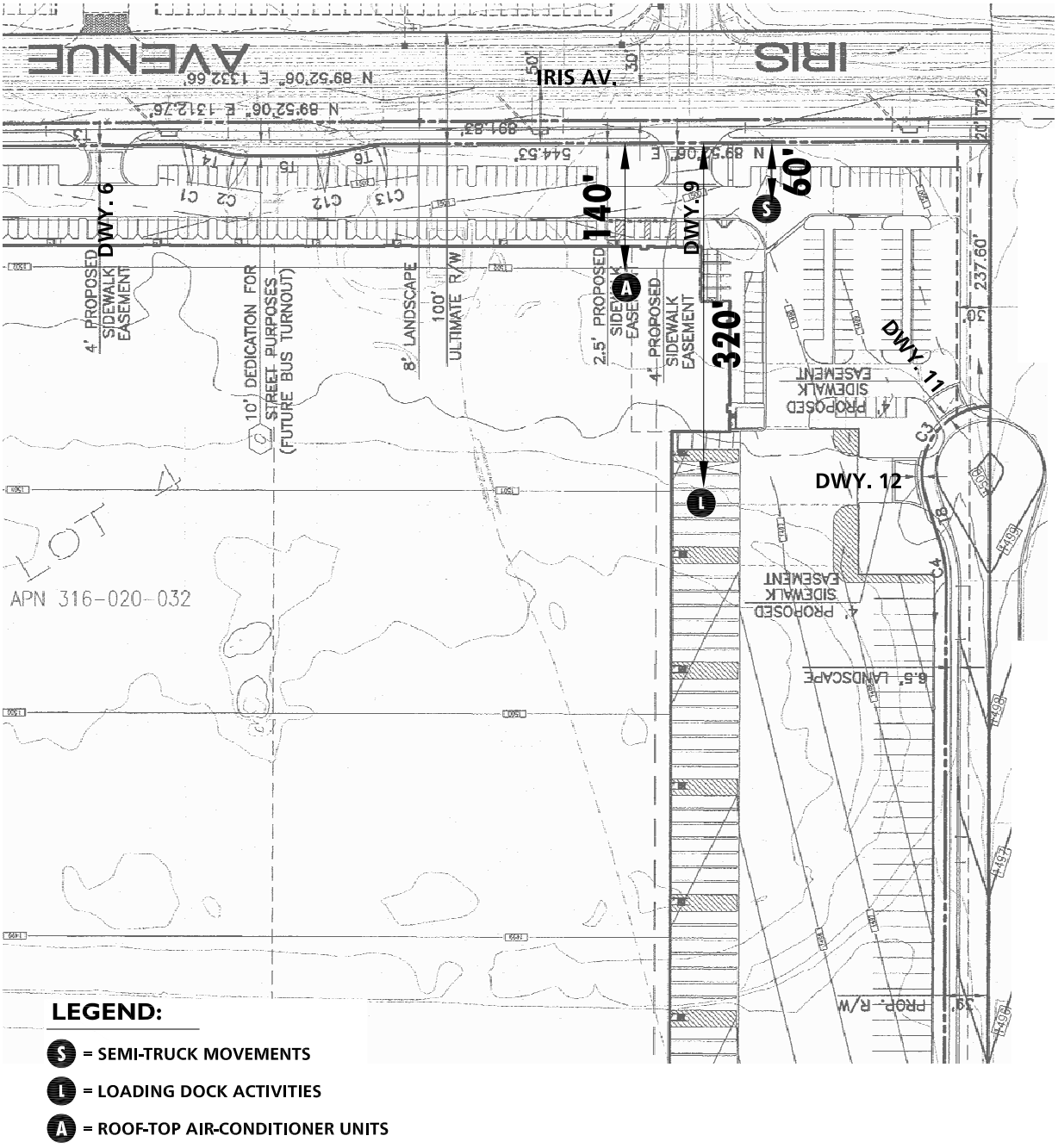
FIGURE 4.10-8
Unmitigated Construction Noise Levels - Phase 2 Building Construction



Source: Urban Crossroads (2011e Exhibit 10)

Not to Scale

FIGURE 4.10-9
Unmitigated Construction Noise Levels - Phase 2 Paving



Source: Urban Crossroads (11-15-11)

Not to Scale

FIGURE 4.10-10
Stationary Noise Impacts

Source: Urban Crossroads (11-15-11)

Not to Scale

FIGURE 4.10-11
March Air Reserve Base Noise Contours

4.11 TRANSPORTATION/TRAFFIC

The following analysis is based on a technical traffic study prepared by Urban Crossroads, Inc., titled "March Business Center, Traffic Impact Analysis, City of Moreno Valley, California" and dated November 3, 2011 (*Technical Appendix J*). The report considers potential traffic impacts associated with construction and operation of the proposed Project and recommends improvements to mitigate impacts considered significant in comparison to stated thresholds. The traffic study was prepared in accordance with the City of Moreno Valley Transportation Engineering Division's *Traffic Impact Analysis Preparation Guide* (August 2007).

4.11.1 STUDY AREA DESCRIPTION

The study area for purposes of determining traffic impacts (see Figure 4.11-1, *Project Study Area / Intersection Locations*) was defined in conformance with the requirements of the City of Moreno Valley's Traffic Impact Analysis (TIA) preparation guidelines. Based on these guidelines, the minimum area to be studied shall include any intersection of "Collector" or higher classification street, with "Collector" or higher classification streets, at which the proposed Project will add 50 or more peak hour trips. The intersections of Indian Street at Iris Avenue and Indian Street at Krameria Avenue were also included as analysis locations due to their proximity to the Project site although the Project is not anticipated to add 50 or more peak hour trips to either of those intersections. The "50 peak hour trip" criteria utilized by the City of Moreno Valley is consistent with the methodology employed by other jurisdictions throughout Riverside County and generally represents a threshold of trips at which a typical intersection would have the potential to be impacted. Although each intersection may have unique operating characteristics, this traffic engineering rule of thumb is a valid and proven way to establish a study area (Urban Crossroads 2011e). Intersections and connecting roadway segments that would not receive more than 50 peak hour trips from the Project are not included in the study area. Based on a comparison of the trip generation information provided in Table 4.11-16, *Project Trip Generation Summary*, with the trip distribution patterns depicted on Figure 4.11-18, *Project Passenger Car Trip Distribution*, and Figure 4.11-19, *Project Truck Trip Distribution*, the proposed Project would not contribute more than 50 peak hour trips to any road segments or intersections located within the City of Riverside; thus, intersections and roadway segments in the City of Riverside do not warrant analysis.

A. Roadway Segments

A total of 63 roadway segments were identified in the study area for analysis based on a review of the key roadway segments in which the Project is anticipated to contribute 50 or more peak hour trips. Table 4.11-1 provides a summary of the study area roadway segments, each with an ID number and jurisdiction noted. Italicized roadway segments in Table 4.11-1 indicate future roadway segments that would be developed as part of the Project and do not currently exist. Refer to Figure 4.11-1 for roadway locations.

B. Intersections

A total of 33 Project study area intersections (Table 4.11-2, *Intersection Analysis Locations*) were selected based on the City's TIA analysis methodology and input from the City of Moreno Valley Traffic Engineering Division. An ID number has been assigned to each intersection and jurisdictional locations have been identified. Italicized intersections in Table 4.11-2 would be developed as part of the Project and do not currently exist. Intersections are identified on Figure 4.11-1.

C. Freeway Mainline Segments

Consistent with California Department of Transportation (Caltrans) traffic study guidelines, there are eight (8) freeway mainline analysis locations in the Project study area, including segments on either side of the two interchanges where the proposed Project is anticipated to contribute 100 two-way peak hour trips. The study area freeway mainline segments are identified in Table 4.11-3, *Freeway Mainline Segment Analysis Locations*. All freeway mainline segments are under the jurisdiction of Caltrans.

D. Freeway Merge/Diverge Ramp Junctions

There are 10 merge/diverge ramp junction locations in the Project's study area for the I-215 freeway for both northbound and southbound directions of flow as shown in Table 4.11-4, *Freeway Merge/Diverge Ramp Junction Analysis Locations*. All freeway mainline segments are under the jurisdiction of Caltrans.

4.11.2 EXISTING CONDITIONS

Regional access is provided to the Project site via Interstate 215 (I-215), which is located approximately 1.4 miles west of the site, and State Route 60 (SR-60), located approximately 3.5 miles north of the site. The 75.05-acre Project site is located in the City of Moreno Valley, west of Indian Street, immediately south of Iris Avenue, and immediately east of Heacock Street. (Figure 4.11-8, *City of Moreno Valley General Plan Circulation Element*, and Figure 4.11-9, *City of Moreno Valley General Plan Roadway Cross-Sections*, show the City's roadway designations and cross-sections for the major roads surrounding the Project site in the City of Moreno Valley.)

A. Existing Traffic Counts

Manual AM and PM peak hour turning movement counts at study area intersections were collected by Urban Crossroads, Inc. in May 2011. The counts include the vehicle classifications as shown below, per City of Moreno Valley TIA requirements:

- Passenger Cars
- 2-Axle Trucks
- 3-Axle Trucks
- 4 or More Axle Trucks

A review of the traffic count data revealed that trucks represent between 0% and 12% of the overall vehicle mix at the various study area intersections. To represent the impact that large trucks, buses, and recreational vehicles have on traffic flow; all trucks were converted into Passenger Car Equivalents (PCEs) for the purpose of conducting the traffic analysis. By their size alone, these vehicles occupy the same space as two or more passenger cars. In addition, the time it takes for large vehicles to accelerate and slow down is also much longer than for passenger cars, and varies depending on the type of vehicle and number of axles. For the purpose of the Project's traffic impact analysis in *Technical Appendix J* and this EIR Subsection, a PCE factor of 1.5 was applied to 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4+-axle trucks to estimate each turning movement.

Existing (2011) average daily traffic (ADT) volumes on arterial highways throughout the study area are shown on Figure 4.11-2, *Existing (2011) Average Daily Traffic (ADT)*. Existing (2011) ADT

volumes are based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

PM Peak Hour (Approach Volume + Exit Volume) x 12 = Leg Volume

B. *Existing Roadway Conditions*

Based on the methodology presented below in Subsection 4.11.3B, of 46 existing roadway segments in the study area, 45 operate at an acceptable LOS (with 35 segments operating at LOS "A"). One (1) segment operates at an unacceptable LOS:

ID	Roadway Segment	Jurisdiction
40	Heacock Street from Gentian Avenue to Iris Avenue – LOS "F"	MV, MJPA

Table 4.11-5 summarizes the Existing (2011) conditions roadway segment capacity based on the LOS Thresholds identified in Table 4.11-11. Existing (2011) AM and PM peak hour intersection volumes are shown on Figure 4.11-3 (3a and 3b) and Figure 4.11-4 (4a and 4b). All of the traffic volumes illustrated on the exhibits and used in the traffic impact analysis are shown in terms of PCEs.

C. *Existing Intersection Conditions*

Figure 4.11-2 (5a and 5b), *Existing (2011) Number of Through Lanes and Intersection Controls*, shows the characteristics of each of the existing 17 Project study area intersections. (The other 16 intersections in the study area (see Table 4.11-2) are future planned intersections that do not currently exist.) Based on the methodology presented in Subsection 4.11.3B, *Intersection Capacity Analysis*, all but one of the existing study area intersections operate at acceptable LOS during peak hours. The following intersection experiences unacceptable LOS "F" during the PM peak hour only:

ID	Intersection Location	Jurisdiction
9	Heacock Street / Iris Avenue – LOS "F" during PM peak hour	MV, MJPA

Figure 4.11-6, *Existing (2011) Peak Hour Intersection Level of Service (LOS)*, summarizes the AM and PM peak hour study area intersection LOS under Existing (2011) conditions, consistent with the summary provided in Table 4.11-6, *Intersection Analysis for Existing (2011) Conditions.*

Traffic signal warrants for existing traffic conditions are based on existing peak hour intersection volumes. Based on the methodology presented in Subsection 4.11.3B, *Traffic Signal Warrant Analysis*, traffic signals appear to be warranted at the following three intersections under existing conditions:

ID	Intersection Location	Jurisdiction
8	Heacock Street / Gentian Avenue	MV, MJPA
9	Heacock Street / Iris Avenue	MV, MJPA
33	Indian Street / Harley Knox Boulevard	Perris

Source: Urban Crossroads, Inc., 2001f, Section 3.9.

D. Existing Freeway Ramp Conditions

A progression analysis was performed for the I-215 interchanges with Cactus Avenue and Harley Knox Boulevard to assess vehicle queues for the on- and off-ramps and along the arterials adjacent to the I-215 Freeway that may potentially impact peak hour operations at the ramp-to-arterial intersections. Table 4.11-7, *Existing Conditions (2011) Conditions Stacking Length Summary at I-215/ Cactus Avenue and I-215/Harley Knox Boulevard*, summarizes the AM and PM hour stacking lengths for the study area interchanges under existing conditions. The following movements are calculated to experience potential queuing issues during peak 95th percentile traffic flows:

Freeway Ramp Intersection Location	Movement
I-215 Southbound Ramps / Harley Knox Boulevard	Westbound Left Turn Lane
I-215 Northbound Ramps / Harley Knox Boulevard	Eastbound Left Turn Lane

Source: Urban Crossroads, Inc., 2001f, Section 3.10.

As shown in Table 4.11-8, *Existing (2011) I-215 Freeway Ramp Junction Merge/Diverge Analysis*, the I-215 Freeway ramp merge and diverge areas operate at acceptable LOS "E" or better during the peak hours under Existing (2011) traffic conditions.

E. Existing Freeway Segment Conditions

Existing (2011) mainline directional volumes for I-215 for the AM and PM peak hours are shown on Figure 4.11-7, *Existing (2011) I-215 Freeway Mainline Volumes*, and the two-way and directional splits for each I-215 freeway mainline segment, for each segment by peak, are shown in Table 4.11-9, *Existing (2011) Conditions for I-215 Directional Peak Hour Volumes*. As shown in Table 4.11-10, *Existing (2011) Conditions Basic Freeway Segment Analysis*, I-215 Freeway segments in the study operate at an acceptable LOS (LOS "E" or better) during the peak hours for Existing (2011) traffic conditions.

F. Existing Mass Transit

The Project study area is currently served by the Riverside Transit Agency (RTA) with bus services along Cactus Avenue, Indian Street, John F. Kennedy Drive, Iris Avenue, and Krameria Avenue through various routes (Routes 11, 19, and 20). The nearest stop for RTA Route 11 is approximately 1.0 mile north of the Project site, at the intersection of Meyer Drive and Riverside Drive. RTA Route 20 travels adjacent to the Project site's eastern boundary, along Indian Street between Krameria and Iris Avenues. The nearest stop for RTA Route 19 is approximately 0.5 miles east of the site at the intersection of Krameria Avenue and Perris Boulevard. (Urban Crossroads 2011e 37)

G. Existing Bicycle and Pedestrian Facilities

Field observations conducted by Urban Crossroads, Inc. on March 18, 2011 (Urban Crossroads 2001f 45) indicate nominal pedestrian and bicycle activity within the study area. Figure 4.11-10, *City of Moreno Valley Master Plan of Trails*, shows that there are no trails or planned trails within the study area. Figure 4.11-11, *City of Moreno Valley Bikeway Plan*, shows planned bikeway routes in the area. Under existing conditions, there are no formal trails, bikeways, or sidewalks adjacent to the Project site's frontage. There is a sidewalk along the north side of Iris Avenue, northeast of the Project site.

H. Existing Truck Routes

Figure 4.11-12, *City of Moreno Valley Truck Routes*, shows the designated truck route map for the City. Cactus Avenue, Frederick Street, Heacock Street, San Michele Road, Nandina Avenue, and Indian Street south of San Michele Road, are all designated truck routes. (The map also has been used to predict the route of truck traffic under future conditions.)

I. Existing Regional Transportation Programs and Plans

Following is a discussion of existing planning efforts, programs, and policies regarding transportation that have applicability to the proposed Project.

❑ County of Riverside Congestion Management Program (CMP)

The Riverside County CMP was prepared by the Riverside County Transportation Commission (RCTC) in accordance with Proposition 111, passed in June 1990. The CMP was established in the State of California to more directly link land use, transportation, and air quality and to prompt reasonable growth management programs that would more effectively utilize new and existing transportation funds, alleviate traffic congestion and related impacts, and improve air quality. Deficiencies along the CMP system must be identified when they occur so that improvement measures can be identified. Understanding the reason for these deficiencies and identifying ways to reduce the impact of future growth and development along a critical CMP corridor is intended to conserve scarce funding resources and help target those resources appropriately. In the vicinity of the Project site, I-215 is a CMP Roadway (RCTC 2010 2-5).

❑ City of Moreno Valley General Plan Circulation Element

The purpose of the City of Moreno Valley's Circulation Element is to ensure a complete, balanced, and well-maintained circulation system that relies on vehicular travel and transit, and incorporates alternative modes including bikeways and pedestrian facilities (Moreno Valley 2006a). A primary objective of the Circulation Element is to ensure that the effects of future new development on the City's transportation system are understood and that the improvements needed to support new growth are planned and properly funded. Refer to Figure 4.11-2 and Figure 4.11-8 for illustrations of the City's Circulation Element exhibits.

❑ Riverside County Integrated Project (RCIP)

The RCIP is Riverside County's comprehensive, three-part, integrated program to determine future habitat conservation, transportation, and housing and economic needs in Riverside County. The RCIP addresses traffic congestion by addressing future traffic and multi-model circulation issues through the Community & Environmental Transportation Acceptability Process (CETAP). This element of RCIP identifies the locations for new transportation facilities that will help benefit commuters and serve Riverside County's growing economy. Selection of new transportation corridors are intended to be integrated with decisions on land use and environmentally sensitive areas (Riverside County 2003a and 2003c).

❑ The Regional Transportation Plan (RTP)

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code §6500, also referred to as the Joint Powers Authority law. SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning

Agency (RTPA), and a Metropolitan Planning Organization (MPO). The Project site is within SCAG's regional authority. In 2008, SCAG prepared a Regional Transportation Plan (RTP) with goals to: 1) maximize mobility and accessibility for all people and goods in the region; 2) ensure travel safety and reliability for all people and goods in the region; 3) preserve and ensure a sustainable transportation system; 4) maximize productivity of the transportation system; 5) protect the environment, improve air quality, and promote energy efficiency; 6) encourage land use and growth patterns that complement the transportation investments and improve the cost-effectiveness of expenditures; and 7) maximize the security of the transportation system (SCAG 2008b). Performance measures and funding strategies also are included to ensure that the adopted goals are achieved through implementation. This EIR evaluates Project consistency with the 2008 RTP, which was the applicable SCAG transportation planning document at the time the NOP for this EIR was released for public review (June 2011). Since that time, SCAG released a 2012 Draft RTP; however, because that document was not available nor approved in June 2011, the 2008 RTP is applicable for evaluation purposes in this EIR.

- **AB 1358 California Complete Streets Act of 2008**

Assembly Bill 1358 (AB 1358), better known as the California Complete Streets Act of 2008 (Complete Streets Act), requires that, upon any substantive revision of a General Plan (as applicable to the proposed Project, the City of Moreno Valley's General Plan's Circulation Element), the circulation plan be modified to plan for a balanced, multimodal circulation system. The new circulation plan must be designed to meet the needs of all users of area roadways, defined to include motorists, bicyclists, pedestrians, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation.

4.11.3 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to transportation/traffic if the Project or any Project-related component would:

1. *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;*

2. *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;*

3. *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;*

4. *Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment);*

5. *Result in inadequate emergency access; or*

6. *Conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.*

A. Determining Significance of Impacts

❑ Roadway Segments and Intersections

Based on the City of Moreno Valley traffic study guidelines, a significant direct traffic impact under CEQA occurs when the addition of project traffic causes an intersection that operates at an acceptable level of service (i.e., LOS "D" or better) to fall to an unacceptable level of service (i.e., LOS "E" or "F"). For purposes of determining the significance of impacts in this Subsection:

- If an intersection is projected to operate at an acceptable level of service (i.e., LOS "D" or better) without the Project and the addition of Project traffic as measured by 50 or more peak hour trips is expected to cause the intersection to operate at an unacceptable level of service (i.e., LOS "E" or "F"), the impact is considered a significant direct impact.
- If an intersection is projected to operate at an unacceptable level of service (i.e., LOS "E" or "F") without the Project, and the Project contributes 50 or more peak hour trips, the impact is considered a significant direct impact.
- A significant cumulative impact is identified when a roadway segment or intersection is projected to operate below the LOS standards with the addition of future traffic and a Project-related traffic increase of 50 or more peak hour trips. Cumulative traffic impacts are created as a result of a combination of the proposed Project together with other future developments contributing to the overall traffic impacts requiring additional improvements to maintain acceptable LOS operations with or without the Project. The Project's contribution to a cumulatively significant impact can be reduced to less-than-significant if the Project is required to implement or fund its fair share of improvements designed to alleviate the potential cumulative impact. If full funding of future cumulative improvements is not reasonably assured, a temporary unmitigated cumulative impact may occur until the needed improvement is fully funded and constructed.

❑ Freeway Segments and Ramp Junctions

RCTC has determined that freeway segments and ramp junctions that operate below LOS "E" should be identified and improved to an acceptable LOS, however, specific criteria to identify project-related impacts is not specified by RCTC or in the Caltrans Traffic Impact Study guidelines.

For the purposes of the analysis in this Subsection and in accordance with the adopted Riverside County CMP, if a freeway segment is projected to operate at an acceptable level of service (i.e., LOS "E" or better) without the Project and the Project is expected to cause the facility to operate at an unacceptable level of service (i.e., LOS "F"), the Project's impact is considered significant. If the facility would operate at a deficient LOS without the Project, the addition of Project traffic would be considered a cumulative impact. Neither Caltrans nor the City of Moreno Valley has identified significance thresholds for queues at the freeway-to-arterial ramp junctions (Urban Crossroads 2011e 35-36). Regardless, data and analysis about queues at ramp junctions are given in *Technical Appendix J* and this Subsection (Impact Analysis, Threshold 2) for information disclosure. Impacts are considered significant on a direct and cumulative basis if the addition of Project traffic would cause a queuing issue that would not exist without the Project. If no new queuing issues are identified, impacts are considered to be less than significant and less than cumulatively considerable.

B. Methodology

❑ Level of Service

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS "A," representing completely free-flow conditions, to LOS "F," representing breakdown in flow resulting in stop-and-go conditions. LOS "E" represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

The definition of an intersection deficiency in the City of Moreno Valley is based on the City of Moreno Valley General Plan Circulation Element. The City of Moreno Valley General Plan states that target LOS "C" or LOS "D" be maintained along City roads (including intersections) wherever possible. Figure 4.11-13, *City of Moreno Valley Level of Service (LOS) Standards*, shows the LOS standards within the City.

Caltrans, the County of Riverside, the City of Riverside, and the City of Perris have established explicit LOS performance criteria related to determining the significance of impacts on the roadway system within their jurisdictions. As the March Joint Powers Authority does not have explicit LOS performance criteria, the performance criterion for the County of Riverside has been applied. Generally, LOS "D" is considered to be the limit of acceptable traffic operations during the peak hour in these jurisdictions. LOS "D" is therefore used as the significance threshold in this Subsection for these jurisdictions unless otherwise noted. RCTC has adopted LOS "E" as the minimum standard for intersections and segments along the CMP System of Highways and Roadways. Therefore, for the purposes of the traffic impact analysis, LOS "E" was considered to be the limit of acceptable traffic operations for the I-215 Freeway mainline segments and ramp junctions.

❑ Roadway Segment Capacity Analysis

Roadway segment operations are evaluated using the City of Moreno Valley Daily Roadway Capacity Values provided in the *City of Moreno Valley Transportation Engineering Division Traffic Impact Analysis (TIA) Preparation Guide* (dated August 2007). Per the City of Moreno Valley TIA guidelines, roadway segments within the study area should maintain the LOS capacities illustrated on Figure 4.11-13, *City of Moreno Valley Level of Service (LOS) Standards*. The daily roadway segment capacities for each type of roadway are summarized in Table 4.11-11, *Roadway Segment Capacity LOS Thresholds*. Roadway segment capacities are approximate figures only, and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet future traffic demands. These roadway capacities are "rule of thumb" estimates for planning purposes (Urban Crossroads 2011e 27). As such, where the ADT-based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis and progression analysis is undertaken.

❑ Intersection Capacity Analysis

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions. The following peak hours were selected for analysis because these hours are typically experience the most traffic during a 24-hour period:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)

- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

For signalized intersections, the City of Moreno Valley requires operations analysis based on the methodology described in Chapter 16 of the Highway Capacity Manual (HCM). Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections, LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 4.11-12, *Signalized Intersection LOS Thresholds*.

Per the Caltrans Guide for the Preparation of Traffic Impact Studies, the traffic modeling and signal timing optimization software package Synchro (Version 7 Build 759) was used by *Technical Appendix J* to analyze signalized intersections under Caltrans' jurisdiction, which include interchange to arterial ramps (i.e. I-215 Freeway ramps at Cactus Avenue and Harley Knox Boulevard). All other study area intersections within the City of Moreno Valley, City of Perris, March JPA, and the County of Riverside have been analyzed using the software package Traffix (Version 8.0 R1, 2008). The peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15 minute volumes. Common practice for LOS analysis is to use a peak 15-mintue rate of flow. However, flow rates are typically expressed in vehicles per hour. (The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g. PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate])). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs have been used for Existing (2011), Opening Year (2016) without Project, and Opening Year (2016) with Project traffic conditions. A PHF of 0.95 or higher has been used for future cumulative traffic conditions such as Horizon Year (2016) without and with Project conditions. Lastly, a PHF of 1.00 has been used for all intersections for long-range General Plan buildout without and with Project traffic conditions.

For unsignalized intersections, the City of Moreno Valley requires that operations be evaluated using the methodology described in Chapter 17 of the HCM. The LOS rating is based on the weighted average control delay expressed in seconds per vehicle, as shown in Table 4.11-13, *Unsignalized Intersection LOS Thresholds*.

At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole. All unsignalized study area intersections are analyzed using the Traffix software (Version 8.0 R1, 2008).

❑ Traffic Signal Warrant Analysis

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. The signal warrant criteria presented in the latest edition of the Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices* (MUTCD), as amended by the *MUTCD 2003 California Supplement*, is used for all study area intersections. For more information on signal warrant methodology, refer to Section 2.7 of *Technical Appendix J*.

Traffic signal warrant analyses were performed for all of the study area intersections that are not currently signalized. A signal warrant defines the minimum condition under which the installation of

a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. Signal warrants do not necessarily correlate with level of service. An intersection may satisfy a signal warrant condition and operate at or above LOS "C" or operate below LOS "C" and not meet a signal warrant.

❑ Freeway Ramp Progression Analysis

The study area includes segments of the I-215 Freeway from north of Cactus Avenue to south of Harley Knox Boulevard and includes the freeway-to-arterial interchanges of the I-215 Freeway with the Cactus Avenue and Harley Knox Boulevard ramps. Consistent with Caltrans requirements, the progression of vehicles has been assessed to determine potential queuing lengths at the freeway ramp intersections on Cactus Avenue and Harley Knox Boulevard and the I-215 Freeway.

The traffic progression analysis tool and HCM intersection analysis program, Synchro, was used to assess the potential needs of the intersections with traffic added from the proposed Project. Storage (turn-pocket) length recommendations at the ramps are based upon the 95th percentile queue resulting from the Synchro progression analysis. The 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes. The queue length reported is for the lane with the highest queue in the lane group. A vehicle is considered queued whenever it is traveling at less than 10 feet/second. For more information on queuing analysis methodology, refer to Section 2.4 of *Technical Appendix J*.

❑ Freeway Mainline Segment Analysis

I-215 in the study area, from north of Cactus Avenue to south of Harley Knox Boulevard, has been broken into segments defined by the freeway-to-arterial interchange locations. The freeway segments are evaluated in *Technical Appendix J* based upon peak hour directional volumes. The freeway segment analysis is based on the methodology described in Chapter 23 of the HCM and performed using HCS+ software. The performance measure preferred by Caltrans to calculate LOS is density. Density is expressed in terms of passenger cars per mile per lane. Table 4.11-14, *Freeway Mainline LOS Thresholds*, illustrates the freeway segment LOS thresholds for each density range utilized for the analysis.

The number of lanes for existing conditions was obtained from field observations conducted by Urban Crossroads, Inc. in May 2011. The RCTC has plans in place for the widening of I-215 through the study area; however, a schedule for the widening of I-215 between Nuevo Road in the City of Perris and Box Springs Road in the City of Riverside has not been set, due to the state's ongoing budget challenges (RCTC n.d.). The North I-215 Project will add a carpool lane (high-occupancy vehicle lane) in each direction to a 10.75-mile section of I-215, the northernmost section of the RCTC's widening efforts along this freeway. Once project costs and funding are determined, RCTC estimates a schedule of 8½ years until completion, to account for project development, final design, and construction (Urban Crossroads 2001f 30). As such, the future expansion of the I-215 Freeway has been assumed for "with improvements" conditions only and not assumed as the base condition in the basic freeway segment analysis.

❑ Freeway Merge/Diverge Ramp Junction Analysis

The freeway system in the study area has been broken into segments defined by freeway-to-arterial interchange locations resulting in eight existing on- and off-ramp locations. Although the HCM

indicates the influence area for a merge/diverge junction is 1,500 feet, the analysis presented in *Technical Appendix J* and this subsection has been performed at all ramp locations with respect to the nearest on- or off-ramp at each interchange in an effort to be consistent with Caltrans guidance/comments on other projects along the I-215 corridor (Urban Crossroads 2011e 31).

The merge/diverge analysis is based on the HCM Ramps and Ramp Junctions analysis method and performed using HCS+ software. The results (reported in passenger car/mile/lane) are calculated based on the existing number of travel lanes, number of lanes at the on- and off-ramps both at the analysis junction and at upstream and downstream locations (if applicable), and acceleration/deceleration lengths at each merge/diverge point. Table 4.11-15, *Merge and Diverge LOS Thresholds*, presents the merge/diverge area level of service thresholds for each density range utilized for this analysis.

❑ Background Traffic

Future year traffic forecasts have been based upon five (5) years of background (ambient) growth at 2% per year for 2016 traffic conditions. The ambient growth factor is intended to approximate regional traffic growth. The total ambient growth is 10.4% for 2016 traffic conditions (compounded growth of two% per year over five years). This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by known cumulative development projects analyzed by *Technical Appendix J*. According to information published by the Riverside County Center for Demographic Research (RCCDR) and used as the basis for completing the Western Riverside Council of Governments (WRCOG) Transportation Uniform Mitigation Fee (TUMF) Nexus Study – 2009 Program Update, the population of Western Riverside County is projected to increase by 62% in the period between 2007 and 2035, a compounded rate of approximately 1.73% annually. During the same period, employment in Western Riverside County is expected to increase by 111% or 2.71% annually. Therefore, the use of an annual growth rate of 2.0% is consistent with the anticipated regional growth in traffic volumes.

❑ Cumulative Impact Analysis

CEQA Guidelines Section 15130 requires that an EIR include the discussion of a Project's cumulative impacts. For the purpose of analyzing the proposed Project's cumulative effects on traffic, and in accordance with the City of Moreno Valley's Traffic Impact analysis Preparation Guide (2007), a comprehensive list of 51 other known approved or reasonably foreseeable development projects in the study area was compiled. See Figure 4.11-14, *Cumulative Development Projects Location Map*, for locations of the development projects considered. Information about each development project can be found in Section 4.6 of *Technical Appendix J*. These 52 projects are calculated to generate 232,739 net passenger car equivalent (PCE trip-ends per day during a typical weekday with approximately 20,195 net PCE vehicle trips during the AM peak hour and 23,306 net PCE vehicle trips during the PM peak hour).

Based on the identified trip distribution patterns for the cumulative development projects on arterial highways throughout the study area, cumulative development ADT volumes, AM peak hour, and PM peak hour intersection turning movement volumes are shown on Figure 4.11-15, Figure 4.11-16 (16a and 16b), and Figure 4.11-17 (17a and 17b), respectively.

4.11.4 IMPACT ANALYSIS

Threshold 1:	***Would the Project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?***

The Project proposes improvements to the site-adjacent roadways Iris Avenue and Heacock Street, proposes to construct future Cosmos Street along the property's eastern boundary, and proposes to construct a segment of Krameria Avenue through the Project site to connect Cosmos Street with Heacock Street. These proposed roadway improvements are described in Section 3.0, Project Description, and will be enforced as part of the Project's Conditions of Approval, which will be issued by the City of Moreno Valley prior to consideration of the proposed Project by the City Council. The construction of these roadway improvements is assumed throughout the analyses. The analysis of Threshold 1 focuses on potential impacts to local roadways, based on acceptable LOS standards established by the City of Moreno Valley General Plan and the general plans of surrounding jurisdictions. Refer to Threshold 2 for an analysis of potential impacts to I-215 based on acceptable LOS standards established by the Riverside County Congestion Management Plan.

A. Project Trip Generation and Distribution

Trip generation represents the amount of traffic that is attracted to and produced by a development project. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses proposed for a given development. In an effort to accurately estimate the number of vehicle trips to be generated by the proposed Project, three trip generation sources were evaluated: 1) the City of Fontana *Truck Trip Generation Study*, August 2003) the South Coast Air Quality Management District's 2011 study of trip generation rates for high cube warehouse distribution centers, and 3) the Institute of Transportation Engineers (ITE) *Trip Generation*, 8th Edition, 2008. Detailed information about each of these sources and the methodology used to determine the Project's trip generation is provided in Section 4.1 of *Technical Appendix J.*

Assumed to be built and fully operational by as early as Year 2016, the Project is proposed to consist of 1,380,246 square feet of high-cube/distribution warehouse use; 87,429 square feet of warehousing use; and 16,732 square feet of general light industrial use. Using that development potential, the proposed Project would produce an estimated 4,400 daily vehicle trips, including 298 during the AM Peak Hour and 328 during the PM Peak Hour. A Summary of the Project's Trip Generation is provided in Table 4.11-16, *Project Trip Generation Summary*. The traffic reducing potential of using public transit, walking, or bicycling by employees of the Project site has not been considered, which have the potential to reduce the forecasted traffic volumes. Because these factors were not considered in the analysis (and would reduce the volume of Project-related vehicular traffic if considered), the analysis of impacts to transportation/traffic in this subsection represents a conservative analysis of potential impacts.

Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that would be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the routes where Project traffic would

distribute. The Project trip distribution was developed based on anticipated travel patterns to and from the Project site for both passenger cars and truck traffic. The total volume on each roadway was divided by the Project's total traffic generation to indicate the percentage of Project traffic that would use each component of the regional roadway system in each relevant direction. The Project passenger car trip distribution pattern is graphically depicted on Figure 4.11-18, *Project Passenger Car Trip Distribution*, and the Project truck trip distribution pattern is graphically depicted on Figure 4.11-19, *Project Truck Trip Distribution*.

The assignment of traffic from the Project area to the adjoining roadway system is based on the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of Project occupancy (2016). Based on the identified Project traffic generation and trip distribution patterns, Project average daily traffic (ADT) volumes for the weekday are shown on Figure 4.11-20, *Project (2016) Average Daily Traffic (ADT)*, and Project AM and PM peak hour intersection turning movement volumes are shown on Figure 4.11-21 (21a and 21b) and Figure 4.11-22 (22a and 22b).

B. Analysis Scenarios

Although Phase 1 of the proposed Project is anticipated to be occupied in Year 2014/2015, and Phase 2 of the proposed Project would be occupied as early as Year 2016, the analysis in this subection assumes that both phases of the proposed Project would be occupied in Year 2016. Pursuant to the City of Moreno Valley's Traffic Impact Analysis Preparation Guide, all traffic impact analyses must be "…projected to the year that the project is estimated to be complete (minimum of five years)." (Moreno Valley 2007 5). The Notice of Preparation for this EIR was distributed for public review in June 2011; thus, the opening year for both phases of the proposed Project is assumed to be five years later (Year 2016). Therefore, for the purpose of the traffic impact analysis presented below, potential impacts to traffic and circulation are assessed for each of the following conditions:

- Existing (2011) plus Project Conditions (1 scenario) (E+P)
- Opening Year (2016) without Project and Opening Year (2016) with Project (2 scenarios) – ambient growth only (E+A and E+A+P)
- Horizon Year (2016) without Project and Horizon Year (2016) with Project (2 scenarios) – ambient growth and cumulative development projects (E+A+C and E+A+P+C)
- General Plan Buildout Conditions without Project and General Plan Buildout Year with Project (2 scenarios) – analysis performed for select intersections within close proximity to the proposed Project and based on data from the Moreno Valley Traffic Model.

Information for Existing (2011) conditions is disclosed above in Subsection 4.11.2 and represents the baseline traffic conditions as they existed at the time this analysis was prepared (2011).

The Existing (2011) plus Project (E+P) analysis determines direct Project-related traffic impacts that would occur on the existing roadway system in the theoretical scenario of the Project being placed upon existing conditions. Because the Project is not expected to be fully built and occupied until 2016, the E+P scenario is presented to disclose direct impacts as required by CEQA.

The Opening Year (2016) analysis determines the Project-related traffic impacts based on a comparison of the Existing plus Ambient Growth plus Project (E+A+P) traffic conditions to the

Existing (2011) and Existing plus Ambient Growth (E+A) conditions. The Opening Year (2016) conditions analysis uniquely identifies the specific traffic impacts associated with the development of the proposed Project. To account for background traffic, a total ambient growth from Existing (2011) conditions of 10.4% (2% per year x 5 years, compounded annually) is included for Opening Year (2016) conditions. Cumulative development projects are not included as part of the Opening Year (2016) analysis. The Opening Year (2016) analysis is intended to identify the direct impacts associated solely with the development of the proposed Project based on the expected background growth within the study area.

The Horizon Year (2016) conditions analysis is utilized to determine if improvements funded through local and regional transportation mitigation fee programs such as the TUMF program, City of Moreno Valley Development Impact Fee (DIF) program, or other approved funding mechanism (Community Facilities District, etc.) can accommodate the cumulative traffic at the target LOS identified in the City of Moreno Valley General Plan. If the "funded" improvements can provide the target LOS, then the Project's payment into the TUMF and DIF is considered as cumulative mitigation as imposed through Conditions of Approval applied to the Project by the City of Moreno Valley. If other improvements are needed beyond the "funded" improvements (such as localized improvements to non-TUMF or non-DIF facilities), they are identified as such.

To account for background traffic in Horizon Year 2016, 52 other known cumulative development projects in the study area were included in addition to the 10.4% ambient. This comprehensive list of cumulatively projects was compiled from information provided by the City of Moreno Valley Planning Department in April 2011 and research conducted in April and May 2011 to identify pending development projects and development applications on file with adjacent jurisdictions within an approximate three-mile radius of the site, including portions of the City of Perris, City of Riverside, unincorporated Riverside County, and the March JPA.

Lastly, because the Project proposes a minor network change to a City of Moreno Valley Circulation Element roadway (the realignment and reclassification of a planned segment of Krameria Avenue through the Project site as described in Subsection 3.3.4 of this EIR), a General Plan Buildout analysis also was performed to assess long-term impacts. Because the Project's proposed land use is consistent with the adopted Specific Plan for the area (the Moreno Valley Industrial Area Plan; Specific Plan No. 208), and the network change for Krameria Avenue is not anticipated to substantially impact regional roadways in the area, only study area intersections in close proximity to the proposed Project are required to be assessed for General Plan Buildout conditions. This analysis determines if the proposed change to the City of Moreno Valley Circulation Element is adequate to accommodate projected traffic at the target LOS for future buildout conditions, or if additional mitigation is necessary.

C. Existing (2011) Plus Project Traffic Analysis (E+P)

For purposes of full disclosure and in an effort to satisfy CEQA Guidelines Section 15125(a), this subsection presents an analysis of existing traffic volumes plus traffic generated by the proposed Project (Existing plus Project, or E+P). The reason this particular analysis scenario is provided is to disclose the potential for direct impacts to the existing environment as required by CEQA. The E+P scenario rarely materializes as an actual scenario in the real world. The time period between the date a Notice of Preparation for an EIR is issued and the date project buildout occurs can often be a period of several years or more. (In the case of the proposed Project, the time period estimated between this EIR's NOP (2011) and estimated Project buildout (2016) is five (5) years.) During this time period,

conditions are not static. Other projects are being constructed, the transportation network is evolving, and traffic patterns are changing. Therefore, the E+P scenario is very unlikely to materialize in real world conditions and thus does not accurately describe the environment that exists when a particular project is constructed and becomes operational (Urban Crossroads 2011e 99). Regardless, the E+P scenario is analyzed to satisfy CEQA requirements to identify the Project's impacts to the existing environment.

Average daily traffic (ADT) for the E+P conditions is shown on Figure 4.11-23 and AM and PM peak hour intersection turning movement volumes for E+P are shown on Figure 4.11-24 (24a and 24b) and Figure 4.11-25 (25a and 25b).

❑ E+P Roadway Segments Analysis

Roadway segment capacities for E+P conditions were analyzed based on the methodology discussed in Subsection 4.11.3B. Out of 63 study area roadway segments (Table 4.11-1, *Roadway Segment Analysis Locations*), 61 would operate at an acceptable LOS (with 52 segments operating at LOS "A") and two would operate at an unacceptable LOS with the addition of Project traffic to the existing condition. The E+P conditions roadway segment analysis indicates that the following two locations are anticipated to operate at an unacceptable LOS.

ID	Roadway Segment	Jurisdiction
5	Cactus Avenue west of Frederick Street – LOS "E"	MV, MJPA
40	Heacock Street from Gentian Avenue to Iris Avenue – LOS "F"	MV, MJPA

Source: Urban Crossroads, Inc. 2011e, Section 5.3

Table 4.11-17, *Existing Plus Project (E+P) Conditions Roadway Volume/Capacity (V/C) Analysis*, summarizes the E+P conditions roadway segment capacity analysis based on the LOS thresholds identified in Table 4.11-11.

The operation of Cactus Avenue west of Frederick Street (ID #5) is projected to operate at LOS "E," whereas the threshold for acceptable operation established by the City of Moreno Valley General Plan and March JPA General Plan is LOS "D." This is considered a significant direct impact of the proposed Project. A review of the peak hour operations at the adjacent intersection of Frederick Street and Cactus Avenue for E+P conditions indicates that the intersection is projected to operate at an acceptable LOS (see below discussion of E+P intersections). As such, it would appear that widening of this segment of Cactus Avenue is not necessary to achieve acceptable peak hour operations. The roadway segment immediately west of Frederick Street to Veterans Way is the only segment in the area not improved to three travel lanes in the westbound direction and is the likely cause of this roadway segment operating at an unacceptable LOS in the E+P scenario. There is warehouse project (Plot Plan PA08-0072) proposed on the northwest corner of Frederick Street and Cactus Avenue that is currently in the City of Moreno Valley plan check process and is anticipated to begin construction in 2012. This warehouse project is conditioned to construct a five-lane section (three westbound and two eastbound lanes with a raised median) along Cactus Avenue, west of Frederick Street. The City of Moreno Valley anticipates that once this warehouse project constructs the five-lane section on Cactus Avenue, west of Frederick Street, there would no longer be a Project-related impact at this location.

The segment of Heacock Street from Gentian Avenue to Iris Avenue would operate at LOS "F," whereas the threshold for acceptable operation established by the City of Moreno Valley General Plan and March JPA General Plan is LOS "D." This segment also operates at LOS "F" under existing conditions without the addition of Project traffic (refer to Subsection 4.11.2C). Because the Project would contribute more than 50 peak hour trips to an already unacceptable LOS, the impact is identified as a significant direct impact.

❑ E+P Intersections Analysis

E+P peak hour traffic operations were evaluated for study area intersections based on the methodologies presented in Subsection 4.11.3B. In the E+P condition, of the 33 existing study area intersections, 32 intersections would operate at acceptable LOS during the peak hours and one intersection would operate at unacceptable LOS during the peak hours. The E+P conditions operations analysis shows that the following intersection would experience unacceptable LOS "F" conditions during the PM peak hour only, whereas the acceptable LOS is "D."

ID	Intersection Location	Jurisdiction
9	Heacock Street / Iris Avenue – LOS "F" during PM peak hour	MV, MJPA

Figure 4.11-23, *Existing Plus Project (E+P) Peak Hour Intersection Level of Service (LOS)*, summarizes the AM and PM peak hour study area intersection LOS for the Existing (2011) conditions plus the Project, consistent with the summary provided in Table 4.11-18, *Intersection Analysis for Existing Plus Project (E+P) Conditions*.

Comparing Table 4.11-6 with Table 4.11-18 (Intersection Analyses for Existing (2011) conditions and E+P conditions), the intersection of Heacock Street and Iris Avenue (ID # 9) in the PM peak hour operates at LOS "F" under both Existing (2011) and E+P scenario, whereas the City of Moreno Valley General Plan and March JPA General Plan establish an acceptable LOS of "D." Because the Project would add more than 50 peak hour trips to these intersections (as shown by comparing Figure 4.11-2 and Figure 4.11-4 (Existing (2011) AM and PM Peak Hour Intersection Volumes) with Figure 4.11-24 and Figure 4.11-25 (E+P AM and PM Peak Hour Intersection Volumes)), the impact is identified as a significant direct impact.

D. Opening Year Traffic Analysis (Opening Year (2016))

The Opening Year (2016) conditions analysis determines the Project-related traffic impacts based on a comparison of the Existing plus Ambient Growth plus Project (E+A+P) traffic conditions to the Existing (2011) and Existing plus Ambient Growth (E+A) conditions. The Opening Year (2016) conditions analysis uniquely identifies the specific traffic impacts associated with the development of the proposed Project. To account for background traffic, a total ambient growth from conditions of 10.4% (2% per year x 5 years, compounded annually) is included for Opening Year (2016) conditions. The Opening Year (2016) analysis is intended to identify the project-specific impacts associated solely with the development of the proposed Project based on the expected background growth within the study area.

The lane configurations and traffic controls assumed to be in place for Opening Year (2016) conditions are consistent with those shown previously on Figure 4.11-2 for existing conditions, with the exception of Project driveways and those facilities assumed to be constructed by the Project to

provide site access, which are also assumed to be in place for Opening Year (2016) with Project conditions only.

ADT volumes for the Opening Year (2016) Without Project (E+A) conditions are shown on Figure 4.11-27, and AM and PM peak hour intersection turning movement volumes for Opening Year (2016) Without Project (E+A) conditions are shown on Figure 4.11-28 (28a and 28b) and Figure 4.11-29 (29a and 29b). ADT volumes for the Opening Year (2016) With Project (E+A+P) conditions are shown on Figure 4.11-31, and AM and PM peak hour intersection turning movement volumes for Opening Year (2016) With Project (E+A+P) conditions are shown on Figure 4.11-32 (32a and 32b) and Figure 4.11-33 (33a and 33b).

❑ Opening Year (2016) Roadway Segments Analysis

Roadway segment capacities for Opening Year (2016) Without Project (E+A) conditions were determined based on the methodology discussed in Subsection 4.11.3B. Of the 63 roadway segments in the study area, 60 would operate at an acceptable LOS under the E+A scenario and three (3) segments (ID #5, #15, and #40) would operate at an unacceptable LOS under the E+A scenario. The E+A conditions roadway segment analysis indicates that the following roadway segments are anticipated to operate at an unacceptable LOS without the addition of Project traffic:

ID	Roadway Segment	Jurisdiction
5	Cactus Avenue west of Frederick Street – LOS "E"	MV, MJPA
16	Iris Avenue west of Indian Street – LOS "E"	MV
40	Heacock Street from Gentian Avenue to Iris Avenue – LOS "F"	MV, MJPA

Source: Urban Crossroads, Inc. 2011e, Section 6.5.

With the addition of Project traffic for Opening Year (2016) (E+A+P), the same three (3) roadway segments and an additional three (3) segments (ID #3, #4, and #33) are anticipated to operate at an unacceptable LOS:

ID	Roadway Segment	Jurisdiction
3	Cactus Avenue from I-215 NB On-Ramp to I-215 NB Ramps – LOS "E"	RivCo
4	Cactus Avenue east of I-215 Freeway (I-215 to Elsworth Street) – LOS "E"	RivCo, MV
5	Cactus Avenue west of Frederick Street (Veterans Way to Frederick Street) – LOS "E"	MV, MJPA
16	Iris Avenue west of Indian Street – LOS "E"	MV
33	Harley Knox Boulevard west of Indian Street – LOS "E"	Perris
40	Heacock Street from Gentian Avenue to Iris Avenue – LOS "F"	MV, MJPA

Source: Urban Crossroads, Inc. 2011e, Section 6.5.

Table 4.11-17, *Opening Year (2016) Conditions Roadway Volume/Capacity (V/C) Analysis*, summarizes the Opening Year (2016) Without Project (E+A) and With Project (E+A+P) conditions roadway segment capacity analysis based on the LOS thresholds identified in Table 4.11-11.

The addition of Project traffic to the roadway network would cause three roadway segments (ID #s 3, 4, and 33) to degrade in LOS from acceptable to unacceptable levels (based on the LOS thresholds

established by governing General Plans), resulting in a significant cumulative impact. Additionally, the Project would contribute 50 or more peak hour trips to three roadway segments that would operate at unacceptable LOS without the Project. With the addition of at least 50 peak hour trips, the Project would make a cumulatively considerable contribution to this significant cumulative impact. Analysis of these six (6) segments conducted by Urban Crossroads indicates that the widening of these roadway segments is not necessary to achieve acceptable levels of service. Acceptable LOS can be achieved by addressing intersection deficiencies that adversely affect the operation of these segments. (Urban Crossroads 2001f 132 and 135)

❑ Opening Year (2016) Intersections Analysis

Opening Year (2016) Without Project (E+A) peak hour traffic operations were evaluated for study area intersections based on the methodologies presented in Subsection 4.11.3B. In the E+A condition, of the 33 study area intersections, 31 intersections would operate at an acceptable LOS during the peak hours. The following two (2) intersections would operate at unacceptable LOS during the peak hours:

ID	Intersection Location	Jurisdiction
9	Heacock Street / Iris Avenue – LOS "F" during PM peak hour	MV, MJPA
29	Indian Street / Iris Avenue – LOS "E" during AM peak hour	MV

Source: Urban Crossroads, Inc. 2011e, Section 6.4.

Figure 4.11-32 (32a and 32b) and Figure 4.11-33 (33a and 33b), *Opening Year (2016) With Project (E+A+P) Peak Hour Intersection Level of Service (LOS)*, summarizes the AM and PM peak hour study area intersection LOS for E+A+P conditions. Resulting ADT Volumes are indicated on Figure 4.11-34. As shown on Table 4.11-20, the addition of Project traffic (E+A+P) would worsen the peak hour operations of these the two intersections identified above (ID #9 and #29) and cause an additional intersection (ID # 8) to operate at an unacceptable LOS:

ID	Intersection Location	Jurisdiction
8	Heacock Street / Gentian Avenue – LOS "E" during PM peak hour	MV, MJPA
9	Heacock Street / Iris Avenue – LOS "E" during the AM peak hour and LOS "F" during the PM peak hour	MV, MJPA
29	Indian Street / Iris Avenue – LOS "E" during the AM peak hour	MV

Source: Urban Crossroads, Inc. 2011e, Section 6.4.

Because the Project would add more than 50 peak hour trips to the two intersections of Heacock Street at Gentian Avenue (ID #8) and Heacock Street at Iris Avenue (ID #9), the impact is identified as a significant direct impact. While the intersection of Indian Street at Iris Avenue (ID #29) is anticipated to operate at an unacceptable LOS "E" with the addition of Project traffic (E+A+P), the Project would not contribute more than 50 peak hour trips to this intersection; therefore, based on the significance criteria cited in Subsection 4.11.3A, the Project's impact to that intersection (ID #29) is considered less than significant.

E. Horizon Year Traffic Analysis (Horizon Year (2016))

As discussed in Subsection 4.02, CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a proposed project. The Horizon Year (2016) analysis determines the Project-related traffic impacts based on a comparison of the traffic volumes expected in 2016 without and with development of the proposed Project, including background traffic from cumulative development projects. To account for background traffic, 52 other known cumulative development projects in the study area were included in addition to 10.4% of ambient growth (refer to Subsection 4.11.3B, *Cumulative Impact Analysis*, for a description of the methodology used for this analysis. The analysis of cumulative traffic impacts for Horizon Year (2016) uses the methodology that is required by the City of Moreno Valley Transportation Engineering Division's Traffic Impact Analysis Preparation Guide (August 2007).

The lane configurations and traffic controls assumed to be in place for Horizon Year (2016) conditions are consistent with those shown previously on Figure 4.11-2 for existing conditions, with the exception of Project driveways and those facilities assumed to be constructed by the Project to provide site access (described in Section 3.0, Project Description and will be enforced by the Project's Conditions of Approval), which are also assumed to be in place for Horizon Year (2016) with Project conditions only.

ADT volumes for the Horizon Year (2016) Without Project (E+A+C) conditions are shown on Figure 4.11-35, and AM and PM peak hour intersection turning movement volumes for Horizon Year (2016) Without Project (E+A+C) conditions are shown on Figure 4.11-36 (36a and 36b) and Figure 4.11-37 (37a and 37b). ADT volumes for the Horizon Year (2016) With Project (E+A+C+P) conditions are shown on Figure 4.11-38, and AM and PM peak hour intersection turning movement volumes for Horizon Year (2016) With Project (E+A+C+P) conditions are shown on Figure 4.11-39 (39a and 39b) and Figure 4.11-40 (40a and 40b).

❑ Horizon Year (2016) Roadway Segments Analysis

Roadway segment capacities for Horizon Year (2016) Without Project (E+A+C) conditions were analyzed based on the methodology discussed in Subsection 4.11.3B. Out of 63 study area roadway segments, 47 would operate at an acceptable LOS. The following 16 roadway segments would operate at an unacceptable LOS:

ID	Roadway Segment	Jurisdiction
2	Cactus Avenue between I-215 SB Ramps to I-215 NB On-Ramp – LOS "F"	RivCo
3	Cactus Avenue between I-215 NB On-Ramp to I-215 NB Ramps – LOS "F"	RivCo
4	Cactus Avenue east of I-215 Freeway (I-215 to Elsworth Street) – LOS "F"	RivCo, MV
5	Cactus Avenue west of Frederick Street (Veterans Way to Frederick Street) – LOS "F"	MV, MJPA
6	Cactus Avenue east of Frederick Street – LOS "F"	MV, MJPA
7	Cactus Avenue west of Heacock Street – LOS "E"	MV, MJPA
16	Iris Avenue west of Indian Street – LOS "F"	MV
26	San Michele Road between Heacock Street and Indian Street – LOS "F"	MV
32	Harley Knox Boulevard east of I-215 Freeway – LOS "F"	Perris
33	Harley Knox Boulevard west of Indian Street – LOS "F"	Perris

ID	Roadway Segment	Jurisdiction
34	Harley Knox Boulevard east of Indian Street – LOS "E"	Perris
40	Heacock Street between Gentian Avenue to Iris Avenue – LOS "F"	MV, MJPA
46	Heacock Street north of San Michele Road – LOS "F"	MV, MJPA
60	Indian Street between San Michele Road to Nandina Avenue – LOS "F"	MV
61	Indian Street south of Nandina Avenue – LOS "F"	MV
62	Indian Street north of Harley Knox Boulevard – LOS "F"	Perris

Source: Urban Crossroads, Inc. 2011e, Section 7.5.

Table 4.11-21, *Horizon Year (2016) Conditions Roadway Volume/Capacity (V/C) Analysis*, summarizes the Horizon Year (2016) Without Project (E+A+C) and With Project (E+A+C+P) conditions roadway segment capacity analysis based on the LOS thresholds identified in Table 4.11-11. As shown in Table 4.11-21, there are no additional roadway segments that are anticipated to operate at unacceptable LOS with the addition of Project traffic. However, because the Project would contribute more than 50 peak hour trips to these roadway segments, the Project would make a cumulatively considerable contribution to this significant cumulative impact. An analysis of these roadway segments by Urban Crossroads concluded that all of the roadway segments could be improved to acceptable LOS with improvements to intersections (including the addition of some through lanes) without the need for additional roadway widening (Urban Crossroads 2011e 163).

❑ Horizon Year (2016) Intersections Analysis

Horizon Year (2016) Without Project (E+A+C) peak hour traffic operations were evaluated for study area intersections based on the methodologies presented in Subsection 4.11.3B. In the Horizon Year (2016) Without Project (E+A+C) condition, of the 33 study area intersections, 21 intersections would operate at acceptable LOS during the peak hours. As shown on Table 4.11-22, *Intersection Analysis for Horizon Year (2016) Conditions*, the following 12 intersections would operate at unacceptable LOS "E" or "F" during one or both of the peak hours for Horizon Year (2016) Without Project (E+A+C) conditions:

ID	Intersection Location	Jurisdiction
1	I-215 Southbound Ramps / Cactus Avenue – LOS "F" during AM and PM peak hours	Caltrans
2	I-215 Southbound Ramps / Harley Knox Boulevard – LOS "F" during AM and PM peak hours	Caltrans
3	I-215 Northbound Ramps / Cactus Avenue – LOS "F" during AM and PM peak hours	Caltrans
4	I-215 Northbound Ramps / Harley Knox Boulevard – LOS "F" during AM and PM peak hours	Caltrans
5	Frederick Street / Cactus Avenue – LOS "F" during AM peak hour	MV, MJPA
6	Heacock Street / Cactus Avenue – LOS "F" during AM peak hour; LOS "E" during PM peak hour	MV, MJPA
8	Heacock Street / Gentian Avenue – LOS "F" during AM and PM peak hours	MV, MJPA

ID	Intersection Location	Jurisdiction
9	Heacock Street / Iris Avenue – LOS "F" during AM and PM peak hours	MV, MJPA
14	Heacock Street / San Michele Road – LOS "F" during AM peak hour; LOS "E" during PM peak hour	MV, MJPA
31	Indian Street / San Michele Road – LOS "F" during AM and PM peak hours	MV
32	Indian Street / Nandina Avenue – LOS "F" during AM and PM peak hours	MV
33	Indian Street / Harley Knox Boulevard – LOS "F" during AM and PM peak hours	Perris

Source: Urban Crossroads, Inc., 2011e, Section 7.4

Figure 4.11-41, *Horizon Year (2016) Without Project (E+A+C) Peak Hour Intersection Level of Service (LOS)*, summarizes the AM and PM peak hour study area intersection LOS for Horizon Year (2016) Without Project (E+A+C) conditions. Figure 4.11-42, *Horizon Year (2016) With Project (E+A+C+P) Peak Hour Intersection Level of Service (LOS)*, summarizes the AM and PM peak hour study area intersection LOS for Horizon Year (2016) With Project (E+A+C+P) conditions, consistent with the summary provided in Table 4.11-22.

The proposed Project would contribute more than 50 peak hour trips to the 12 intersections listed above (as shown by comparing Figure 4.11-36 (36a and 36b) and Figure 4.11-37 (37a and 37b) (Horizon Year (2016) (E+A+C) with Figure 4.11-39 (39a and 39b) and Figure 4.11-40 (40a and 40b) (E+A+C+P). Thus, the Project would make a cumulatively considerable contribution to this significant cumulative impact. Additionally, the addition of Project traffic (E+A+C+P) would cause one additional intersection (Heacock Street at Krameria Avenue (EW), ID #12) to worsen from an acceptable to unacceptable LOS, resulting in a significant cumulative impact.

ID	Intersection Location	Jurisdiction
12	Heacock Street / Krameria Avenue (EW) – LOS "F" during the PM peak hour	MV, MJPA

For Horizon Year (2016) without Project (E+A+C) conditions, *Technical Appendix J* indicates that a traffic signal appears to be warranted at Heacock Street/Krameria Avenue (EW), with or without the addition of Project traffic.

F. General Plan Buildout Conditions

The Project proposes a minor network change to a City of Moreno Valley Circulation Element roadway segment (Krameria Avenue); therefore, a General Plan buildout analysis was performed to assess the potential for long-term impacts to the transportation system. Specifically, the Project proposes to realign and reclassify the future planned extension of Krameria Avenue (EW) through the Project site from a minor arterial to an industrial collector, as described in EIR Section 3.0. Because the proposed Project is otherwise consistent with the City of Moreno Valley's General Plan and the adopted Specific Plan for the area (the Moreno Valley Industrial Area Plan; Specific Plan No. 208), and the network change is not anticipated to substantially impact regional roadways in the area, only study area intersections in close proximity to the proposed Project were assessed for General Plan buildout conditions. This analysis determines if the proposed change to the City of Moreno Valley Circulation Element is adequate to accommodate future traffic volumes at the target LOS, or if additional mitigation is necessary.

❑ General Plan Buildout Intersections Analysis

The proposed Circulation Element change would only affects intersections in close proximity to the Project site; therefore, the City of Moreno Valley determined that 20 existing and future intersections and their connecting roadway segments warranted an analysis of General Plan buildout conditions:

ID	Intersection Location	Jurisdiction
9	Heacock Street / Iris Avenue	MV, MJPA
10	Heacock Street / Driveway 1	MV, MJPA
11	Heacock Street / Driveway 2	MV, MJPA
12	Heacock Street / Krameria Avenue (EW)	MV, MJPA
13	Heacock Street / Driveway 3	MV, MJPA
16	Driveway 4 / Iris Avenue	MV
17	Driveway 5 / Krameria Avenue (EW)	MV
18	Driveway 6 / Iris Avenue	MV
19	Driveway 7 / Krameria Avenue (EW)	MV
20	Driveway 8 / Krameria Avenue (EW)	MV
21	Driveway 9/Concord Way / Iris Avenue	MV
22	Driveway 10 / Krameria Avenue (EW)	MV
23	Cosmos Street / Driveway 11	MV
24	Cosmos Street / Driveway 12	MV
25	Cosmos Street / Driveway 13	MV
26	Cosmos Street / Krameria Avenue (EW)	MV
27	Krameria Avenue (NS) / Driveway 14	MV
28	Krameria Avenue (NS) / Driveway 15/Krameria Avenue	MV
29	Indian Street / Iris Avenue	MV
30	Indian Street / Krameria Avenue	MV

Source: Urban Crossroads 2011e, Section 8.0.

Traffic projections for General Plan buildout with Project conditions were derived from the Moreno Valley Traffic Model (MVTM) using accepted procedures for model forecast refinement and smoothing. The traffic forecasts reflect the area-wide growth anticipated between Existing (2011) conditions and General Plan buildout conditions. Therefore, as directed by the City of Moreno Valley Transportation Engineering Division, the General Plan buildout peak hour forecasts were refined using the long-range forecasts, along with existing peak hour traffic count data collected at each analysis location in May 2011. Future estimated peak hour traffic data was used for new intersections and intersections with an anticipated change in travel patterns to further refine the General Plan buildout peak hour forecasts. Lastly, General Plan buildout turning volumes were compared to Horizon Year (2016) with Project (E+A+C+P) volumes (refer to in order to ensure a minimum growth of 10% as a part of the refinement process. The minimum 10% growth includes any additional growth between Horizon Year (2016) with Project (E+A+C+P) and General Plan buildout traffic conditions that is not accounted for by the traffic generated by cumulative

development projects and the ambient growth between existing and Horizon Year (2016) with Project (E+A+C+P) conditions.

The initial estimate of the future General Plan buildout peak hour turning movements was then reviewed by Urban Crossroads for reasonableness at intersections where model results showed unreasonable turning movements. The initial raw model estimates were adjusted to achieve flow conservation, reasonable growth, and reasonable diversion between parallel routes.

As the MVTM does not provide truck volumes or percentage of truck traffic, the percentage of truck traffic under Horizon Year (2016) with Project (E+A+C+P) conditions was used to estimate future truck volumes at each of the study area intersections and roadway segments. The truck traffic also was flow conserved[1] between closely spaced study area intersections for purposes of maintaining flow of heavy vehicles in simulations for the progression analyses, with concurrence by the City of Moreno Valley Transportation Engineering Division.

Weekday ADT volumes expected for General Plan buildout without Project traffic conditions are shown on Figure 4.11-43, *General Plan Buildout Without Project Average Daily Traffic (ADT)*. AM and PM peak hour intersection turning movement volumes for General Plan buildout without Project traffic conditions are shown on Figure 4.11-44, *General Plan Buildout Without Project AM Peak Hour Intersection Volumes*, and Figure 4.11-45, *General Plan Buildout Without Project PM Peak Hour Intersection Volumes*.

General Plan buildout with Project traffic conditions assumes the Project's proposed reclassification and alignment of Krameria Avenue (EW) through the Project site. The weekday ADT volumes expected for General Plan buildout with Project traffic conditions are shown on Figure 4.11-46, *General Plan Buildout With Project Average Daily Traffic (ADT)*. AM and PM peak hour intersection turning movement volumes for General Plan buildout with Project traffic conditions are shown Figure 4.11-47, *General Plan Buildout With Project AM Peak Hour Intersection Volumes*, and Figure 4.11-48, *General Plan Buildout With Project PM Peak Hour Intersection Volumes*.

Comparing Figure 4.11-43 and Figure 4.11-46 indicates relatively small changes in local travel patterns and small fluctuations in peak hour delay values (Urban Crossroads 2011e 187).

❑ General Plan Buildout Roadway Segments Analysis

Roadway segment capacities for General Plan Buildout without Project conditions were determined based on the methodology discussed in Subsection 4.11.3B. Of the 30 study area roadway segments studied for the General Plan Buildout scenario, 29 are calculated to operate at an acceptable LOS under the General Plan Buildout scenario and one (1) segment (ID #55) would operate at an unacceptable LOS both without and with the Project. The General Plan Buildout roadway analysis indicates that the following roadway segment is anticipated to operate at an unacceptable LOS "E," based on the City of Moreno Valley's planning level daily roadway capacity thresholds, with or without the proposed Project and its proposed amendment to the City of Moreno Valley Circulation Element:

[1] Flow conservation is the process of balancing vehicle trips (e.g., passenger cars and trucks) to ensure vehicles exiting an intersection are equal to the number of vehicles entering an adjacent, closely-spaced intersection.

ID	Roadway Segment	Jurisdiction
55	Indian Street north of Iris Avenue – LOS "E"	MV

Table 4.11-23, *General Plan Buildout Conditions Roadway Volume/Capacity (V/C) Analysis*, summarizes the roadway segment General Plan Buildout Conditions without Project and with Project conditions based on the LOS thresholds identified in Table 4.11-11.

Based on the results of the analysis, the Project's proposed amendment to the City of Moreno Valley's Circulation Element would not result in a significant direct or cumulative impact to the surrounding roadway system. However, the Project would contribute 50 or more peak hour trips to this roadway segment, which is considered a cumulatively considerable contribution to a significant cumulative impact.

❑ General Plan Buildout Intersections Analysis

General Plan Buildout peak hour traffic operations were evaluated for the study area intersections based on the methodologies presented in Subsection 4.11.3B. In the General Plan Buildout condition, all study area intersections are anticipated to operate at an acceptable LOS during the peak hours. Changes in peak hour intersection delay with and without the proposed reclassification and alignment of Krameria Avenue (EW) are shown in Table 4.11-24, *Intersection Analysis Summary for General Plan Buildout Conditions*. Relatively small changes in local travel patterns result in fluctuations in peak hour delay values when comparing with and without Project forecasts; however, no intersection is projected to fall below the LOS threshold. Impacts would be less than significant.

Threshold 2: ***Would the Project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?***

The Riverside County Congestion Management Plan (CMP) prepared by the Riverside County Transportation Commission (RCTC) is applicable to the Project because I-215 is CMP Roadway (RCTC 2010 2-5) and the Project will contribute traffic to the travel lanes and ramps of I-215. As shown on Figure 4.11-18, it is estimated that 45% of passenger cars accessing the Project site would use I-215. And, as shown on Figure 4.11-19, it is estimated that 85% of trucks accessing the Project site would use I-215.

For the purpose of analysis, I-215 in the study area (from north of Cactus Avenue to south of Harley Knox Boulevard) has been broken into segments defined by the freeway-to-arterial interchange locations. As noted previously, the RCTC has plans in place for the widening of I-215 through the study area; however, a schedule for the widening has not been set due to the state's ongoing budget challenges (RCTC n.d.). As such, the future widening was not assumed as the base condition. Widening of the I-215 Freeway as planned by RCTC is noted in the analysis of future conditions as "with improvements" only.

The same analysis scenarios presented above under Threshold 1 (E+P, E+A+P, and E+A+C+P) are analyzed below and in *Technical Appendix J.*

A. Existing (2011) Plus Project CMP Analysis (E+P)

As previously stated, for purposes of full disclosure and in an effort to satisfy CEQA Guidelines Section 15125(a), this subsection presents an analysis of existing traffic volumes plus traffic generated by the proposed Project (Existing plus Project, or E+P). The E+P scenario rarely materializes as an actual scenario in the real world because conditions are not static. Other projects are being constructed, the transportation network is evolving, and traffic patterns are changing. Regardless, the E+P scenario is analyzed to satisfy CEQA requirements to identify the Project's impacts to the existing environment.

❑ E+P Freeway Segment Analysis

E+P mainline directional volumes for I-215 for the AM and PM peak hours are shown on Figure 4.11-49, *Existing Plus Project (E+P) I-215 Freeway Mainline Volumes*. As shown in Table 4.11-25, *Existing Plus Project (E+P) Conditions Basic Freeway Segment Analysis*, I-215 Freeway segments in the study area were found to operate at an acceptable LOS (LOS "E" or better) during the peak hours for E+P traffic conditions. Project-related impacts would thus be less than significant.

❑ E+P Freeway Ramp Analysis

A traffic progression analysis was performed for the southbound and northbound ramps at the I-215/Cactus Avenue and I-215/Harley Knox Boulevard interchanges to assess peak hour vehicle queues at the on and off ramps and along the arterials adjacent to the I-215 Freeway that may potentially affect the peak hour operations of the ramp-to-arterial intersections for the E+P traffic conditions. The Project would add traffic to the I-215 ramp intersection lanes at Harley Knox Boulevard that experience queuing issues under existing conditions. No new queuing issues would be created with the addition of Project traffic. Table 4.11-26, *Existing Plus Project (E+P) Conditions Stacking Length Summary at I-215/Cactus Avenue and I-215/Harley Knox Boulevard*, summarizes the AM and PM hour stacking lengths for the study area interchanges in the E+P conditions.

Additionally, and as shown in Table 4.11-27, *Existing Plus Project (E+P) I-215 Freeway Ramp Junction Merge/Diverge Analysis*, the I-215 Freeway ramp merge and diverge areas would operate at acceptable LOS "E" or better during the peak hours under E+P traffic conditions. Project-related impacts would thus be less than significant.

B. Opening Year CMP Analysis (Opening Year (2016))

The Opening Year (2016) conditions analysis determines the Project-related effects on I-215 based on a comparison of the Existing plus Ambient Growth plus Project (E+A+P) traffic conditions to the Existing (2011) and Existing plus Ambient Growth (E+A) conditions.

❑ Opening Year (2016) Freeway Segment Analysis

Opening Year (2016) mainline directional volumes for I-215 for the AM and PM peak hours (without and with Project) are shown on Figure 4.11-50, *Opening Year (2016) Without Project (E+A) I-215 Freeway Mainline Volumes*, and Figure 4.11-51, *Opening Year (2016) With Project (E+A+P) I-215 Freeway Mainline Volumes*. As shown in Table 4.11-28, *Opening Year (2016) Conditions Basic Freeway Segment Analysis*, I-215 Freeway segments in the study area were found to operate at an acceptable LOS during the peak hours for Opening Year (2016) without and with Project traffic conditions. Project-related impacts would thus be less than significant.

❑ Opening Year (2016) Freeway Ramp Analysis

A traffic progression analysis was performed for the affected southbound and northbound ramps. The Project would add traffic to the following three I-215 ramp intersection lanes that experience queuing issues without the Project:

Freeway Ramp Intersection Location	Movement
I-215 Northbound Ramps / Cactus Avenue	Northbound Left Turn Lane
I-215 Southbound Ramps / Harley Knox Boulevard	Westbound Left Turn Lane
I-215 Northbound Ramps / Harley Knox Boulevard	Eastbound Left Turn Lane

Source: Urban Crossroads, Inc., Section 6.7.

Table 4.11-29, *Opening Year (2016) Conditions Stacking Length Summary at I-215/Cactus Avenue and I-215/Harley Knox Boulevard*, summarizes the AM and PM hour stacking lengths for the study area interchanges in the Opening Year (2016) conditions, both without and with the Project.

As shown in Table 4.11-30, *Opening Year (2016) I-215 Freeway Ramp Junction Merge/Diverge Analysis*, the I-215 Freeway ramp merge and diverge areas are expected to operate at acceptable service levels for Opening Year (2016) traffic conditions, both without and with the Project. Project-related impacts would thus be less than significant.

C. Horizon Year Traffic Analysis (Horizon Year (2016))

As discussed in Subsection 4.02, CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a proposed project. The Horizon Year (2016) analysis determines the Project-related traffic impacts based on a comparison of the traffic volumes expected in 2016 without and with development of the proposed Project, including background traffic from cumulative development projects. Refer to Subsection 4.11.3B, *Cumulative Impact Analysis*, for a description of the methodology used for this analysis.

❑ Horizon Year (2016) Freeway Segment Analysis

Horizon Year (2016) mainline directional volumes for I-215 for the AM and PM peak hours (without and with Project) are shown on Figure 4.11-52, *Horizon Year (2016) Without Project (E+A+C) I-215 Freeway Mainline Volumes*, and Figure 4.11-53, *Horizon Year (2016) With Project (E+A+C+P) I-215 Freeway Mainline Volumes*. As shown in Table 4.11-31, *Horizon Year (2016) Conditions Basic Freeway Segment Analysis*, the following four I-215 Freeway segments in the study area were found to operate at unacceptable LOS during the peak hours for Horizon Year (2016) without and with Project traffic conditions:

I-215 Freeway Direction of Travel	Freeway Segment
I-215 Freeway Southbound	South of Cactus Avenue
I-215 Freeway Southbound	North of Harley Knox Boulevard
I-215 Freeway Southbound	South of Harley Knox Boulevard
I-215 Freeway Northbound	South of Cactus Avenue

Source: Urban Crossroads, Inc., Section 7.8.

As shown in Table 4.11-31, the addition of Project traffic would not cause any freeway segment to worsen from an acceptable to unacceptable LOS.

As noted previously, a schedule for the widening I- 215 between Nuevo Road in the City of Perris and Box Springs Road in the City of Riverside has not been set, due to the state's ongoing budget challenges. The widening project includes the addition of a carpool lane in each direction of travel over a 10.75-mile section of I-215. Until the widening is in place, which would relieve the deficiencies, the Project is presumed to make a cumulatively considerable contribution to a significant cumulative impact at these four freeway segments.

❑ Horizon Year (2016) Freeway Ramp Analysis

A traffic progression analysis was performed for the affected southbound and northbound ramps. Table 4.11-32, *Horizon Year (2016) Conditions Stacking Length Summary at I-215/Cactus Avenue and I-215/Harley Knox Boulevard*, summarizes the AM and PM hour stacking lengths for the study area interchanges in the Horizon Year (2016) conditions, both without and with the Project. The following 12 movements are anticipated to experience queuing issues during peak 95th percentile traffic flows:

Freeway Ramp Intersection Location	Movement
I-215 Southbound Ramps / Cactus Avenue	Eastbound Through Lane
I-215 Southbound Ramps / Cactus Avenue	Westbound Left Turn Lane
I-215 Northbound Ramps / Cactus Avenue	Northbound Left Turn Lane
I-215 Northbound Ramps / Cactus Avenue	Eastbound Through Lane
I-215 Northbound Ramps / Cactus Avenue	Westbound Through Lane
I-215 Southbound Ramps / Harley Knox Boulevard	Southbound Through Lane
I-215 Southbound Ramps / Harley Knox Boulevard	Southbound Right Turn Lane
I-215 Southbound Ramps / Harley Knox Boulevard	Westbound Left Turn Lane
I-215 Northbound Ramps / Harley Knox Boulevard	Northbound Right Turn Lane
I-215 Northbound Ramps / Harley Knox Boulevard	Eastbound Left Turn Lane
I-215 Northbound Ramps / Harley Knox Boulevard	Eastbound Through Lane
I-215 Northbound Ramps / Harley Knox Boulevard	Westbound Right Turn Lane

Source: Urban Crossroads, Inc., Section 7.7.

As shown in Table 4.11-30, *Horizon Year (2016) I-215 Freeway Ramp Junction Merge/Diverge Analysis*, the following five I-215 Freeway ramp merge and diverge areas are expected to operate at unacceptable service levels for Horizon Year (2016) traffic conditions, without and with the Project. No new deficiencies would be created by the Project; thus, Project-related impacts would thus be less than significant.

I-215 Freeway Direction of Travel	Ramp Junction
I-215 Freeway Southbound	On-Ramp at Cactus Avenue
I-215 Freeway Southbound	Off-Ramp at Harley Knox Boulevard
I-215 Freeway Southbound	On-Ramp at Harley Knox Boulevard

I-215 Freeway Direction of Travel	Ramp Junction
I-215 Freeway Northbound	On-Ramp at Cactus Avenue
I-215 Freeway Northbound	Off-Ramp at Cactus Avenue

Source: Urban Crossroads, Inc., Section 7.9.

Threshold 3: ***Would the Project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?***

The proposed Project does not contain an air travel component; thus, air traffic volumes would not be changed as a result of the Project.

The Project site is located adjacent and east of the March Air Reserve Base and March Inland Port Airport ARB/IPA Riverside County Airport Land Use Commission (RCALUC) is the local airport land use commission for airports within Riverside County, and pursuant to the California State Aeronautics Act (Public Utility Code §21670 et seq.) is tasked with preparing and adopting an airport land use compatibility plan, and for reviewing proposed plans, regulations, and other actions of local agencies and airport operators for consistency with the plan.

As discussed in Subsection 4.8, Hazards and Hazardous Materials, and Subsection 4.9, Land Use, the Project site is located within the airport's Compatibility Zone II, which is identified as an area that is subject to airport-related noise, but is not an area that is prone to safety issues associated with airport operations. As such, the Project would not introduce a safety risk and would not cause a change in air traffic patterns. No impacts would occur.

Threshold 4: ***Would the Project substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?***

The proposed Project (described in Section 3.0, Project Description) is consistent with the property's land use designations as applied by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208), as well as the property's zoning designation. As such, there would be no transportation hazards created as a result of an incompatible land use. The Project proposes to construct and operate an industrial business center in an area of the City of Moreno Valley that is planned for industrial development and is adjacent to the City's designated truck route. To reduce inadvertent wrong turns, signs are proposed to be posted at the Project's exit driveways directing vehicles to the truck route.

The City of Moreno Valley Transportation Engineering Division has reviewed the Project's application materials (refer to Section 3.0, Project Description) and determined that no hazardous transportation design features would be introduced by the Project. A General Plan Amendment (PA11-0001) is proposed as part of the Project to modify the Circulation Element of the City of Moreno Valley General Plan. The proposed modifications to the Circulation Element would consist of changes to the planned alignment and classification of a segment of Krameria Road between Heacock Street and Indian Street. The intended purpose of this change is to provide a 90-degree intersection where Krameria Avenue meets Heacock Street and to provide a perpendicular

connection between Heacock Street and proposed Cosmos Street to allow for more safe and efficient local circulation system. The effect on transportation safety would be positive and no adverse safety impacts would occur.

Threshold 5: Would the Project result in inadequate emergency access?

Adequate emergency access would be provided to the Project site. Buildout of the proposed Project would result in new industrial business center on the Project site, which would increase the need for emergency access to and from the site. During the course of the City of Moreno Valley's required review of the proposed Project (refer to Section 3.0, Project Description), the Project's transportation design was reviewed by the City's Transportation Engineering Division to ensure that adequate access to and from the site would be provided for emergency vehicles. Furthermore, Conditions of Approval will be issued by the City of Moreno Valley prior to consideration of the proposed Project by City Council, and will require that the Project provide adequate paved access to and from the site and its buildings. With required adherence to City requirements for emergency vehicle access, impacts would be less than significant.

Threshold 6: Would the Project conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

The proposed Project is an industrial business park, which is a land use that is not likely to attract large volumes of pedestrian, bicycle, or transit traffic. (Field observations indicate nominal pedestrian and bicycle activity within the study area (Urban Crossroads 2011e 45)). Regardless, the Project is designed to comply with all applicable transportation policies.

The Project is designed to accommodate pedestrians via sidewalks provided along all adjacent roadways. Class III bikeways would be provided along Heacock Street and Iris Avenue in conformance with the General Plan's Bikeway Plan. Krameria Avenue and Cosmos Street are not identified as bikeways per the General Plan Bikeway Plan (as shown on Figure 4.11-11) and pursuant to the policies of the MVIAP, bikeways are not required and not proposed along the proposed Project's frontage with Krameria Avenue or Cosmos Street. Screen walls are designed to be installed along the Project's perimeter, which would separate the adjacent public roadway rights-of-way (and their associated streetscapes, sidewalks, and bikeways) from the proposed Project's interior, eliminating any conflict between Project operations and the sidewalks and bikeways of perimeter roadways. As required by the City, bike racks would be provided at each building. A transit turnout easement also is provided along the Project's frontage with Iris Avenue, in the event that RTA decides to implement a transit service route adjacent to the Project site. All Project driveways would be stop-signed controlled and sight distance at each Project driveway is required to be reviewed by the City of Moreno Valley at the time improvement plans are submitted to ensure that sign distance meets City standards. Off site, trucks accessing the Project are required to use approved truck routes, which would reduce conflicts associated with safety of the multi-model circulation system.

A detailed analysis of the proposed Project's consistency with applicable plans, policies, and programs is provided in Subsection 4.9, *Land Use and Planning*. As concluded in Subsection 4.9, the Project would not conflict with adopted plans, policies, or programs regarding public transit, bicycle, or pedestrian facilities.

4.11.5 CUMULATIVE IMPACT ANALYSIS

The analysis under Threshold 1 determined the Project's potential to affect the transportation network on a direct or cumulative basis. As concluded under Threshold 1, the addition of Project traffic to the existing and planned circulation network would make a cumulatively considerable contribution to:

Six (6) roadway segments in Opening Year (2016):

ID	Roadway Segment	Jurisdiction
3	Cactus Avenue from I-215 NB On-Ramp to I-215 NB Ramps	RivCo
4	Cactus Avenue east of I-215 Freeway (I-215 to Elsworth Street)	RivCo, MV
5	Cactus Avenue west of Frederick Street (Veterans Way to Frederick Street)	MV, MJPA
16	Iris Avenue west of Indian Street	MV
33	Harley Knox Boulevard west of Indian Street	Perris
40	Heacock Street from Gentian Avenue to Iris Avenue	MV, MJPA

Sixteen (16) roadway segments in Horizon Year (2016):

ID	Roadway Segment	Jurisdiction
2	Cactus Avenue between I-215 SB Ramps to I-215 NB On-Ramp	RivCo
3	Cactus Avenue between I-215 NB On-Ramp to I-215 NB Ramps	RivCo
4	Cactus Avenue east of I-215 Freeway (I-215 to Elsworth Street)	RivCo, MV
5	Cactus Avenue west of Frederick Street (Veterans Way to Frederick Street)	MV, MJPA
6	Cactus Avenue east of Frederick Street	MV, MJPA
7	Cactus Avenue west of Heacock Street	MV, MJPA
16	Iris Avenue west of Indian Street	MV
26	San Michele Road between Heacock Street and Indian Street	MV
32	Harley Knox Boulevard east of I-215 Freeway	Perris
33	Harley Knox Boulevard west of Indian Street	Perris
34	Harley Knox Boulevard east of Indian Street	Perris
40	Heacock Street between Gentian Avenue to Iris Avenue	MV, MJPA
46	Heacock Street north of San Michele Road	MV, MJPA
60	Indian Street between San Michele Road to Nandina Avenue	MV
61	Indian Street south of Nandina Avenue	MV
62	Indian Street north of Harley Knox Boulevard	Perris

Thirteen intersections in Horizon Year (2016):

ID	Intersection Location	Jurisdiction
1	I-215 Southbound Ramps / Cactus Avenue	Caltrans
2	I-215 Southbound Ramps / Harley Knox Boulevard	Caltrans
3	I-215 Northbound Ramps / Cactus Avenue	Caltrans
4	I-215 Northbound Ramps / Harley Knox Boulevard	Caltrans
5	Frederick Street / Cactus Avenue	MV, MJPA
6	Heacock Street / Cactus Avenue	MV, MJPA
8	Heacock Street / Gentian Avenue	MV, MJPA
9	Heacock Street / Iris Avenue	MV, MJPA
12	Heacock Street / Krameria Avenue (EW) – LOS "F" during the PM peak hour	MV, MJPA
14	Heacock Street / San Michele Road	MV, MJPA
31	Indian Street / San Michele Road	MV
32	Indian Street / Nandina Avenue	MV
33	Indian Street / Harley Knox Boulevard	Perris

One (1) roadway segment at General Plan Buildout:

ID	Roadway Segment	Jurisdiction
55	Indian Street north of Iris Avenue – LOS "E"	MV

The analysis under Threshold 2 determined the Project's potential to affect I-215 on a direct or cumulative basis. As concluded under Threshold 2, the addition of Project traffic to the existing and planned circulation network would make a cumulatively considerable contribution to four (4) freeway segments in Horizon Year (2016), until planned widening of I-215 is completed by RCTC:

I-215 Freeway Direction of Travel	Freeway Segment
I-215 Freeway Southbound	South of Cactus Avenue
I-215 Freeway Southbound	North of Harley Knox Boulevard
I-215 Freeway Southbound	South of Harley Knox Boulevard
I-215 Freeway Northbound	South of Cactus Avenue

The proposed Project has no potential to contribute to significant cumulative impacts under the topics discussed under Thresholds 3, 4, and 5 because the Project has no potential to change air traffic patterns, to create transportation design safety concerns, or to adversely affect emergency access.

Regarding Threshold 5, the Project would not conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities and thus has no potential to contribute to a cumulative impact. The Project incorporates bicycle racks, sidewalks, and a transit easement into its design to facilitate local and regional plans for a multi-model transportation network. The Project is an industrial business park, which is likely to attract passenger cars and trucks and only small volumes

of pedestrian, bicycle, or transit traffic. Potential conflicts between truck traffic and other modes of transportation would be reduced by the Project's design features. Screen walls are designed to be installed along the Project's perimeter and all Project driveways would reviewed for adequate sight distance before construction and be stop-sign controlled. Trucks would be directed to the approved truck route by signs posted at Project exit driveways. As such, the Project's contribution to any cumulative conflict between motor vehicle traffic and other modes of transportation would be less than significant.

4.11.6 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Improvements to the local roadway system are proposed by the Project, and will be enforced as part of the Conditions of Approval issued for the Project by the City of Moreno Valley, which will be issued by the City of Moreno Valley prior to consideration of the proposed Project by the City Council.

PR 4.11-1 The Project will construct roadway improvements (including but not limited to parkway, landscaping, and sidewalk improvements) along its frontage with Iris Avenue and Heacock Street as described in the City of Moreno Valley's Conditions of Approval for Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan PA11-0002, and individual Building Plot Plans PA11-0003, PA11-0004, PA11-0005, and PA11-0006.

PR 4.11-2 The Project will construct improvements to Cosmos Drive (including but not limited to parkway, landscaping, and sidewalk improvements) as described in the City of Moreno Valley's Conditions of Approval for Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan PA11-0002, and individual Building Plot Plans PA11-0003, PA11-0004, PA11-0005, and PA11-0006.

PR 4.11-3 The Project will construct improvements to Krameria Avenue (including but not limited to parkway, landscaping, and sidewalk improvements) as described in the City of Moreno Valley's Conditions of Approval for Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan PA11-0002, and individual Building Plot Plans PA11-0003, PA11-0004, PA11-0005, and PA11-0006.

PR 4.11-4 The Project will construct intersection improvements at each Project Driveway as described in the City of Moreno Valley's Conditions of Approval for Tentative Parcel Map No. 35879 (PA11-0007), Master Plot Plan PA11-0002, and individual Building Plot Plans PA11-0003, PA11-0004, PA11-0005, and PA11-0006.

PR 4.11-5 The Project shall comply with the City of Moreno Valley Development Impact Fee (DIF), which requires the payment of a fee to the City to reduce traffic congestion by installing intersection improvements. The following DIF-funded intersection improvements are applicable:

a. Frederick Street/Cactus Avenue (ID #5) (one eastbound through lane)

b. Heacock Street/Gentian Avenue (ID #8) (install traffic signal)

c. Heacock Street/Iris Avenue (ID #9) (install traffic signal, one northbound through lane, and one westbound right turn lane with overlap phasing)

d. Heacock Street/Krameria Avenue (ID #12) (install traffic signal, one southbound left turn lane, one westbound left turn lane, and one westbound right turn lane)

e. Heacock Street/San Michel Road (ID #31) (one southbound left turn lane and one westbound right turn lane with overlap phasing)

f. Indian Street/Nandina Avenue (ID #32) (one northbound through lane and one southbound through lane)

PR 4.11-6 The Project shall participate in funding of off-site transportation improvements through the payment of Transportation Uniform Mitigation Fees (TUMF). The following TUMF-funded intersection improvements are applicable:

a. I-215 Southbound Ramps/Cactus Avenue (ID #1) (one eastbound free right lane, one westbound left turn lane)

b. I-215 Southbound Ramps/Harley Knox Blvd. (ID #2) (two southbound left turn lanes, one westbound left turn lane)

c. I-215 Northbound Ramps/Cactus Avenue (ID #3) (one northbound right turn lane, one eastbound through turn lane, one westbound through lane, one westbound through lane, one westbound right turn lane)

d. I-215 Northbound Ramps/Harley Knox Blvd.(ID #4) (one northbound right turn lane, one eastbound left turn lane, one eastbound through lane, one westbound through lane, two westbound right turn lanes)

e. Frederick Street/Cactus Avenue (ID #5) (one westbound through lane and one eastbound through lane)

f. Heacock Street/Krameria Avenue (ID #12) (one northbound through lane)

g. Indian Street/Harley Knox Blvd. (ID #33) (one eastbound through lane)

PR 4.11-7 On-site direction signing and striping is required to be installed in conjunction with detailed construction plans for the Project and as approved by the City of Moreno Valley. The on-site signing and striping plans shall be subject to review and approval by the Planning Division, and shall clearly indicate the location of service area docks and public parking areas.

PR 4.11-8 All final grading, landscaping, and street improvement plans are required to provide sight distance standards in accordance with City of Moreno Valley and California Department of Transportation (Caltrans) standards.

PR 4.11-9 The minimum number of vehicle and bicycle parking spaces specified by the City of Moreno Valley Municipal Code is required to be provided.

PR 4.11-10 Space for a future transit stop will provided via an easement provided by the Project on the eastbound side of Iris Avenue as described in the City of Moreno Valley's Conditions of Approval for Tentative Parcel Map No. 35879 (PA11-0007).

PR 4.11-11 All construction hauling vehicles shall use the City-approved truck route. Alternative routes used by vehicles hauling construction equipment, materials, or earth must receive prior approval by the City of Moreno Valley.

4.11.7 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: Significant Direct and Cumulative Impact. The proposed Project would directly and cumulatively impact the existing and planned roadway network by contributing traffic to facilities that would operate at deficient levels of service.

Direct Impacts: The addition of Project traffic would directly impact the intersection of Heacock Street/Iris Avenue and the roadway segment of Heacock Street from Gentian Avenue to Iris Avenue (E+P). With required payment of City of Moreno Valley DIF fees and implementation of the DIF-funded improvement at this intersection (see PR 4.11-5), these impacts would be reduced, but not to below a level of significance. Additionally, the Project would directly impact the segment of Cactus Avenue between Veterans Way and Frederick Street (E+P), which would operate at a deficient LOS because this is the only segment of Cactus Avenue not improved to three (3) travel lanes in the westbound direction under existing conditions.

Cumulative Impacts: Project traffic would make a cumulatively considerable contribution to identified cumulative impacts at six (6) roadway segments in Opening Year 2016, at 16 roadway segments and 13 intersections in Horizon Year 2016, and at one (1) roadway segment in General Plan Buildout conditions. With required payment of City of Moreno Valley DIF fees (see PR 4.11-5) and TUMF fees (see PR 4.11-6) and implementation of the TUMF and DIF-funded improvements at the cumulatively impacted facilities, all cumulative impacts in Opening Year 2016 and Horizon Year 2016 would be reduced to below a level of significance with the exception of four (4) intersections and adjoining roadway segments that are not included in the TUMF and DIF programs (intersection of Heacock Street/Cactus Avenue (Project's traffic contribution is 6.4%); intersection of Indian Street/San Michele Road (Project's traffic contribution is 5.8%); intersection of Indian Street/Nandina Avenue (Project's traffic contribution is 7.5%); and intersection of Indian Street/Harley Knox Blvd (Project's traffic contribution is 5.4%)). Additionally, the roadway segment of Indian Street between Iris Avenue and Gentian Avenue is projected to operate at an unacceptable LOS in General Plan buildout conditions with or without the addition of Project traffic.

Threshold 2: Significant Cumulative Impact (Short-Term). The proposed Project would make a short-term cumulatively considerable contribution to impacts on four (4) I-215 freeway segments until such time as the planned widening of I-215 is complete.

Threshold 3: No Impact. There is no potential for the Project to change air traffic levels or create substantial air traffic safety risks.

Threshold 4: No Impact. No transportation safety hazards would be introduced as a result of the proposed Project's design.

Threshold 5: No Impact. Adequate emergency access would be provided to the Project site.

Threshold 6: Less than Significant Impact. The proposed Project is consistent with adopted policies and programs regarding public transit, bicycle, and pedestrian facilities. The Project is designed to reduce all potential transportation mode conflicts. Potential impacts to the performance or safety of transit, bicycle, and pedestrian systems would be less than significant.

4.11.8 MITIGATION

MM 4.11-1 Prior to issuance of the Project's first occupancy permit, a traffic signal (programmed under the City of Moreno Valley DIF) shall be installed at the intersection of Heacock Street/Gentian Avenue.

MM 4.11-2 Prior to issuance of the first occupancy permit, the following improvements shall be in place at the intersection of Heacock Street/Iris Avenue:

a. Traffic signal
b. Northbound: two through lanes
c. Northbound: one right turn lane

MM 4.11-3 In the event that the City of Moreno Valley and/or the City of Perris establish a fair-share funding program(s) for improvements to any of the following intersections or immediately adjacent roadway segments that contribute to the intersection's level of service, then prior to the issuance of building permits, the Project shall contribute a fair-share payment to the City-established funding program(s) to address the Project's cumulative impacts to the following facilities:

a. Intersection of Heacock Street/Cactus Avenue (Project's fair-share contribution is 6.4%);
b. Intersection of Indian Street/San Michele Road (Project's fair-share contribution is 5.8%);
c. Intersection of Indian Street/Nandina Avenue (Project's fair-share contribution is 7.5%);
d. Intersection of Indian Street/Harley Knox Blvd (Project's fair-share contribution is 5.4%);

MM 4.11-4 In the event that the City of Moreno Valley establishes a fair-share funding program for improvements to Indian Street between Iris Avenue and Gentian Avenue prior to the issuance of building permits, the Project shall contribute a fair-share payment to the City-established funding program to address the Project's cumulative impacts at General Plan buildout.

4.11.9 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Threshold 1: Significant Unavoidable Direct and Cumulative Impact. With required payment of City of Moreno Valley DIF fees (see PR 4.11-5) and TUMF fees (see PR 4.11-6) and implementation of Mitigation Measures MM 4.11-1 and MM 4.11-2, the Project's direct impacts to the intersections of

Heacock Street/Iris Avenue and Heacock Street/Gentian Avenue, and the roadway segment of Heacock Street from Gentian Avenue to Iris Avenue, would be reduced to below a level of significance. Improvements to the roadway segment of Cactus Avenue west of Frederick Street (E+P) are already planned for improvement as part of Plot Plan PA08-0072 to provide three (3) travel lanes in the westbound direction. Although this improvement will be in place before occupancy permits are issued for the proposed Project, it was not in place at the time the Project's Notice of Preparation was distributed for public review; accordingly, Project impacts to this roadway segment are evaluated as significant and unavoidable for the E+P scenario. Mitigation for this impact is not identified because the improvements already are assured and would be in place prior to the Project's Opening Year 2016. With construction of the improvements that will occur in association with Plot Plan PA 08-0072 (anticipated to be under construction in 2012) impacts to this road segment would be reduced to less than significant levels.

With required payment of City of Moreno Valley DIF fees (see PR 4.11-5) and TUMF fees (see PR 4.11-6) many of the Project's cumulative impacts would be reduced to below a level of significance, with the exception of impacts at four (4) intersections (Heacock Street/Cactus Avenue, Indian Street/San Michele Road, Indian Street/Nandina Avenue, and Indian Street/Harley Knox Blvd.) and their adjoining roadway segments that are not covered by either the TUMF or DIF programs. However, there is no assurance that improvements to the intersections and roadway segments that are funded by TUMF or DIF would be in place prior to the Project's Opening Year 2016 or Horizon Year 2016; accordingly, the proposed Project is evaluated as having a significant and unavoidable near-term impact to these TUMF/DIF-funded intersections and roadway segments until such time that the improvements are constructed. For the four (4) intersections that are not funded by either TUMF or DIF, Mitigation Measure MM 4.11-3 and MM 4.11-4 require the Project to participate in a funding program(s) to address the Project's fair share towards cumulative impacts, if such funding program(s) is established prior to the issuance of building permits. However, because there is no assurance that the City of Moreno Valley and/or the City of Perris would identify a funding program(s) for these intersections and roadway segment prior to the issuance of building permits, and because there is no assurance that these improvements would be in place prior to the Project's Opening Year 2016 or Horizon Year 2016, the Project's cumulative impact to these four (4) intersections and one (1) roadway segment are concluded to be significant and unavoidable.

Threshold 2: Significant Unavoidable Cumulative Impact (Short-Term). The proposed Project would make a short-term cumulatively considerable contribution to impacts on four (4) I-215 freeway segments until such time as the planned widening of I-215 is complete. I-215 is under the jurisdiction of Caltrans and is outside of the authority of the City of Moreno Valley; there is no feasible mitigation available to reduce or avoid the Project's contribution of traffic to I-215.

Table 4.11-1 Roadway Segment Analysis Locations

ID	ROADWAY SEGMENTS	JURISDICTION*
1	Cactus Avenue west of I-215 Freeway	RivCo
2	Cactus Avenue between I-215 SB Ramps to I-215 NB On-Ramp	RivCo
3	Cactus Avenue between I-215 NB On-Ramp to I-215 NB Ramps	RivCo
4	Cactus Avenue east of I-215 Freeway (I-215 to Elsworth Street)	RivCo, MV
5	Cactus Avenue west of Frederick Street (Veterans Way to Frederick Street)	MV, MJPA
6	Cactus Avenue east of Frederick Street	MV, MJPA
7	Cactus Avenue west of Heacock Street	MV, MJPA
8	Cactus Avenue east of Heacock Street	MV
9	Meyer Drive west of Heacock Street	MJPA
10	John F. Kennedy Drive east of Heacock Street	MV
11	Gentian Avenue east of Heacock Street	MV
12	Iris Avenue between Heacock Street and Driveway 4	MV
13	Iris Avenue between Driveway 4 and Driveway 6	MV
14	Iris Avenue between Driveway 6 and Driveway 9/Concord Way	MV
15	Iris Avenue east of Driveway 9/Concord Way	MV
16	Iris Avenue west of Indian Street	MV
17	Iris Avenue east of Indian Street	MV
18	*Krameria Avenue (EW) between Heacock Street and Driveway 5*	*MV*
19	*Krameria Avenue (EW) between Driveway 5 and Driveway 7*	*MV*
20	*Krameria Avenue (EW) between Driveway 7 and Driveway 8*	*MV*
21	*Krameria Avenue (EW) between Driveway 8 and Driveway 10*	*MV*
22	*Krameria Avenue (EW) between Driveway 10 and Cosmos Street/Krameria Avenue (NS)*	*MV*
23	Krameria Avenue east of Krameria Avenue (NS)	MV
24	Krameria Avenue west of Indian Street	MV
25	Krameria Avenue east of Indian Street	MV
26	San Michele Road between Heacock Street and Indian Street	MV
27	San Michele Road east of Indian Street	MV
28	Nandina Avenue between Heacock Street and Indian Street	MV
29	Nandina Avenue east of Indian Street	MV
30	Harley Knox Boulevard west of I-215 Freeway	RivCo
31	Harley Knox Boulevard between I-215 SB Ramps and I-215 NB Ramps	RivCo, Perris
32	Harley Knox Boulevard east of I-215 Freeway	Perris
33	Harley Knox Boulevard west of Indian Street	Perris
34	Harley Knox Boulevard east of Indian Street	Perris
35	Old Frontage Road north of Cactus Avenue	MV

ID	ROADWAY SEGMENTS	JURISDICTION*
36	Frederick Street north of Cactus Avenue	MV
37	Heacock Street north of Cactus Avenue	MV
38	Heacock Street between Cactus Avenue and John F. Kennedy Drive	MV, MJPA
39	Heacock Street between John F. Kennedy Drive and Gentian Avenue	MV, MJPA
40	Heacock Street between Gentian Avenue to Iris Avenue	MV, MJPA
41	Heacock Street between Iris Avenue and Driveway 1	MV, MJPA
42	Heacock Street between Driveway 1 and Driveway 2	MV, MJPA
43	Heacock Street between Driveway 2 and Krameria Avenue (EW)	MV, MJPA
44	Heacock Street between Krameria Avenue (EW) and Driveway 3	MV, MJPA
45	Heacock Street south of Driveway 3	MV, MJPA
46	Heacock Street north of San Michele Road	MV, MJPA
47	Heacock Street between San Michele Road and Nandina Avenue	MV, MJPA
48	Heacock Street south of Nandina Avenue	MV, MJPA
49	Concord Way north of Iris Avenue	MV
50	*Cosmos Street between Driveway 11 and Driveway 12*	*MV*
51	*Cosmos Street between Driveway 12 and Driveway 13*	*MV*
52	*Cosmos Street between Driveway 13 and Krameria Avenue (EW)*	*MV*
53	*Krameria Avenue (NS) between Krameria Avenue (EW) and Driveway 14*	*MV*
54	*Krameria Avenue (NS) between Driveway 14 and Driveway 15/Krameria Avenue*	*MV*
55	Indian Street north of Iris Avenue	MV
56	Indian Street south of Iris Avenue	MV
57	Indian Street north of Krameria Avenue	MV
58	Indian Street south of Krameria Avenue	MV
59	Indian Street north of San Michele Road	MV
60	Indian Street between San Michele Road to Nandina Avenue	MV
61	Indian Street south of Nandina Avenue	MV
62	Indian Street north of Harley Knox Boulevard	Perris
63	Indian Street south of Harley Knox Boulevard	Perris

*MV = City of Moreno Valley; MJPA = March Joint Powers Authority; Perris = City of Perris; RivCo = County of Riverside
Source: Urban Crossroads, Inc., 2011e, Table 1-2.

Table 4.11-2 Intersection Analysis Locations

ID	ROADWAY SEGMENTS	JURISDICTION*
1	I-215 Southbound Ramps / Cactus Avenue	Caltrans
2	I-215 Southbound Ramps / Harley Knox Boulevard	Caltrans
3	I-215 Northbound Ramps / Cactus Avenue	Caltrans
4	I-215 Northbound Ramps / Harley Knox Boulevard	Caltrans
5	Frederick Street / Cactus Avenue	MV, MJPA
6	Heacock Street / Cactus Avenue	MV, MJPA
7	Heacock Street / John F. Kennedy Drive	MV, MJPA
8	Heacock Street / Gentian Avenue	MV, MJPA
9	Heacock Street / Iris Avenue	MV, MJPA
10	*Heacock Street / Driveway 1*	*MV, MJPA*
11	*Heacock Street / Driveway 2*	*MV, MJPA*
12	*Heacock Street / Krameria Avenue (EW)*	*MV, MJPA*
13	*Heacock Street / Driveway 3*	*MV, MJPA*
14	Heacock Street / San Michele Road	MV, MJPA
15	Heacock Street / Nandina Avenue	MV, MJPA
16	*Driveway 4 / Iris Avenue*	*MV*
17	*Driveway 5 / Krameria Avenue (EW)*	*MV*
18	*Driveway 6 / Iris Avenue*	*MV*
19	*Driveway 7 / Krameria Avenue (EW)*	*MV*
20	*Driveway 8 / Krameria Avenue (EW)*	*MV*
21	*Driveway 9*/Concord Way / Iris Avenue	MV
22	*Driveway 10 / Krameria Avenue (EW)*	*MV*
23	*Cosmos Street / Driveway 11*	*MV*
24	*Cosmos Street / Driveway 12*	*MV*
25	*Cosmos Street / Driveway 13*	*MV*
26	*Cosmos Street / Krameria Avenue (EW)*	*MV*
27	*Krameria Avenue (NS) / Driveway 14*	*MV*
28	*Krameria Avenue (NS) / Driveway 15/Krameria Avenue*	*MV*
29	Indian Street / Iris Avenue	MV
30	Indian Street / Krameria Avenue	MV
31	Indian Street / San Michele Road	MV
32	Indian Street / Nandina Avenue	MV
33	Indian Street / Harley Knox Boulevard	Perris

*Caltrans = California Department of Transportation; MV = City of Moreno Valley; MJPA = March Joint Powers Authority
Perris = City of Perris

Source: Urban Crossroads, Inc., 2011e, Table 1-1.

Table 4.11-3 Freeway Mainline Segment Analysis Locations

ID	FREEWAY MAINLINE SEGMENTS	JURISDICTION
1	I-215 Freeway – Southbound, north of Cactus Avenue	Caltrans
2	I-215 Freeway – Southbound, south of Cactus Avenue	Caltrans
3	I-215 Freeway – Southbound, north of Harley Knox Boulevard	Caltrans
4	I-215 Freeway – Southbound, south of Harley Knox Boulevard	Caltrans
5	I-215 Freeway – Northbound, north of Cactus Avenue	Caltrans
6	I-215 Freeway – Northbound, south of Cactus Avenue	Caltrans
7	I-215 Freeway – Northbound, north of Harley Knox Boulevard	Caltrans
8	I-215 Freeway – Northbound, south of Harley Knox Boulevard	Caltrans

Source: Urban Crossroads, Inc., 2011e, Table 1-3.

Table 4.11-4 Freeway Merge/Diverge Ramp Junction Analysis Locations

ID	FREEWAY MERGE/DIVERGE RAMP JUNCTIONS
1	I-215 Freeway – Southbound, Off-Ramp at Cactus Avenue (Diverge)
2	I-215 Freeway – Southbound, Loop Off-Ramp at Cactus Avenue (Diverge)
3	I-215 Freeway – Southbound, On-Ramp at Cactus Avenue (Merge)
4	I-215 Freeway – Southbound, Off-Ramp at Harley Knox Boulevard (Diverge)
5	I-215 Freeway – Southbound, On-Ramp at Harley Knox Boulevard (Merge)
6	I-215 Freeway – Northbound, On-Ramp at Cactus Avenue (Merge)
7	I-215 Freeway – Northbound, Loop On-Ramp at Cactus Avenue (Merge)
8	I-215 Freeway – Northbound, Off-Ramp at Cactus Avenue (Diverge)
9	I-215 Freeway – Northbound, On-Ramp at Harley Knox Boulevard (Merge)
10	I-215 Freeway – Northbound, Off-Ramp at Harley Knox Boulevard (Diverge)

Source: Urban Crossroads, Inc., 2011e, Table 1-4.

Table 4.11-5 Existing (2011) Conditions Roadway Volume/Capacity (V/C) Analysis[1]

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
1	Cactus Avenue	West of I-215 Freeway	37,500	6,600	0.18	A	D
2		I-215 SB Ramps to I-215 NB On-Ramp	25,000	13,100	0.52	A	D
3		I-215 NB On-Ramp to I-215 NB Ramps/Frontage Road	37,500	30,400	0.81	D	D
4		I-215 to Elsworth Street	37,500	30,100	0.80	C	D
5		Veterans Way to Frederick Street	37,500	32,300	0.86	D	D
6		East of Frederick Street	46,900	35,600	0.76	C	D
7		West of Heacock Street	46,900	27,500	0.59	A	D
8		East of Heacock Street	37,500	17,900	0.48	A	C
9	Meyer Drive	West of Heacock Street	37,500	6,400	0.17	A	C
10	John F. Kennedy Drive	East of Heacock Street	37,500	9,200	0.25	A	C
11	Gentian Avenue	East of Heacock Street	12,500	1,800	0.14	A	D
12	Iris Avenue	Heacock Street to Concord Way	12,500	10,400	0.83	D	D
15		East of Driveway 9/Concord Way	12,500	10,300	0.82	D	D
16		West of Indian Street	12,500	10,800	0.86	D	D
17		East of Indian Street	25,000	13,300	0.53	A	D
25	Krameria Avenue	East of Indian Street	12,500	1,900	0.15	A	C
26	San Michele Road	Heacock Street to Indian Street	12,500	1,500	0.12	A	D
27		East of Indian Street	25,000	2,900	0.12	A	D
28	Nandina Avenue	Heacock Street to Indian Street	12,500	1,200	0.10	A	D
29		East of Indian Street	12,500	1,600	0.13	A	D
30	Harley Knox Boulevard	West of I-215 Freeway	37,500	7,200	0.19	A	D
31		I-215 SB Ramps to I-215 NB Ramps	37,500	9,500	0.25	A	D
32		East of I-215 Freeway	25,000	12,400	0.50	A	D
33		West of Indian Street	12,500	9,600	0.77	C	D
34		East of Indian Street	12,500	5,200	0.42	A	D
35	Frontage Road	North of Cactus Avenue	12,500	2,300	0.18	A	D
36	Frederick Street	North of Cactus Avenue	37,500	7,900	0.21	A	D
37	Heacock Street	North of Cactus Avenue	37,500	12,200	0.33	A	D
38		Cactus Avenue to John F. Kennedy Drive	37,500	19,600	0.52	A	D
39		John F. Kennedy Drive to Gentian Avenue	37,500	15,100	0.40	A	D
40		Gentian Avenue to Iris Ave	12,500	***12,700***	***1.02***	***F***	D

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
41		South of Iris Avenue	12,500	2,300	0.18	A	D
46		North of San Michele Road	12,500	2,800	0.22	A	D
47		San Michele Road to Nandina Avenue	12,500	1,400	0.11	A	D
48		South of Nandina Avenue	12,500	300	0.02	A	D
49	Concord Way	North of Iris Avenue	12,500	100	0.01	A	C
55		North of Iris Avenue	12,500	8,100	0.65	B	D
56		South of Iris Avenue	12,500	7,000	0.56	A	D
57		North of Krameria Avenue	12,500	3,600	0.29	A	D
58		South of Krameria Avenue	12,500	1,900	0.15	A	D
59		North of San Michele Road	25,000	100	0.00	A	D
60	Indian Street	San Michele Road to Nandina Avenue	12,500	3,100	0.25	A	D
61		South of Nandina Avenue	12,500	4,800	0.38	A	D
62		North of Harley Knox Boulevard	12,500	6,000	0.48	A	D
63		South of Harley Knox Boulevard	12,500	1,200	0.10	A	D

1: Per Figure 9-2: City of Moreno Valley Level of Service (LOS) Standards, City of Moreno Valley General Plan Circulation Element.
2: These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic), and pedestrian and bicycle traffic.
3: ***Bold and italics*** indicate unacceptable LOS.
Source: Urban Crossroads, Inc., 2011e, Table 3-2.

Table 4.11-6 Intersection Analysis for Existing (2011) Conditions

ID	INTERSECTION	TRAFFIC CONTROL[2]	DELAY[1] (SECONDS)		LOS[4]	
			AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Avenue	TS	14.2	23.4	B	C
2	I-215 SB Ramps / Harley Knox Boulevard	TS	26.6	27.6	C	C
3	I-215 NB Ramps / Cactus Avenue	TS	12.9	4.8	B	A
4	I-215 NB Ramps / Harley Knox Boulevard	TS	18.1	18.1	B	B
5	Frederick Street / Cactus Avenue	TS	18.3	16.5	B	B
6	Heacock Street / Cactus Avenue	TS	40.8	32.3	D	C
7	Heacock Street / John F. Kennedy Drive	TS	30.8	34.6	C	C
8	Heacock Street / Gentian Avenue	CSS	21.8	27.8	C	D
9	Heacock Street / Iris Avenue	AWS	21.1	***42.3***	C	***F***[3]
14	Heacock Street / San Michele Road	TS	30.4	30.8	C	C
15	Heacock Street / Nandina Avenue	CSS	8.6	8.4	A	A
21	Concord Way / Iris Avenue	CSS	15.6	9.8	C	A
29	Indian Street / Iris Avenue	TS	51.5	39.3	D	D
30	Indian Street / Krameria Avenue	CSS	9.3	11.3	A	B
31	Indian Street / San Michele Road	TS	28.1	20.0	C	B
32	Indian Street / Nandina Avenue	TS	30.9	27.6	C	C
33	Indian Street / Harley Knox Boulevard	AWS	12.7	11.7	B	B

1: Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
2: CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal.
3: Volume-to-capacity ratio is greater than 1.00; Intersection unstable; Level of Service "F."
4: ***Bold and italics*** indicate unacceptable LOS.
Source: Urban Crossroads, Inc., 2011e, Table 3-1.

Table 4.11-7 Existing Conditions (2011) Conditions Stacking Length Summary at I-215 / Cactus Avenue and I-215 / Harley Knox Boulevard

FREEWAY RAMP INTERSECTION LOCATION / MOVEMENT	STACKING DISTANCE (FEET)	95TH PERCENTILE STACKING DISTANCE REQUIRED (FEET)		ACCEPTABLE?[1]	
		AM	PM	AM	PM
I-215 SB Ramps / Cactus Avenue:					
Southbound Right Turn Lane	1,115	19	0	Yes	Yes
Eastbound Through Lane	675	65	109	Yes	Yes
Eastbound Right Turn Lane	675	22	38	Yes	Yes
Westbound Left Turn Lane	1,022	426	659[2]	Yes	Yes
Westbound Through Lane	1,182	43	7	Yes	Yes
I-215 NB Ramps / Cactus Avenue:					
Northbound Left Turn Lane	145	145	30	Yes	Yes
Northbound Through Lane	1,650	64	21	Yes	Yes
Southbound Left Turn Lane	115	13	42	Yes	Yes
Southbound Right Turn Lane	560	19	21	Yes	Yes
Eastbound Left Turn Lane	190	16	11	Yes	Yes
Eastbound Through Lane	1,182	104	87	Yes	Yes
Westbound Through Lane	1,120	451[2]	220	Yes	Yes
I-215 SB Ramps / Harley Knox Boulevard:					
Southbound Through Lane	1,109	291[2]	294[2]	Yes	Yes
Southbound Right Turn Lane	265	34	53	Yes	Yes
Eastbound Through Lane	836	84	63	Yes	Yes
Eastbound Right Turn Lane	836	18	8	Yes	Yes
Westbound Left Turn Lane	95	***118***[2]	***100***	***No***	***No***
Westbound Through Lane	280	30	19	Yes	Yes
I-215 NB Ramps / Harley Knox Boulevard					
Northbound Through Lane	929	51	15	Yes	Yes
Northbound Right Turn Lane	215	44	41	Yes	Yes
Eastbound Left Turn Lane	75	***154***	***155***	***No***	***No***
Eastbound Through Lane	280	87	81	Yes	Yes
Westbound Through Lane	594	87	74	Yes	Yes
Westbound Right Turn Lane	594	45	48	Yes	Yes

1: Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable. ***Bold and italics*** indicate unacceptable stacking distance.
2: 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
Source: Urban Crossroads, Inc., 2011e, Table 3-3.

Table 4.11-8 Existing (2011) I-215 Freeway Ramp Junction Merge/Diverge Analysis

I-215 RAMP	LANES ON FREEWAY	AM PEAK HOUR		PM PEAK HOUR	
		DENSITY[2]	LOS	DENSITY[2]	LOS
Southbound:					
Off-Ramp at Cactus Avenue	4	15.5	B	22.2	C
Loop Off-Ramp at Cactus Avenue - Upstream	4	16.8	B	24.6	C
Loop Off-Ramp at Cactus Avenue - Downstream	4	16.8	B	24.6	C
On-Ramp at Cactus Avenue	3	19.1	B	29.5	D
Off-Ramp at Harley Knox Boulevard	3	22.2	C	29.5	D
On-Ramp at Harley Knox Boulevard	3	18.1	B	23.7	C
Northbound:					
On-Ramp at Cactus Avenue	3	29.1	D	28.0	C
Loop On-Ramp at Cactus Avenue - Downstream	3	24.6	C	21.6	C
Loop On-Ramp at Cactus Avenue - Upstream	3	24.6	C	21.6	C
Off-Ramp at Cactus Avenue	3	32.5	D	26.4	C
On-Ramp at Harley Knox Boulevard.	2	21.8	C	18.4	B
Off-Ramp at Harley Knox Boulevard	2	22.2	C	17.6	B

1: Merge/Diverge analysis has been conducted twice where nearby ramps exist both upstream and downstream.
2: Density is measured by passenger cars per mile per lane (pc/mi/ln).
Source: Urban Crossroads, Inc., 2011e, Table 3-6.

Table 4.11-9 Existing (2011) Conditions for I-215 Directional Peak Hour Volumes

EXISTING (2011) DIRECTION PEAK HOUR TOTAL VOLUME[1]									
I-215 FREEWAY MAINLINE SEGMENT	2-WAY			DIRECTIONAL SPLIT				AM	PM
	ADT	AM%	PM%	AM %	PM %	KD% AM[2]	KD% PM[2]		
Southbound:									
N of Cactus	130,800	6.17%	7.23%	42%	54%	2.58%	3.93%	3,381	5,144
S of Cactus	128,000	6.58%	7.22%	39%	57%	2.58%	4.10%	3,299	5,245
N of Harley Knox	111,800	5.64%	6.21%	47%	62%	2.63%	3.82%	2,939	4,274
S of Harley Knox	102,700	5.72%	6.06%	46%	62%	2.65%	3.76%	2,717	3,857
Northbound:									
N of Cactus	130,800	6.17%	7.23%	58%	46%	3.59%	3.30%	4,691	4,310
S of Cactus	128,000	6.58%	7.22%	61%	43%	4.00%	3.12%	5,124	3,992
N of Harley Knox	111,800	5.64%	6.21%	53%	38%	3.01%	2.39%	3,366	2,673
S of Harley Knox	102,700	5.72%	6.06%	54%	38%	3.07%	2.30%	3,158	2,367

Existing (2011) Directional Peak Hour Volumes by Vehicle Type								
I-215 Freeway Mainline Segment	AM Peak Hour				PM Peak Hour			
	TOTAL ADT	Truck %	Cars	Trucks	TOTAL ADT	Truck %	Cars	Trucks
Southbound:								
N of Cactus	3,381	5.41%	3,198	183	5,144	2.97%	4,991	153
S of Cactus	3,299	4.52%	3,150	149	5,245	2.71%	5,103	142
N of Harley Knox	2,939	4.49%	2,807	132	4,274	3.95%	4,105	169
S of Harley Knox	2,717	4.56%	2,593	124	3,857	3.91%	3,706	151
Northbound:								
N of Cactus	4,691	1.81%	4,606	85	4,310	2.18%	4,216	94
S of Cactus	5,124	2.26%	5,008	116	3,992	2.66%	3,886	106
N of Harley Knox	3,366	3.98%	3,232	134	2,673	3.44%	2,581	92
S of Harley Knox	3,158	4.40%	3,019	139	2,367	3.59%	2,282	85

1: 2011 peak hour directional volumes from the Caltrans Performance Measurement System (PeMS) website.
2: KD% AM = 2-Way AM% x Directional Split AM%; KD% PM = 2-Way PM% x Directional Split PM%
K is the percentage of the ADT in both directions during the peak hour and D is the percentage of traffic in the peak direction during the peak hour. The KD factor is the product of K and D (K x D) and represents the percentage of ADT in the peak direction during the peak hour.
Source: Urban Crossroads, Inc., 2011e, Table 3-4.

Table 4.11-10 Existing (2011) Conditions Basic Freeway Segment Analysis

I-215 FREEWAY MAINLINE SEGMENT	TOTAL ADT		LANES[1]	DENSITY[2]		LOS	
	AM	PM		AM	PM	AM	PM
Southbound:							
N of Cactus	3,381	5,144	4	14.5	21.8	B	C
S of Cactus	3,299	5,245	3	18.8	30.9	C	D
N of Harley Knox	2,939	4,274	3	16.7	24.3	B	C
S of Harley Knox	2,717	3,857	3	15.5	21.9	B	C
Northbound:							
N of Cactus	4,691	4,310	4	19.8	18.2	C	C
S of Cactus	5,124	3,992	3	29.7	22.6	D	C
N of Harley Knox	3,366	2,673	3	19.1	15.1	C	B
S of Harley Knox	3,158	2,367	3	18.0	13.5	B	B

1: Number of lanes in the specified direction; based on existing conditions.
2: Density is measured by passenger cars per mile per lane (pc/mi/ln).
Source: Urban Crossroads, Inc., 2011e, Table 3-5.

Table 4.11-11 Roadway Segment Capacity LOS Thresholds[1]

Facility Type	Level of Service (LOS) Capacity (ADT)*				
	A	B	C	D	E
Six Lane Divided Arterial	33,900	39,400	45,000	50,600	56,300
Four Lane Divided Arterial	22,500	26,300	30,000	33,800	37,500
Four Lane Undivided Arterial	15,000	17,500	20,000	22,500	25,000
Two Lane Industrial Collector	7,500	8,800	10,000	11,300	12,500
Two Lane Undivided Residential	N/A	N/A	N/A	N/A	2,000

1: These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective roadway classifications. Capacity is affected by such factors as intersections (spacing, configuration, and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic), and pedestrian and bicycle traffic.
*ADT = Average Daily Traffic volume
Source: Urban Crossroads, Inc., 2011e, Table 2-3.

Table 4.11-12 Signalized Intersection LOS Thresholds

LOS	DESCRIPTION	AVERAGE CONTROL DELAY (SECONDS)
A	Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high volume to capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	80.01 and up

Source: HCM 2000, Chapter 16.

Table 4.11-13 Unsignalized Intersection LOS Thresholds

LOS	DESCRIPTION	AVERAGE CONTROL PER VEHICLE (SECONDS)
A	Little or no delays.	0 to 10.00
B	Short traffic delays.	10.01 to 15.00
C	Average traffic delays.	15.01 to 25.00
D	Long traffic delays.	25.01 to 35.00
E	Very long traffic delays.	35.01 to 50.00
F	Extreme traffic delays with intersection capacity exceeded.	> 50.00

Source: HCM 2000, Chapter 17.

Table 4.11-14 Freeway Mainline LOS Thresholds

LOS	DESCRIPTION	DENSITY RANGE (PC/MI/LN)*
A	Free-flow operations in which vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed.	0.0 – 11.0
B	Relative free-flow operations in which vehicle maneuvers within the traffic stream are slightly restricted. Effects of minor incidents are easily absorbed.	11.1 – 18.0
C	Travel is still at relative free-flow speeds, but freedom to maneuver within the traffic stream is noticeably restricted. Minor incidents may be absorbed, but local deterioration in service will be substantial. Queues begin to form behind significant blockages.	18.1 – 26.0
D	Speeds begin to decline slightly and flows and densities begin to increase more quickly. Freedom to maneuver is noticeably limited. Minor incidents can be expected to create queuing as the traffic stream has little space to absorb disruptions.	26.1 – 35.0
E	Operation at capacity. Vehicles are closely spaced with little room to maneuver. Any disruption in the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. Any incident can be expected to produce a serious disruption in traffic flow and extensive queuing.	35.1 – 45.0
F	Breakdown in vehicle flow. Arrival flow exceeds discharge flow.	>45.0

*pc/mi/ln = passenger cars per mile per lane.
Source: HCM 2000, Chapter 23.

Table 4.11-15 Merge and Diverge LOS Thresholds

LEVEL OF SERVICE	DENSITY RANGE (PC/MI/LN)*
A	0.0 – 11.0
B	11.1 – 18.0
C	18.1 – 26.0
D	26.1 – 35.0
E	35.1 – 45.0
F	>45.0

*pc/mi/ln = passenger cars per mile per lane.
Source: HCM 2000, Chapter 25.

Table 4.11-16 Project Trip Generation Summary

LAND USE	AM PEAK HOUR TRIPS[3]			PM PEAK HOUR TRIPS[3]			DAILY TRIPS
	IN	OUT	TOTAL	IN	OUT	TOTAL	
Parcel 1 (High-Cube Warehouse, 1,103,003 square feet)							
Passenger Cars	30	15	46	15	36	51	731
Truck Trips (PCE)[1]	92	46	138	46	107	153	2,207
2-axle:	*6*	*3*	*9*	*3*	*7*	*10*	*145*
3-axle:	*18*	*9*	*28*	*9*	*21*	*31*	*442*
4-axle:	*68*	*34*	*101*	*34*	*79*	*113*	*1,620*
Parcel 2 (High-Cube Warehouse, 277,243 square feet)							
Passenger Cars	8	4	11	4	9	13	184
Truck Trips (PCE)[1]	23	12	35	12	27	39	555
2-axle:	*2*	*1*	*2*	*1*	*2*	*3*	*37*
3-axle:	*5*	*2*	*7*	*2*	*5*	*8*	*111*
4-axle:	*17*	*8*	*25*	*8*	*20*	*28*	*407*
Parcel 3 (Warehousing, 87,429 square feet)							
Passenger Cars	10	2	12	3	10	13	143
Truck Trips (PCE)[1]	29	7	36	10	29	39	432
2-axle:	*2*	*0*	*2*	*1*	*2*	*3*	*28*
3-axle:	*6*	*1*	*7*	*2*	*6*	*8*	*87*
4-axle:	*21*	*5*	*27*	*7*	*21*	*29*	*317*
Parcel 4 (General Light Industrial, 16,732 square feet)							
Passenger Cars	11	1	12	2	11	13	94
Truck Trips (PCE)[1]	6	1	7	1	7	8	55
2-axle:	*1*	*0*	*1*	*0*	*1*	*1*	*9*
3-axle:	*1*	*0*	*1*	*0*	*1*	*1*	*10*
4-axle:	*4*	*1*	*5*	*1*	*4*	*5*	*35*
Total Passenger Cars:	59	23	82	24	66	89	1,151
Total Truck Trips (PCE):	151	66	216	68	170	238	3,249
PROJECT TOTAL (PCE)[2]:	209	89	298	92	236	328	4,400

1: Based on the following Passenger Car Equivalent Factors: 2-axle = 1.5 PCE, 3-axle = 2.0 PCE, 4+-axle = 3.0 PCE.
2: TOTAL TRIPS (PCE) = Passenger Cars + Truck Trips (PCE).
3: AM and PM peak hour trips are rounded to the nearest whole number; therefore, total trips may be 1 value higher or lower than the AM and PM trips shown when totaled.
Source: Urban Crossroads, Inc., 2011e, Table 4-2.

Table 4.11-17 Existing Plus Project (E+P) Conditions Roadway Volume/Capacity (V/C) Analysis[1]

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
1	Cactus Avenue	West of I-215 Freeway	37,500	6,600	0.18	A	D
2		I-215 SB Ramps to I-215 NB On-Ramp	25,000	13,900	0.56	A	D
3		I-215 NB On-Ramp to I-215 NB Ramps/Frontage Road	37,500	32,000	0.85	D	D
4		I-215 to Elsworth Street	37,500	31,700	0.85	D	D
5		Veterans Way to Frederick Street	37,500	***34,000***	***0.91***	***E***	D
6		East of Frederick Street	46,900	37,300	0.80	C	D
7		West of Heacock Street	46,900	29,200	0.62	B	D
8		East of Heacock Street	37,500	17,900	0.48	A	C
9	Meyer Drive	West of Heacock Street	37,500	6,400	0.17	A	C
10	John F. Kennedy Drive	East of Heacock Street	37,500	9,200	0.25	A	C
11	Gentian Avenue	East of Heacock Street	12,500	1,800	0.14	A	D
12	Iris Avenue	Heacock Street to Driveway 4	25,000	10,700	0.43	A	D
13		Driveway 4 to Driveway 6	25,000	10,700	0.43	A	D
14		Driveway 6 to Driveway 9/Concord Way	25,000	10,800	0.43	A	D
15		East of Driveway 9/Concord Way	25,000	10,700	0.43	A	D
16		West of Indian Street	12,500	11,200	0.90	D	D
17		East of Indian Street	25,000	13,700	0.55	A	D
18	Krameria Avenue	Heacock Street to Driveway 5	12,500	2,400	0.19	A	D
19		Driveway 5 to Driveway 7	12,500	2,300	0.18	A	D
20		Driveway 7 to Driveway 8	12,500	2,100	0.17	A	D
21		Driveway 8 to Driveway 10	12,500	1,600	0.13	A	D
22		Driveway 10 to Cosmos Street/Krameria Av. (NS)	12,500	1,600	0.13	A	D
23		East of Krameria Avenue (NS)	12,500	0	0.00	A	D
24		West of Indian Street	12,500	0	0.00	A	D
25		East of Indian Street	12,500	2,100	0.17	A	C
26	San Michele Road	Heacock Street to Indian Street	12,500	3,200	0.26	A	D
27		East of Indian Street	25,000	2,900	0.12	A	D
28	Nandina Avenue	Heacock Street to Indian Street	12,500	1,300	0.10	A	D
29		East of Indian Street	12,500	1,600	0.13	A	D
30	Harley Knox	West of I-215 Freeway	37,500	7,200	0.19	A	D

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY [2] (C)	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
31	Boulevard	I-215 SB Ramps to I-215 NB Ramps	37,500	10,300	0.27	A	D
32		East of I-215 Freeway	25,000	14,000	0.56	A	D
33		West of Indian Street	12,500	11,200	0.90	D	D
34		East of Indian Street	12,500	5,500	0.44	A	D
35	Frontage Road	North of Cactus Avenue	12,500	2,300	0.18	A	D
36	Frederick Street	North of Cactus Avenue	37,500	7,900	0.21	A	D
37	Heacock Street	North of Cactus Avenue	37,500	12,600	0.34	A	D
38		Cactus Avenue to John F. Kennedy Drive	37,500	21,600	0.58	A	D
39		John F. Kennedy Drive to Gentian Avenue	37,500	17,100	0.46	A	D
40		Gentian Avenue to Iris Avenue	12,500	***14,700***	***1.18***	***F***	D
41		Iris Avenue to Driveway 1	25,000	4,400	0.18	A	D
42		Driveway 1 to Driveway 2	25,000	4,200	0.17	A	D
43		Driveway 2 to Krameria Avenue (EW)	25,000	4,500	0.18	A	D
44		Krameria Avenue (EW) to Driveway 3	25,000	4,000	0.16	A	D
45		South of Driveway 3	25,000	4,100	0.16	A	D
46		North of San Michele Road	12,500	4,600	0.37	A	D
47		San Michele Road to Nandina Avenue	12,500	1,500	0.12	A	D
48		South of Nandina Avenue	12,500	300	0.02	A	D
49	Concord Way	North of Iris Avenue	12,500	100	0.01	A	C
50	"A" Street	Driveway 11 to Driveway 12	12,500	0	0.00	A	C
51		Driveway 12 to Driveway 13	12,500	600	0.05	A	C
52		Driveway 13 to Krameria Avenue (EW)	12,500	1,200	0.10	A	C
53	Krameria Avenue (NS)	Krameria Avenue (EW) to Driveway 14	12,500	300	0.02	A	C
54		Driveway 14 to Driveway 15/Krameria Av.-South (EW)	12,500	300	0.02	A	C
55	Indian Street	North of Iris Avenue	12,500	8,100	0.65	B	D
56		South of Iris Avenue	12,500	7,000	0.56	A	D
57		North of Krameria Avenue	12,500	3,600	0.29	A	D
58		South of Krameria Avenue	12,500	1,900	0.15	A	D
59		North of San Michele Road	25,000	100	0.00	A	D
60		San Michele Road to Nandina Avenue	12,500	4,800	0.38	A	D
61		South of Nandina Avenue	12,500	6,600	0.53	A	D
62		North of Harley Knox Boulevard	12,500	7,800	0.62	B	D

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY [2] (C)	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
63		South of Harley Knox Boulevard	12,500	1,200	0.10	A	D

1: Per Figure 9-2: City of Moreno Valley Level of Service (LOS) Standards, City of Moreno Valley General Plan Circulation Element.
2: These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic), and pedestrian and bicycle traffic.
3: ***Bold and italics*** indicate unacceptable LOS.
Source: Urban Crossroads, Inc., 2011e, Table 5-2.

Table 4.11-18 Intersection Analysis for Existing Plus Project (E+P) Conditions

ID	INTERSECTION	JURISDICTION[2]	TRAFFIC CONTROL[3]	DELAY[1] (SECONDS)		LOS[4]	
				AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Avenue	Caltrans, RivCo	TS	14.2	24.2	B	C
2	I-215 SB Ramps / Harley Knox Boulevard	Caltrans, RivCo	TS	28.9	35.0	C	D
3	I-215 NB Ramps / Cactus Avenue	Caltrans, MJPA	TS	13.4	5.1	B	A
4	I-215 NB Ramps / Harley Knox Boulevard	Caltrans, Perris	TS	18.6	18.5	B	B
5	Frederick Street / Cactus Avenue	MV, MJPA	TS	18.4	15.6	B	B
6	Heacock Street / Cactus Avenue	MV, MJPA	TS	41.3	33.8	D	C
7	Heacock Street / John F. Kennedy Drive	MV, MJPA	TS	31.2	34.6	C	C
8	Heacock Street / Gentian Avenue	MV, MJPA	CSS	25.8	33.9	D	D
9	Heacock Street / Iris Avenue	MV, MJPA	AWS	24.9	***45.7***	C	***F***[5]
10	Heacock Street / Driveway 1	MV, MJPA	CSS	9.3	9.4	A	A
11	Heacock Street / Driveway 2	MV, MJPA	CSS	10.4	10.3	B	B
12	Heacock Street / Krameria Avenue (EW)	MV, MJPA	CSS	10.3	10.1	B	B
13	Heacock Street / Driveway 3	MV, MJPA	CSS	10.6	10.5	B	B
14	Heacock Street / San Michele Road	MV, MJPA	TS	31.9	32.3	C	C
15	Heacock Street / Nandina Avenue	MV, MJPA	CSS	8.6	8.4	A	A
16	Driveway 4 / Iris Avenue	MV	CSS	9.0	10.0	A	A
17	Driveway 5 / Krameria Avenue (EW)	MV	CSS	8.7	9.1	A	A
18	Driveway 6 / Iris Avenue	MV	CSS	20.5	15.8	C	C
19	Driveway 7 / Krameria Avenue (EW)	MV	CSS	9.5	9.4	A	A
20	Driveway 8 / Krameria Avenue (EW)	MV	CSS	9.2	9.3	A	A
21	Driveway 9/Concord Way / Iris Avenue	MV	CSS	15.3	10.0	C	A
22	Driveway 10 / Krameria Avenue (EW)	MV	CSS	8.8	8.9	A	A
23	Cosmos Street / Driveway 11	MV	CSS	7.2	8.3	A	A
24	Cosmos Street / Driveway 12	MV	CSS	8.3	8.4	A	A
25	Cosmos Street / Driveway 13	MV	CSS	8.4	8.6	A	A
26	Cosmos Street / Krameria Avenue (EW)	MV	CSS	8.9	8.9	A	A
27	Krameria Avenue (NS) / Driveway 14	MV	CSS	8.6	8.6	A	A
28	Krameria Avenue (NS) / Driveway 15	MV	CSS	8.6	8.6	A	A
29	Indian Street / Iris Avenue	MV	TS	52.0	40.0	D	D
30	Indian Street / Krameria Avenue	MV	CSS	9.9	12.5	A	B
31	Indian Street / San Michele Road	MV	TS	26.6	19.8	C	B
32	Indian Street / Nandina Avenue	MV	TS	31.4	28.2	C	C
33	Indian Street / Harley Knox Boulevard	Perris	AWS	15.4	13.4	C	B

1: Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
2: MV = City of Moreno Valley; MJPA = March Joint Powers Authority; RivCo = Riverside County; Perris = City of Perris
3: CSS = Cross-Street Stop; AWS = All-Way Stop; TS = Traffic Signal
4: ***Bold and italics*** indicate unacceptable LOS.
5: Volume-to-capacity ratio is greater than 1.00; Intersection unstable; LOS "F."
Source: Urban Crossroads, Inc., September 8, 2011.

Table 4.11-19 Opening Year (2016) Conditions Roadway Volume/Capacity (V/C) Analysis[1]

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
				ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
1	Cactus Avenue	West of I-215 Freeway	37,500	7,287	0.19	A	D	7,287	0.19	A	D
2		I-215 SB Ramps to I-215 NB On-Ramp	25,000	14,463	0.58	A	D	15,263	0.61	B	D
3		I-215 NB On-Ramp to I-215 NB Ramps/Frontage Road	37,500	33,564	0.90	D	D	***35,164***	***0.94***	***E***	D
4		I-215 to Elsworth Street	37,500	33,233	0.89	D	D	***34,833***	***0.93***	***E***	D
5		Veterans Way to Frederick Street	37,500	***35,662***	***0.95***	***E***	D	***37,362***	***1.00***	***E***	D
6		East of Frederick Street	46,900	39,305	0.84	D	D	41,005	0.87	D	D
7		West of Heacock Street	46,900	30,362	0.65	B	D	32,062	0.68	B	D
8		East of Heacock Street	37,500	19,763	0.53	A	C	19,763	0.53	A	C
9	Meyer Drive	West of Heacock Street	37,500	7,066	0.19	A	C	7,066	0.19	A	C
10	John F. Kennedy Drive	East of Heacock Street	37,500	10,158	0.27	A	C	10,158	0.27	A	C
11	Gentian Avenue	East of Heacock Street	12,500	1,987	0.16	A	D	1,987	0.16	A	D
12	Iris Avenue	Heacock Street to Driveway 4	25,000	11,482	0.46	A	D	11,782	0.47	A	D
13		Driveway 4 to Driveway 6	25,000	11,482	0.46	A	D	11,782	0.47	A	D
14		Driveway 6 to Driveway 9/Concord Way	25,000	11,482	0.46	A	D	11,882	0.48	A	D
15		East of Driveway 9/Concord Way	25,000	11,372	0.45	A	D	11,772	0.47	A	D

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
				ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
16		West of Indian Street	12,500	***11,924***	***0.95***	***E***	D	***12,324***	***0.99***	***E***	D
17		East of Indian Street	25,000	14,684	0.59	A	D	15,084	0.60	A	D
18	Krameria Avenue	Heacock Street to Driveway 5	12,500	0	0.00	A	D	2,400	0.19	A	D
19		Driveway 5 to Driveway 7	12,500	0	0.00	A	D	2,300	0.18	A	D
20		Driveway 7 to Driveway 8	12,500	0	0.00	A	D	2,100	0.17	A	D
21		Driveway 8 to Driveway 10	12,500	0	0.00	A	D	1,600	0.13	A	D
22		Driveway 10 to Cosmos Street/Krameria Avenue (NS)	12,500	0	0.00	A	D	1,600	0.13	A	D
23		East of Krameria Avenue (NS)	12,500	0	0.00	A	D	0	0.00	A	D
24		West of Indian Street	12,500	0	0.00	A	D	0	0.00	A	D
25		East of Indian Street	12,500	2,098	0.17	A	C	2,298	0.18	A	C
26	San Michele Road	Heacock Street to Indian Street	12,500	1,656	0.13	A	D	3,356	0.27	A	D
27		East of Indian Street	25,000	3,202	0.13	A	D	3,202	0.13	A	D
28	Nandina Avenue	Heacock Street to Indian Street	12,500	1,325	0.11	A	D	1,425	0.11	A	D
29		East of Indian Street	12,500	1,767	0.14	A	D	1,767	0.14	A	D

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
				ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
30	Harley Knox Boulevard	West of I-215 Freeway	37,500	7,949	0.21	A	D	7,949	0.21	A	D
31		I-215 SB Ramps to I-215 NB Ramps	37,500	10,489	0.28	A	D	11,289	0.30	A	D
32		East of I-215 Freeway	25,000	13,691	0.55	A	D	15,291	0.61	B	D
33		West of Indian Street	12,500	10,599	0.85	D	D	***12,199***	***0.98***	***E***	D
34		East of Indian Street	12,500	5,741	0.46	A	D	6,041	0.48	A	D
35	Frontage Road	North of Cactus Avenue	12,500	2,539	0.20	A	D	2,539	0.20	A	D
36	Frederick Street	North of Cactus Avenue	37,500	8,722	0.23	A	D	8,722	0.23	A	D
37	Heacock Street	North of Cactus Avenue	37,500	13,470	0.36	A	D	13,870	0.37	A	D
38		Cactus Avenue to John F. Kennedy Drive	37,500	21,640	0.58	A	D	23,640	0.63	B	D
39		John F. Kennedy Drive to Gentian Avenue	37,500	16,672	0.44	A	D	18,672	0.50	A	D
40		Gentian Avenue to Iris Avenue	12,500	***14,022***	***1.12***	***F***	D	***16,022***	***1.28***	***F***	D
41		Iris Avenue to Driveway 1	25,000	2,539	0.10	A	D	4,639	0.19	A	D
42		Driveway 1 to Driveway 2	25,000	2,539	0.10	A	D	4,439	0.18	A	D
43		Driveway 2 to Krameria Avenue (EW)	25,000	2,539	0.10	A	D	4,739	0.19	A	D
44		Krameria Avenue (EW) to Driveway 3	25,000	2,539	0.10	A	D	4,239	0.17	A	D
45		South of Driveway 3	25,000	2,539	0.10	A	D	4,339	0.17	A	D

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
				ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
46		North of San Michele Road	12,500	3,091	0.25	A	D	4,891	0.39	A	D
47		San Michele Road to Nandina Avenue	12,500	1,546	0.12	A	D	1,646	0.13	A	D
48		South of Nandina Avenue	12,500	331	0.03	A	D	331	0.03	A	D
49	Concord Way	North of Iris Avenue	12,500	110	0.01	A	C	110	0.01	A	C
50	"A" Street	Driveway 11 to Driveway 12	12,500	0	0.00	A	C	0	0.00	A	C
51		Driveway 12 to Driveway 13	12,500	0	0.00	A	C	600	0.05	A	C
52		Driveway 13 to Krameria Avenue (EW)	12,500	0	0.00	A	C	1,200	0.10	A	C
53	Krameria Avenue (NS)	Krameria Avenue (EW) to Driveway 14	12,500	0	0.00	A	C	300	0.02	A	C
54		Driveway 14 to Driveway 15/Krameria Avenue-South (EW)	12,500	0	0.00	A	C	300	0.02	A	C

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
				ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
55	Indian Street	North of Iris Avenue	12,500	8,943	0.72	C	D	8,943	0.72	C	D
56		South of Iris Avenue	12,500	7,729	0.62	B	D	7,729	0.62	B	D
57		North of Krameria Avenue	12,500	3,975	0.32	A	D	3,975	0.32	A	D
58		South of Krameria Avenue	12,500	2,098	0.17	A	D	2,098	0.17	A	D
59		North of San Michele Road	25,000	110	0.00	A	D	110	0.00	A	D
60		San Michele Road to Nandina Avenue	12,500	3,423	0.27	A	D	5,123	0.41	A	D
61		South of Nandina Avenue	12,500	5,300	0.42	A	D	7,100	0.57	A	D
62		North of Harley Knox Boulevard	12,500	6,624	0.53	A	D	8,424	0.67	B	D
63		South of Harley Knox Boulevard	12,500	1,325	0.11	A	D	1,325	0.11	A	D

1: Figure 9-2: City of Moreno Valley Level of Service (LOS) Standards, City of Moreno Valley General Plan Circulation Element.
2: These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic), and pedestrian and bicycle traffic.
3: ***Bold and italics*** indicate unacceptable LOS.
Source: Urban Crossroads, Inc., 2011e, Table 6-2.

Table 4.11-20 Intersection Analysis for Opening Year (2016) Conditions

ID	INTERSECTION	JURISDICTION[2]	TRAFFIC CONTROL[3]	EXISTING (2011)				OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
				DELAY[1] (SECONDS)		LOS[5]		DELAY[1] (SECONDS)		LOS[5]		DELAY[1] (SECONDS)		LOS[5]	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Avenue	Caltrans, RivCo	TS	14.2	23.4	B	C	13.2	28.0	B	C	13.2	29.4	B	C
2	I-215 SB Ramps / Harley Knox Boulevard	Caltrans, RivCo	TS	26.6	27.6	C	C	28.0	29.9	C	C	32.4	41.5	C	D
3	I-215 NB Ramps / Cactus Avenue	Caltrans, MJPA	TS	12.9	4.8	B	A	16.0	5.3	B	A	16.6	5.6	B	A
4	I-215 NB Ramps / Harley Knox Boulevard	Caltrans, Perris	TS	18.1	18.1	B	B	18.4	18.5	B	B	19.1	18.9	B	B
5	Frederick Street / Cactus Avenue	MV, MJPA	TS	18.3	16.5	B	B	20.9	17.1	C	B	21.3	17.2	C	B
6	Heacock Street / Cactus Avenue	MV, MJPA	TS	40.8	32.3	D	C	46.9	34.3	D	C	48.5	36.6	D	D
7	Heacock Street / John F. Kennedy Drive	MV, MJPA	TS	30.8	34.6	C	C	32.5	35.4	C	D	32.9	35.4	C	D
8	Heacock Street / Gentian Avenue	MV, MJPA	CSS	21.8	27.8	C	D	24.9	33.2	C	D	29.8	***40.8***	D	***E***
9	Heacock Street / Iris Avenue	MV, MJPA	AWS	21.1	***42.3***	C	***F***[4]	31.1	***65.7***	D	***F***	***37.7***	***69.7***	***E***	***F***
10	Heacock Street / Driveway 1	MV, MJPA	CSS	Proposed Future Project Intersection								9.4	9.4	A	A
11	Heacock Street / Driveway 2	MV, MJPA	CSS	Proposed Future Project Intersection								10.5	10.4	B	B
12	Heacock Street / Krameria Avenue (EW)	MV, MJPA	CSS	Proposed Future Project Intersection								10.4	10.2	B	B
13	Heacock Street / Driveway 3	MV, MJPA	CSS	Proposed Future Project Intersection								10.7	10.6	B	B
14	Heacock Street / San Michele Road	MV, MJPA	TS	30.4	30.8	C	C	30.6	31.0	C	C	32.2	32.5	C	C

ID	INTERSECTION	JURISDICTION[2]	TRAFFIC CONTROL[3]	EXISTING (2011)				OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
				DELAY[1] (SECONDS)		LOS[5]		DELAY[1] (SECONDS)		LOS[5]		DELAY[1] (SECONDS)		LOS[5]	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
15	Heacock Street / Nandina Avenue	MV, MJPA	CSS	8.6	8.4	A	A	8.6	8.4	A	A	8.6	8.4	A	A
16	Driveway 4 / Iris Avenue	MV	CSS	Proposed Future Project Intersection								9.1	10.2	A	B
17	Driveway 5 / Krameria Avenue (EW)	MV	CSS	Proposed Future Project Intersection								8.7	9.1	A	A
18	Driveway 6 / Iris Avenue	MV	CSS	Proposed Future Project Intersection								23.4	17.3	C	C
19	Driveway 7 / Krameria Avenue (EW)	MV	CSS	Proposed Future Project Intersection								9.3	9.4	A	A
20	Driveway 8 / Krameria Avenue (EW)	MV	CSS	Proposed Future Project Intersection								9.2	9.3	A	A
21	Driveway 9/Concord Way / Iris Avenue	MV	CSS	15.6	9.8	C	A	16.9	10.0	C	A	16.5	10.2	C	B
22	Driveway 10 / Krameria Avenue (EW)	MV	CSS	Proposed Future Project Intersection								8.8	8.9	A	A
23	Cosmos Street / Driveway 11	MV	CSS	Proposed Future Project Intersection								7.2	8.3	A	A
24	Cosmos Street / Driveway 12	MV	CSS	Proposed Future Project Intersection								8.3	8.4	A	A
25	Cosmos Street / Driveway 13	MV	CSS	Proposed Future Project Intersection								8.4	8.6	A	A
26	Cosmos Street / Krameria Avenue (EW)	MV	CSS	Proposed Future Project Intersection								8.9	8.9	A	A
27	Krameria Avenue (NS) / Driveway 14	MV	CSS	Proposed Future Project Intersection								8.6	8.6	A	A
28	Krameria Avenue (NS) / Driveway 15	MV	CSS	Proposed Future Project Intersection								8.6	8.6	A	A
29	Indian Street / Iris Avenue	MV	TS	51.5	39.3	D	D	***63.8***	43.2	***E***	D	***64.9***	44.2	***E***	D

ID	INTERSECTION	JURISDICTION[2]	TRAFFIC CONTROL[3]	EXISTING (2011)				OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
				DELAY[1] (SECONDS)		LOS[5]		DELAY[1] (SECONDS)		LOS[5]		DELAY[1] (SECONDS)		LOS[5]	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
30	Indian Street / Krameria Avenue	MV	CSS	9.3	11.3	A	B	9.4	11.7	A	B	10.0	13.0	B	B
31	Indian Street / San Michele Road	MV	TS	28.1	20.0	C	B	28.7	20.2	C	C	27.2	20.0	C	C
32	Indian Street / Nandina Avenue	MV	TS	30.9	27.6	C	C	31.2	27.9	C	C	31.8	28.5	C	C
33	Indian Street / Harley Knox Boulevard	Perris	AWS	12.7	11.7	B	B	14.2	12.8	B	B	18.0	14.9	C	B

1: Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
2: MV = City of Moreno Valley; MJPA = March Joint Powers Authority; RivCo = Riverside County; Perris = City of Perris
3: CSS = Cross-Street Stop; AWS = All-Way Stop; TS = Traffic Signal
4: Volume-to-capacity ratio is greater than 1.00; Intersection unstable; Level of Service "F."
5: ***Bold and italics*** indicate unacceptable LOS.
Source: Urban Crossroads, Inc., 2011e, Table 6-1.

Table 4.11-21 Horizon Year (2016) Conditions Roadway Volume/Capacity (V/C) Analysis[1]

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	HORIZON YEAR (2016) WITHOUT PROJECT (E+A+C)				HORIZON YEAR (2016) WITH PROJECT (E+A+C+P)			
				ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
1	Cactus Avenue	West of I-215 Freeway	37,500	26,787	0.71	C	D	26,787	0.71	C	D
2		I-215 SB Ramps to I-215 NB On-Ramp	25,000	***33,763***	***1.35***	***F***	D	***34,563***	***1.38***	***F***	D
3		I-215 NB On-Ramp to I-215 NB Ramps/Frontage Road	37,500	***54,464***	***1.45***	***F***	D	***56,064***	***1.50***	***F***	D
4		I-215 to Elsworth Street	37,500	***49,233***	***1.31***	***F***	D	***50,833***	***1.36***	***F***	D
5		Veterans Way to Frederick Street	37,500	***53,462***	***1.43***	***F***	D	***55,162***	***1.47***	***F***	D
6		East of Frederick Street	46,900	***56,205***	***1.20***	***F***	D	***57,905***	***1.23***	***F***	D
7		West of Heacock Street	46,900	***42,662***	***0.91***	***E***	D	***44,362***	***0.95***	***E***	D
8		East of Heacock Street	37,500	26,863	0.72	C	C	26,863	0.72	C	C
9	Meyer Drive	West of Heacock Street	37,500	12,466	0.33	A	C	12,466	0.33	A	C
10	John F. Kennedy Drive	East of Heacock Street	37,500	13,758	0.37	A	C	13,758	0.37	A	C
11	Gentian Avenue	East of Heacock Street	12,500	3,887	0.31	A	D	3,887	0.31	A	D
12	Iris Avenue	Heacock Street to Driveway 4	25,000	13,182	0.53	A	D	13,482	0.54	A	D
13		Driveway 4 to Driveway 6	25,000	13,182	0.53	A	D	13,482	0.54	A	D
14		Driveway 6 to Driveway 9/Concord Way	25,000	13,182	0.53	A	D	13,582	0.54	A	D
15		East of Driveway 9/Concord Way	25,000	12,772	0.51	A	D	13,172	0.53	A	D
16		West of Indian Street	12,500	***13,524***	***1.08***	***F***	D	***13,924***	***1.11***	***F***	D
17		East of Indian Street	25,000	15,984	0.64	B	D	16,384	0.66	B	D
18	Krameria Avenue	Heacock Street to Driveway 5	12,500	3,600	0.29	A	D	6,000	0.48	A	D

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	HORIZON YEAR (2016) WITHOUT PROJECT (E+A+C)				HORIZON YEAR (2016) WITH PROJECT (E+A+C+P)			
				ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
19		Driveway 5 to Driveway 7	12,500	3,600	0.29	A	D	5,900	0.47	A	D
20		Driveway 7 to Driveway 8	12,500	3,600	0.29	A	D	5,700	0.46	A	D
21		Driveway 8 to Driveway 10	12,500	3,600	0.29	A	D	5,200	0.42	A	D
22		Driveway 10 to Cosmos Street/Krameria Avenue (NS)	12,500	3,600	0.29	A	D	5,200	0.42	A	D
23		East of Krameria Avenue (NS)	12,500	500	0.04	A	D	500	0.04	A	D
24		West of Indian Street	12,500	400	0.03	A	D	600	0.05	A	D
25		East of Indian Street	12,500	2,998	0.24	A	C	3,198	0.26	A	C
26	San Michele Road	Heacock Street to Indian Street	25,000	***22,156***	***1.77***	***F***	D	***23,856***	***1.91***	***F***	D
27		East of Indian Street	12,500	11,702	0.47	A	D	11,702	0.47	A	D
28	Nandina Avenue	Heacock Street to Indian Street	12,500	5,025	0.40	A	D	5,125	0.41	A	D
29		East of Indian Street	37,500	2,067	0.17	A	D	2,067	0.17	A	D
30	Harley Knox Boulevard	West of I-215 Freeway	37,500	16,649	0.44	A	D	16,649	0.44	A	D
31		I-215 SB Ramps to I-215 NB Ramps	25,000	28,189	0.75	C	D	28,989	0.77	C	D
32		East of I-215 Freeway	12,500	***40,391***	***1.62***	***F***	D	***41,991***	***1.68***	***F***	D
33		West of Indian Street	12,500	***34,899***	***2.79***	***F***	D	***36,499***	***2.92***	***F***	D
34		East of Indian Street	12,500	***12,141***	***0.97***	***E***	D	***12,441***	***1.00***	***E***	D
35	Frontage Road	North of Cactus Avenue	37,500	2,839	0.23	A	D	2,839	0.23	A	D
36	Frederick Street	North of Cactus Avenue	37,500	11,622	0.31	A	D	11,622	0.31	A	D
37	Heacock Street	North of Cactus Avenue	37,500	19,270	0.51	A	D	19,670	0.52	A	D
38		Cactus Avenue to John F. Kennedy Drive	37,500	30,740	0.82	D	D	32,740	0.87	D	D

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	HORIZON YEAR (2016) WITHOUT PROJECT (E+A+C)				HORIZON YEAR (2016) WITH PROJECT (E+A+C+P)			
				ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
39		John F. Kennedy Drive to Gentian Avenue	12,500	24,972	0.67	B	D	26,972	0.72	B	D
40		Gentian Avenue to Iris Avenue	25,000	***20,622***	***1.65***	***F***	D	***22,622***	***1.81***	***F***	D
41		Iris Avenue to Driveway 1	25,000	8,339	0.33	A	D	10,439	0.42	A	D
42		Driveway 1 to Driveway 2	25,000	8,339	0.33	A	D	10,239	0.41	A	D
43		Driveway 2 to Krameria Avenue (EW)	12,500	8,339	0.33	A	D	10,539	0.42	A	D
44		Krameria Avenue (EW) to Driveway 3	25,000	11,339	0.45	A	D	13,039	0.52	A	D
45		South of Driveway 3	25,000	11,339	0.45	A	D	13,139	0.53	A	D
46		North of San Michele Road	12,500	***11,691***	***0.94***	***E***	D	***13,491***	***1.08***	***F***	D
47		San Michele Road to Nandina Avenue	12,500	2,146	0.17	A	D	2,246	0.18	A	D
48		South of Nandina Avenue	12,500	331	0.03	A	D	331	0.03	A	D
49	Concord Way	North of Iris Avenue	12,500	1,610	0.13	A	C	1,610	0.13	A	C
50	"A" Street	Driveway 11 to Driveway 12	12,500	0	0.00	A	C	0	0.00	A	C
51		Driveway 12 to Driveway 13	12,500	400	0.03	A	C	1,000	0.08	A	C
52		Driveway 13 to Krameria Avenue (EW)	12,500	900	0.07	A	C	2,100	0.17	A	C
53	Krameria Avenue (NS)	Krameria Avenue (EW) to Driveway 14	12,500	2,400	0.19	A	C	2,700	0.22	A	C
54		Driveway 14 to Driveway 15/Krameria Av.-South (EW)	12,500	2,400	0.19	A	C	2,700	0.22	A	C
55	Indian Street	North of Iris Avenue	12,500	9,143	0.73	C	D	9,143	0.73	C	D
56		South of Iris Avenue	12,500	8,229	0.66	B	D	8,229	0.66	B	D
57		North of Krameria Avenue	12,500	4,475	0.36	A	D	4,475	0.36	A	D
58		South of Krameria Avenue	12,500	2,098	0.17	A	D	2,098	0.17	A	D

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	HORIZON YEAR (2016) WITHOUT PROJECT (E+A+C)				HORIZON YEAR (2016) WITH PROJECT (E+A+C+P)			
				ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
59		North of San Michele Road	25,000	110	0.00	A	D	110	0.00	A	D
60		San Michele Road to Nandina Avenue	12,500	***16,423***	***1.31***	***F***	D	***18,123***	***1.45***	***F***	D
61		South of Nandina Avenue	12,500	***21,800***	***1.74***	***F***	D	***23,600***	***1.89***	***F***	D
62		North of Harley Knox Boulevard	12,500	***23,924***	***1.91***	***F***	D	***25,724***	***2.06***	***F***	D
63		South of Harley Knox Boulevard	12,500	6,025	0.48	A	D	6,025	0.48	A	D

1: Figure 9-2: City of Moreno Valley Level of Service (LOS) Standards, City of Moreno Valley General Plan Circulation Element.
2: These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic), and pedestrian and bicycle traffic.
3: ***Bold and italics*** indicate unacceptable LOS.
Source: Urban Crossroads, Inc., 2011e, Table 7-2.

Table 4.11-22 Intersection Analysis for Horizon Year (2016) Conditions

ID	INTERSECTION	JURISDICTION[2]	TRAFFIC CONTROL[3]	EXISTING (2011)				HORIZON YEAR (2016) WITHOUT PROJECT (E+A+C)				HORIZON YEAR (2016) WITH PROJECT (E+A+C+P)			
				DELAY[1] (SECONDS)		LOS[5]		DELAY[1] (SECONDS)		LOS[5]		DELAY[1] (SECONDS)		LOS[5]	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Avenue	Caltrans, RivCo	TS	14.2	23.4	B	C	***92.7***	***172.4***	***F***	***F***	***93.1***	***173.8***	***F***	***F***
2	I-215 SB Ramps / Harley Knox Boulevard	Caltrans, RivCo	TS	26.6	27.6	C	C	***791.1***	***627.8***	***F***	***F***	***806.5***	***731.0***	***F***	***F***
3	I-215 NB Ramps / Cactus Avenue	Caltrans, MJPA	TS	***260.9***	***258.4***	***F***	***F***	***707.4***	***680.9***	***F***	***F***	***733.6***	***732.1***	***F***	***F***
4	I-215 NB Ramps / Harley Knox Boulevard	Caltrans, Perris	TS	18.1	18.1	B	B	***194.7***	***353.5***	***F***	***F***	***233.9***	***362.8***	***F***	***F***
5	Frederick Street / Cactus Avenue	MV, MJPA	TS	18.3	16.5	B	B	***97.1***	48.7	***F***	D	***99.7***	54.5	***F***	D
6	Heacock Street / Cactus Avenue	MV, MJPA	TS	40.8	32.3	D	C	***132.1***	***61.3***	***F***	***E***	***135.2***	***69.7***	***F***	***E***
7	Heacock Street / John F. Kennedy Drive	MV, MJPA	TS	30.8	34.6	C	C	40.6	46.2	D	D	41.7	49.0	D	D
8	Heacock Street / Gentian Avenue	MV, MJPA	CSS	21.8	27.8	C	D	***56.8***	***178.9***	***F***	***F***	***69.3***	***241.5***	***F***	***F***
9	Heacock Street / Iris Avenue	MV, MJPA	AWS	21.1	***42.3***	C	***F***[4]	***50.8***	***102.7***	***F***	***F***	***60.5***	***113.4***	***F***	***F***
10	Heacock Street / Driveway 1	MV, MJPA	CSS	Intersection Not Analyzed								11.5	12.5	B	B
11	Heacock Street / Driveway 2	MV, MJPA	CSS	Intersection Not Analyzed								15.1	16.8	C	C
12	Heacock Street / Krameria Avenue (EW)	MV, MJPA	CSS	Intersection Not Analyzed				17.3	28.5	C	D	25.9	***89.1***	D	***F***
13	Heacock Street / Driveway 3	MV, MJPA	CSS	Intersection Not Analyzed								20.0	22.9	C	C
14	Heacock Street / San Michele Road	MV, MJPA	TS	30.4	30.8	C	C	***103.0***	***75.7***	***F***	***E***	***145.3***	***109.4***	***F***	***F***
15	Heacock Street / Nandina Avenue	MV, MJPA	CSS	8.6	8.4	A	A	8.6	8.5	A	A	8.6	8.5	A	A
16	Driveway 4 / Iris Avenue	MV	CSS	Intersection Not Analyzed								9.4	10.4	A	B
17	Driveway 5 / Krameria Avenue (EW)	MV	CSS	Intersection Not Analyzed								9.4	10.6	A	B
18	Driveway 6 / Iris Avenue	MV	CSS	Intersection Not Analyzed								28.9	20.9	D	C

ID	INTERSECTION	JURISDICTION[2]	TRAFFIC CONTROL[3]	EXISTING (2011)				HORIZON YEAR (2016) WITHOUT PROJECT (E+A+C)				HORIZON YEAR (2016) WITH PROJECT (E+A+C+P)			
				DELAY[1] (SECONDS)		LOS[5]		DELAY[1] (SECONDS)		LOS[5]		DELAY[1] (SECONDS)		LOS[5]	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
19	Driveway 7 / Krameria Avenue (EW)	MV	CSS	Intersection Not Analyzed								10.9	11.4	B	B
20	Driveway 8 / Krameria Avenue (EW)	MV	CSS	Intersection Not Analyzed								10.8	11.2	B	B
21	Driveway 9/Concord Way / Iris Avenue	MV	CSS	15.6	9.8	C	A	23.8	28.4	C	D	23.6	20.0	C	C
22	Driveway 10 / Krameria Avenue (EW)	MV	CSS	Intersection Not Analyzed								9.8	10.4	A	B
23	Cosmos Street / Driveway 11	MV	CSS	Intersection Not Analyzed								7.2	8.3	A	A
24	Cosmos Street / Driveway 12	MV	CSS	Intersection Not Analyzed				8.5	8.5	A	A	9.0	8.9	A	A
25	Cosmos Street / Driveway 13	MV	CSS	Intersection Not Analyzed				8.7	8.8	A	A	9.5	9.5	A	A
26	Cosmos Street / Krameria Avenue (EW)	MV	CSS	Intersection Not Analyzed				10.0	11.5	B	B	10.4	12.5	B	B
27	Krameria Avenue (NS) / Driveway 14	MV	CSS	Intersection Not Analyzed								9.5	9.5	A	A
28	Krameria Avenue (NS) / Driveway 15	MV	CSS	Intersection Not Analyzed				8.9	8.7	A	A	9.2	9.2	A	A
29	Indian Street / Iris Avenue	MV	TS	51.5	39.3	D	D	53.2	45.9	D	D	54.1	47.5	D	D
30	Indian Street / Krameria Avenue	MV	CSS	9.3	11.3	A	B	10.1	14.2	B	B	10.2	14.5	B	B
31	Indian Street / San Michele Road	MV	TS	28.1	20.0	C	B	***88.0***	***208.8***	***F***	***F***	***108.1***	***248.5***	***F***	***F***
32	Indian Street / Nandina Avenue	MV	TS	30.9	27.6	C	C	***207.9***	***154.1***	***F***	***F***	***241.1***	***186.1***	***F***	***F***
33	Indian Street / Harley Knox Boulevard	Perris	AWS	12.7	11.7	B	B	***581.2***	***491.7***	***F***	***F***	***632.2***	***545.2***	***F***	***F***

1: Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
2: MV = City of Moreno Valley; MJPA = March Joint Powers Authority; RivCo = Riverside County; Perris = City of Perris
3: CSS = Cross-Street Stop; AWS = All-Way Stop; TS = Traffic Signal
4: Volume-to-capacity ratio is greater than 1.00; Intersection unstable; Level of Service "F."
5: ***Bold and italics*** indicate unacceptable LOS.
Source: Urban Crossroads, Inc., 2011e, Table 7-1.

Table 4.11-23 General Plan Buildout Conditions Roadway Volume/Capacity (V/C) Analysis[1]

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	GENERAL PLAN BUILDOUT WITHOUT PROJECT				GENERAL PLAN BUILDOUT WITH PROJECT			
				ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
12	Iris Avenue	Heacock Street to Driveway 4	37,500	13,000	0.35	A	D	14,000	0.37	A	D
13		Driveway 4 to Driveway 6	37,500	13,000	0.35	A	D	14,000	0.37	A	D
14		Driveway 6 to Driveway 9/Concord Way	37,500	13,000	0.35	A	D	14,100	0.38	A	D
15		East of Driveway 9/Concord Way	37,500	14,000	0.37	A	D	14,100	0.38	A	D
16		West of Indian Street	37,500	14,000	0.37	A	D	15,000	0.40	A	D
17		East of Indian Street	37,500	21,000	0.56	A	D	21,000	0.56	A	D
18	Krameria Avenue	Heacock Street to Driveway 5	37,500	12,000	0.32	A	D	9,000	0.72	C	D
19		Driveway 5 to Driveway 7	37,500	12,000	0.32	A	D	8,900	0.71	C	D
20		Driveway 7 to Driveway 8	37,500	12,000	0.32	A	D	8,200	0.66	B	D
21		Driveway 8 to Driveway 10	37,500	12,000	0.32	A	D	8,200	0.66	B	D
22		Driveway 10 to Cosmos Street/Krameria Avenue (NS)	37,500	12,000	0.32	A	D	8,200	0.66	B	D
23		East of Krameria Avenue (NS)	37,500	11,000	0.29	A	D	5,900	0.47	A	D
24		West of Indian Street	37,500	11,000	0.29	A	D	8,000	0.21	A	D
25		East of Indian Street	37,500	12,000	0.32	A	C	11,000	0.29	A	C
40	Heacock Street	Gentian Avenue to Iris Avenue	37,500	30,000	0.80	C	D	28,100	0.75	C	D
41		Iris Avenue to Driveway 1	37,500	24,000	0.64	B	D	21,100	0.56	A	D
42		Driveway 1 to Driveway 2	37,500	24,000	0.64	B	D	20,900	0.56	A	D
43		Driveway 2 to Krameria Avenue (EW)	37,500	24,000	0.64	B	D	21,200	0.57	A	D
44		Krameria Avenue (EW) to Driveway 3	37,500	24,000	0.64	B	D	20,700	0.55	A	D
45		South of Driveway 3	37,500	24,000	0.64	B	D	20,800	0.55	A	D
49	Concord Way	North of Iris Avenue	12,500	1,800	0.14	A	C	1,800	0.14	A	C

ID	ROADWAY	SEGMENT LIMITS	LOS CAPACITY[2] (C)	GENERAL PLAN BUILDOUT WITHOUT PROJECT				GENERAL PLAN BUILDOUT WITH PROJECT			
				ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS	ADT VOLUME (V)	V/C	LOS[3]	ACCEPTABLE LOS
50	"A" Street	Driveway 11 to Driveway 12	12,500	7,000	0.56	A	C	0	0.00	A	C
51		Driveway 12 to Driveway 13	12,500	7,000	0.56	A	C	1,000	0.08	A	C
52		Driveway 13 to Krameria Avenue (EW)	12,500	7,000	0.56	A	C	2,100	0.17	A	C
53	Krameria Avenue (NS)	Krameria Avenue (EW) to Driveway 14	12,500	7,000	0.56	A	C	6,000	0.48	A	C
54		Driveway 14 to Driveway 15/Krameria Av.-South (EW)	12,500	7,000	0.56	A	C	6,000	0.48	A	C
55	Indian Street	North of Iris Avenue	37,500	***34,000***	***0.91***	***E***	D	***34,000***	***0.91***	***E***	D
56		South of Iris Avenue	37,500	27,000	0.72	C	D	28,000	0.75	C	D
57		North of Krameria Avenue	37,500	27,000	0.72	C	D	28,000	0.75	C	D
58		South of Krameria Avenue	37,500	18,000	0.48	A	D	17,000	0.45	A	D

1: Figure 9-2: City of Moreno Valley Level of Service (LOS) Standards, City of Moreno Valley General Plan Circulation Element.
2: These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic), and pedestrian and bicycle traffic.
3: ***Bold and italics*** indicate unacceptable LOS.
Source: Urban Crossroads, Inc., 2011e, Table 8-4.

Table 4.11-24 Intersection Analysis Summary for General Plan Buildout Conditions

ID	INTERSECTION	JURISDICTION[2]	TRAFFIC CONTROL[3]	GENERAL PLAN BUILDOUT (WITHOUT PROJECT)				GENERAL PLAN BUILDOUT (WITH PROJECT)				CHANGE IN DELAY (SECONDS)	
				DELAY[1] (SECONDS)		LOS		DELAY[1] (SECONDS)		LOS			
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
9	Heacock Street / Iris Avenue	MV, MJPA	TS	27.5	26.4	C	C	27.8	30.2	C	C	0.3	3.8
10	Heacock Street / Driveway 1	MV, MJPA						14.1	17.6	B	C	--	--
11	Heacock Street / Driveway 2	MV, MJPA						20.4	27.1	C	D	--	--
12	Heacock Street / Krameria Avenue (EW)	MV, MJPA	TS	17.9	17.4	B	B	12.6	14.4	B	B	-5.3	-3.0
13	Heacock Street / Driveway 3	MV, MJPA						28.7	33.7	D	D	--	--
16	Driveway 4 / Iris Avenue	MV						10.0	11.4	A	B	--	--
17	Driveway 5 / Krameria Avenue (EW)	MV						9.5	10.8	A	B	--	--
18	Driveway 6 / Iris Avenue	MV						16.0	22.1	C	C	--	--
19	Driveway 7 / Krameria Avenue (EW)	MV						11.1	11.6	B	B	--	--
20	Driveway 8 / Krameria Avenue (EW)	MV						11.0	11.4	B	B	--	--
21	Driveway 9/Concord Way / Iris Avenue	MV	CSS	23.1	19.9	C	C	33.4	31.1	D	D	10.3	11.2
22	Driveway 10 / Krameria Avenue (EW)	MV						9.9	10.8	A	B	--	--
23	Cosmos Street / Driveway 11	MV						7.2	8.3	A	A	--	--
24	Cosmos Street / Driveway 12	MV						8.9	8.9	A	A	--	--
25	Cosmos Street / Driveway 13	MV						9.5	9.5	A	A	--	--
26	Cosmos Street / Krameria Avenue (EW)	MV						10.8	12.7	B	B	--	--
27	Krameria Avenue (NS) / Driveway 14	MV						9.7	9.7	A	A	--	--
28	Krameria Avenue (NS) / Driveway 15	MV	CSS	25.4	22.8	D	C	9.1	9.0	A	A	-16.3	-13.8
29	Indian Street / Iris Avenue	MV	TS	51.7	40.4	D	D	51.4	37.9	D	D	-0.3	-2.5
30	Indian Street / Krameria Avenue	MV	TS	29.5	38.2	C	D	30.5	38.6	C	D	1.0	0.4

1: Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
2: MV = City of Moreno Valley; MJPA = March Joint Powers Authority
3: CSS = Cross-Street Stop; TS = Traffic Signal
Source: Urban Crossroads, Inc., 2011e, Table 8-3.

Table 4.11-25 Existing Plus Project (E+P) Conditions Basic Freeway Segment Analysis

I-215 FREEWAY MAINLINE SEGMENT	VOLUME		LANES[1]	DENSITY[2]		LOS	
	AM	PM		AM	PM	AM	PM
Southbound:							
N of Cactus	3,453	5,176	4	14.9	22.0	B	C
S of Cactus	3,301	5,252	3	18.9	30.9	C	D
N of Harley Knox	2,946	4,277	3	16.8	24.4	B	C
S of Harley Knox	2,747	3,935	3	15.7	22.6	B	C
Northbound:							
N of Cactus	4,722	4,391	4	19.9	18.7	C	C
S of Cactus	5,130	3,995	3	29.7	22.6	D	C
N of Harley Knox	3,369	2,681	3	19.2	15.2	C	B
S of Harley Knox	3,227	2,398	3	18.5	13.7	C	B

1: Number of lanes in the specified direction; based on existing conditions.
2: Density is measured by passenger cars per mile per lane (pc/mi/ln).
Source: Urban Crossroads, Inc., 2011e, Table 5-4.

Table 4.11-26 Existing Plus Project (E+P) Conditions Stacking Length Summary at I-215/ Cactus Avenue and I-215/Harley Knox Boulevard

FREEWAY RAMP INTERSECTION LOCATION / MOVEMENT	STACKING DISTANCE (FEET)	95TH PERCENTILE STACKING DISTANCE REQUIRED (FEET)		ACCEPTABLE?[1]	
		AM	PM	AM	PM
I-215 SB Ramps / Cactus Avenue:					
Southbound Right Turn Lane	1,115	15	0	Yes	Yes
Eastbound Through Lane	675	65	118	Yes	Yes
Eastbound Right Turn Lane	675	22	42	Yes	Yes
Westbound Left Turn Lane	1,022	355[3]	255	Yes	Yes
Westbound Through Lane	1,182	6[3]	1[3]	Yes	Yes
I-215 NB Ramps / Cactus Avenue:					
Northbound Left Turn Lane	145	145	30	Yes	Yes
Northbound Through Lane	1,650	64	21	Yes	Yes
Southbound Left Turn Lane	115	13	42	Yes	Yes
Southbound Right Turn Lane	560	20	22	Yes	Yes
Eastbound Left Turn Lane	190	17	11	Yes	Yes
Eastbound Through Lane	1,182	123	93	Yes	Yes
Westbound Through Lane	1,120	475[2]	257	Yes	Yes
I-215 SB Ramps / Harley Knox Boulevard:					
Southbound Through Lane	1,109	300[2]	298[2]	Yes	Yes
Southbound Right Turn Lane	265	34	53	Yes	Yes
Eastbound Through Lane	836	84	63	Yes	Yes
Eastbound Right Turn Lane	836	17	8	Yes	Yes
Westbound Left Turn Lane	95	***179***[2]	***227***[2]	***No***	***No***
Westbound Through Lane	280	30	19	Yes	Yes
I-215 NB Ramps / Harley Knox Boulevard					
Northbound Through Lane	929	50	15	Yes	Yes
Northbound Right Turn Lane	215	56	46	Yes	Yes
Eastbound Left Turn Lane	75	***154***	***155***	***No***	***No***
Eastbound Through Lane	280	89	81	Yes	Yes
Westbound Through Lane	594	97	102	Yes	Yes
Westbound Right Turn Lane	594	45	49	Yes	Yes

1: Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable. ***Bold and italics*** indicate unacceptable stacking distance.
2: 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
3: Volume for 95th percentile queue is metered by upstream signal.
Source: Urban Crossroads, Inc., 2011e, Table 5-3.

Table 4.11-27 Existing Plus Project (E+P) I-215 Freeway Ramp Junction Merge/Diverge Analysis

I-215 RAMP	LANES ON FREEWAY	AM PEAK HOUR		PM PEAK HOUR	
		DENSITY[2]	LOS	DENSITY[2]	LOS
Southbound:					
Off-Ramp at Cactus Avenue	4	16.0	B	22.3	C
Loop Off-Ramp at Cactus Avenue - Upstream	4	17.9	B	25.1	C
Loop Off-Ramp at Cactus Avenue - Downstream	4	17.9	B	25.1	C
On-Ramp at Cactus Avenue	3	19.1	B	29.6	D
Off-Ramp at Harley Knox Boulevard	3	22.3	C	29.5	D
On-Ramp at Harley Knox Boulevard	3	18.4	B	24.6	C
Northbound:					
On-Ramp at Cactus Avenue	3	29.5	D	28.9	D
Loop On-Ramp at Cactus Avenue - Downstream	3	24.6	C	21.6	C
Loop On-Ramp at Cactus Avenue - Upstream	3	24.6	C	21.6	C
Off-Ramp at Cactus Avenue	3	32.5	D	26.4	C
On-Ramp at Harley Knox Boulevard.	2	21.8	C	18.4	B
Off-Ramp at Harley Knox Boulevard	2	23.0	C	17.9	B

1: Merge/Diverge analysis has been conducted twice where nearby ramps exist both upstream and downstream.
2: Density is measured by passenger cars per mile per lane (pc/mi/ln).
Source: Urban Crossroads, Inc., 2011e, Table 5-5.

Table 4.11-28 Opening Year (2016) Conditions Basic Freeway Segment Analysis

I-215 FREEWAY MAINLINE SEGMENT	LANES[1]	OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)				PROJECT-RELATED IMPACT?	
		DENSITY[2]		LOS		DENSITY[2]		LOS			
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Southbound:											
N of Cactus	4	16.0	15.6	B	B	16.5	24.3	B	C	No	No
S of Cactus	3	20.8	36.2	C	E	20.8	36.3	C	E	No	No
N of Harley Knox	3	18.4	27.1	C	D	18.6	27.1	C	D	No	No
S of Harley Knox	3	17.1	24.2	B	C	17.3	24.8	B	C	No	No
Northbound:											
N of Cactus	4	21.9	20.1	C	C	22.0	20.6	C	C	No	No
S of Cactus	3	34.4	25.0	D	C	34.5	25.0	D	C	No	No
N of Harley Knox	3	21.1	16.7	C	B	21.1	16.8	C	B	No	No
S of Harley Knox	3	19.8	14.9	C	B	20.4	15.1	C	B	No	No

1: Number of lanes in the specified direction; based on existing conditions.
2: Density is measured by passenger cars per mile per lane (pc/mi/ln).
Source: Urban Crossroads, Inc., 2011e, Table 6-4.

Table 4.11-29 Opening Year (2016) Conditions Stacking Length Summary at I-215/ Cactus Avenue and I-215/Harley Knox Boulevard

FREEWAY RAMP INTERSECTION LOCATION / MOVEMENT	STACKING DISTANCE (FEET)	OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
		95TH PERCENTILE STACKING DISTANCE REQUIRED (FEET)		ACCEPTABLE?[1]		95TH PERCENTILE STACKING DISTANCE REQUIRED (FEET)		ACCEPTABLE?[1]	
		AM	PM	AM	PM	AM	PM	AM	PM
I-215 SB Ramps / Cactus Avenue:									
Southbound Right Turn Lane	1,115	33	0	Yes	Yes	33	0	Yes	Yes
Eastbound Through Lane	675	82	120	Yes	Yes	82	120	Yes	Yes
Eastbound Right Turn Lane	675	28	40	Yes	Yes	28	40	Yes	Yes
Westbound Left Turn Lane	1,022	432	774[2]	Yes	Yes	434	790[2]	Yes	Yes
Westbound Through Lane	1,182	60	7	Yes	Yes	60	7	Yes	Yes
I-215 NB Ramps / Cactus Avenue:									
Northbound Left Turn Lane	145	***160***	31	***No***	Yes	***160***	31	***No***	Yes
Northbound Through Lane	1,650	146	24	Yes	Yes	71	24	Yes	Yes
Southbound Left Turn Lane	115	32	45	Yes	Yes	14	45	Yes	Yes
Southbound Right Turn Lane	560	0	25	Yes	Yes	24	26	Yes	Yes
Eastbound Left Turn Lane	190	31	15	Yes	Yes	18	17	Yes	Yes
Eastbound Through Lane	1,182	378	102	Yes	Yes	133	106	Yes	Yes
Westbound Through Lane	1,120	538[2]	276	Yes	Yes	554[2]	310	Yes	Yes
I-215 SB Ramps / Harley Knox Boulevard:									
Southbound Through Lane	1,109	330[2]	337[2]	Yes	Yes	341	342[2]	Yes	Yes
Southbound Right Turn Lane	265	36	56	Yes	Yes	36	56	Yes	Yes
Eastbound Through Lane	836	92	68	Yes	Yes	92	68	Yes	Yes
Eastbound Right Turn Lane	836	18	9	Yes	Yes	18	9	Yes	Yes
Westbound Left Turn Lane	95	***139***[2]	***108***	***No***	***No***	***195***[2]	***239***[2]	***No***	***No***
Westbound Through Lane	280	33	21	Yes	Yes	33	21	Yes	Yes

FREEWAY RAMP INTERSECTION LOCATION / MOVEMENT	STACKING DISTANCE (FEET)	OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
		95TH PERCENTILE STACKING DISTANCE REQUIRED (FEET)		ACCEPTABLE?[1]		95TH PERCENTILE STACKING DISTANCE REQUIRED (FEET)		ACCEPTABLE?[1]	
		AM	PM	AM	PM	AM	PM	AM	PM
I-215 NB Ramps / Harley Knox Boulevard:									
Northbound Through Lane	929	54	17	Yes	Yes	54	17	Yes	Yes
Northbound Right Turn Lane	215	46	43	Yes	Yes	58	47	Yes	Yes
Eastbound Left Turn Lane	75	***167***	***166***	***No***	***No***	***167***	***166***	***No***	***No***
Eastbound Through Lane	280	97	90	Yes	Yes	98	90	Yes	Yes
Westbound Through Lane	594	98	82	Yes	Yes	108	111	Yes	Yes
Westbound Right Turn Lane	594	48	51	Yes	Yes	48	51	Yes	Yes

1: Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable. ***Bold and italics*** indicate unacceptable stacking distance.
2: 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
3: Volume for 95th percentile queue is metered by upstream signal.
Source: Urban Crossroads, Inc., 2011e, Table 6-3.

Table 4.11-30 Opening Year (2016) I-215 Freeway Ramp Junction Merge/Diverge Analysis

I-215 RAMP	LANES ON FREEWAY	OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
		AM PEAK HOUR		PM PEAK HOUR		AM PEAK HOUR		PM PEAK HOUR	
		DENSITY[2]	LOS	DENSITY[2]	LOS	DENSITY[2]	LOS	DENSITY[2]	LOS
Southbound:									
Off-Ramp at Cactus Avenue	4	17.1	B	24.4	C	17.6	B	24.6	C
Loop Off-Ramp at Cactus Avenue - Upstream	4	18.3	B	27.0	C	19.4	B	27.5	C
Loop Off-Ramp at Cactus Avenue - Downstream	4	18.3	B	27.0	C	19.4	B	27.5	C
On-Ramp at Cactus Avenue	3	21.0	C	32.2	D	21.0	C	32.3	D
Off-Ramp at Harley Knox Boulevard	3	23.9	C	31.7	D	24.1	C	31.7	D
On-Ramp at Harley Knox Boulevard	3	19.6	B	25.8	C	19.9	B	26.7	C
Northbound:									
On-Ramp at Cactus Avenue	3	31.7	D	30.5	D	32.1	D	31.4	D
Loop On-Ramp at Cactus Avenue - Downstream	3	26.8	C	23.5	C	26.8	C	23.5	C
Loop On-Ramp at Cactus Avenue - Upstream	3	26.8	C	23.5	C	26.8	C	23.5	C
Off-Ramp at Cactus Avenue	3	34.9	D	28.5	D	34.9	D	28.5	D
On-Ramp at Harley Knox Boulevard.	2	23.7	C	19.9	B	23.7	C	20.0	B
Off-Ramp at Harley Knox Boulevard	2	24.0	C	19.1	B	24.8	C	19.4	B

1: Merge/Diverge analysis has been conducted twice where nearby ramps exist both upstream and downstream.
2: Density is measured by passenger cars per mile per lane (pc/mi/ln).
Source: Urban Crossroads, Inc., 2011e, Table 6-5.

Table 4.11-31 Horizon Year (2016) Conditions Basic Freeway Segment Analysis

I-215 FREEWAY MAINLINE SEGMENT	LANES[1]	HORIZON YEAR (2016) WITHOUT PROJECT (E+A+C)				HORIZON YEAR (2016) WITH PROJECT (E+A+C+P)			
		DENSITY[2]		LOS[3]		DENSITY[2]		LOS[3]	
		AM	PM	AM	PM	AM	PM	AM	PM
Southbound:									
North of Cactus	4	26.3	30.4	D	D	26.8	30.8	D	D
South of Cactus	3	31.7	--	D	***F***	31.7	--	D	***F***
North of Harley Knox	3	35.0	--	D	***F***	35.1	--	E	***F***
South of Harley Knox	3	23.7	--	C	***F***	24.0	--	C	***F***
Northbound:									
North of Cactus	4	26.7	32.9	D	D	27.1	33.8	D	D
South of Cactus	3	--	--	***F***	***F***	--	--	***F***	***F***
North of Harley Knox	3	40.3	35.0	E	D	40.4	35.1	E	E
South of Harley Knox	3	43.5	22.6	E	C	44.8	22.9	E	C

1: Number of lanes in the specified direction; based on existing conditions.
2: Density is measured by passenger cars per mile per lane (pc/mi/ln).
3: ***Bold and italics*** indicate unacceptable LOS.
Source: Urban Crossroads, Inc., 2011e, Table 7-4.

Table 4.11-32 Horizon Year (2016) Conditions Stacking Length Summary at I-215/Cactus Avenue and I-215/Harley Knox Boulevard

FREEWAY RAMP INTERSECTION LOCATION / MOVEMENT	STACKING DISTANCE (FEET)	HORIZON YEAR (2016) WITHOUT PROJECT (E+A+C)				HORIZON YEAR (2016) WITH PROJECT (E+A+C+P)			
		95TH PERCENTILE STACKING DISTANCE REQUIRED (FEET)		ACCEPTABLE?[1]		95TH PERCENTILE STACKING DISTANCE REQUIRED (FEET)		ACCEPTABLE?[1]	
		AM	PM	AM	PM	AM	PM	AM	PM
I-215 SB Ramps / Cactus Avenue:									
Southbound Right Turn Lane	1,115	440	0	Yes	Yes	440	0	Yes	Yes
Eastbound Through Lane	675	180	***912***[2]	Yes	***No***	180	***912***[2]	Yes	***No***
Eastbound Right Turn Lane	675	48	538[2]	Yes	Yes	48	538[2]	Yes	Yes
Westbound Left Turn Lane	1,022	936[2]	***1,467***[2]	Yes	***No***	939[2]	***1,478***[2]	Yes	**No**
Westbound Through Lane	1,182	1,107	27[2]	Yes	Yes	1,107[2]	27	Yes	Yes
I-215 NB Ramps / Cactus Avenue:									
Northbound Left Turn Lane	515	***873***[2]	120	***No***	Yes	***873***[2]	120	***No***	Yes
Northbound Through Lane	1,650	112	58	Yes	Yes	112	58	Yes	Yes
Southbound Left Turn Lane	165	18	46	Yes	Yes	18	46	Yes	Yes
Southbound Right Turn Lane	560	37	45	Yes	Yes	37	45	Yes	Yes
Eastbound Left Turn Lane	190	29	43[2]	Yes	Yes	29	43[2]	Yes	Yes
Eastbound Through Lane	1,182	217	809[2]	Yes	Yes	250	827[2]	Yes	Yes
Westbound Through Lane	1,120	1064[2]	965[2]	Yes	Yes	1,083[2]	1,018[2]	Yes	Yes
I-215 SB Ramps / Harley Knox Boulevard:									
Southbound Through Lane	1,109	***1,525***[2]	863[2]	***No***	Yes	***1,533***[2]	868[2]	***No***	Yes
Southbound Right Turn Lane	265	275[2]	115	***No***	Yes	279[2]	116	***No***	Yes
Eastbound Through Lane	836	124	157	Yes	Yes	124	157	Yes	Yes
Eastbound Right Turn Lane	836	30	38	Yes	Yes	30	38	Yes	Yes
Westbound Left Turn Lane	280	***432***[2]	***926***[2]	***No***	***No***	***473***[2]	***1,018***[2]	***No***	***No***
Westbound Through Lane	280	62	33	Yes	Yes	62	33	Yes	Yes

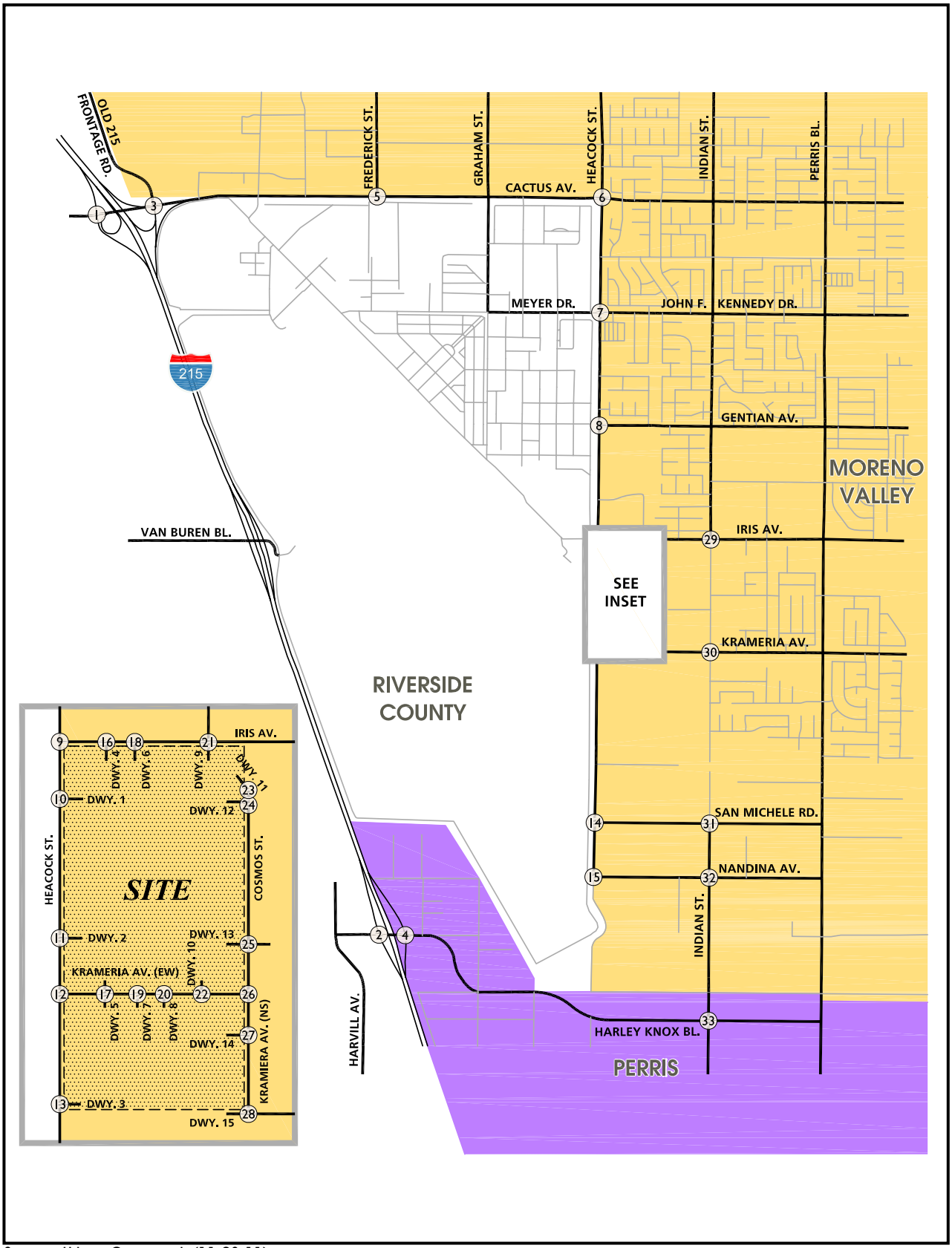
FREEWAY RAMP INTERSECTION LOCATION / MOVEMENT	STACKING DISTANCE (FEET)	HORIZON YEAR (2016) WITHOUT PROJECT (E+A+C)				HORIZON YEAR (2016) WITH PROJECT (E+A+C+P)			
		95TH PERCENTILE STACKING DISTANCE REQUIRED (FEET)		ACCEPTABLE?[1]		95TH PERCENTILE STACKING DISTANCE REQUIRED (FEET)		ACCEPTABLE?[1]	
		AM	PM	AM	PM	AM	PM	AM	PM
I-215 NB Ramps / Harley Knox Boulevard:									
Northbound Through Lane	929	246[2]	85	Yes	Yes	246[2]	85	Yes	Yes
Northbound Right Turn Lane	515	***996***[2]	314[2]	***No***	Yes	***1,099***[2]	369[2]	***No***	Yes
Eastbound Left Turn Lane	280	***331***[2]	***615***[2]	***No***	***No***	***331***[2]	***615***[2]	***No***	***No***
Eastbound Through Lane	280	***662***[2]	202	***No***	Yes	666[2]	203	***No***	Yes
Westbound Through Lane	594	181	441[2]	Yes	Yes	195	504[2]	Yes	Yes
Westbound Right Turn Lane	594	130	***1,358***[2]	Yes	***No***	131	1,368[2]	Yes	***No***

1: Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable. ***Bold and italics*** indicate unacceptable stacking distance.
2: 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
3: Volume for 95th percentile queue is metered by upstream signal.
Source: Urban Crossroads, Inc., 2011e, Table 7-3.

Table 4.11-33 Horizon Year (2016) I-215 Freeway Ramp Junction Merge/Diverge Analysis

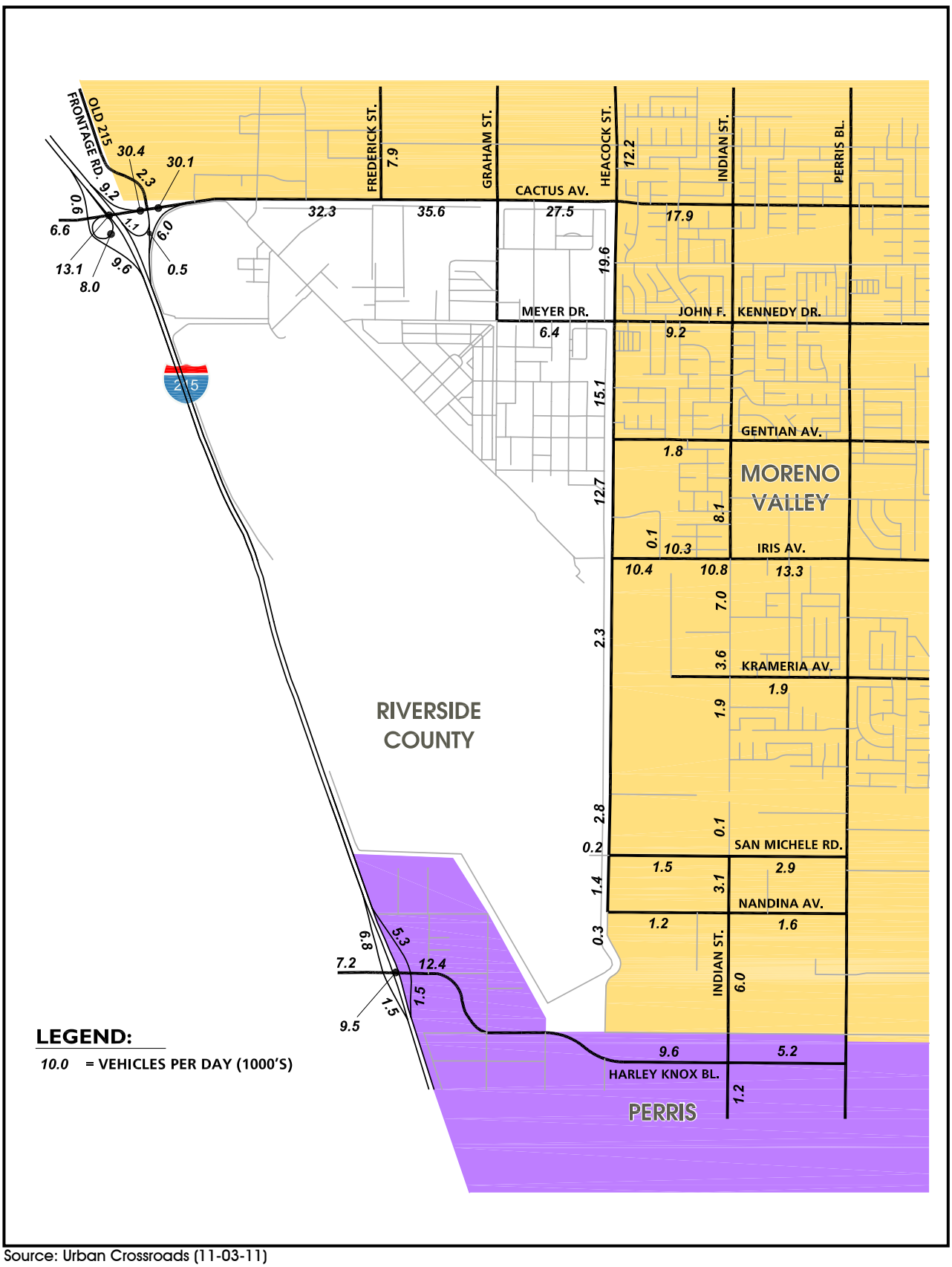
I-215 RAMP	LANES ON FREEWAY	OPENING YEAR (2016) WITHOUT PROJECT (E+A)				OPENING YEAR (2016) WITH PROJECT (E+A+P)			
		AM PEAK HOUR		PM PEAK HOUR		AM PEAK HOUR		PM PEAK HOUR	
		DENSITY[2]	LOS[3]	DENSITY[2]	LOS[3]	DENSITY[2]	LOS[3]	DENSITY[2]	LOS[3]
Southbound:									
Off-Ramp at Cactus Avenue	4	29.1	D	30.1	D	29.6	D	30.3	D
Loop Off-Ramp at Cactus Avenue - Upstream	4	26.6	C	24.7	C	27.8	C	25.3	C
Loop Off-Ramp at Cactus Avenue - Downstream	4	26.6	C	25.1	C	27.8	C	25.3	C
On-Ramp at Cactus Avenue	3	32.1	D	***47.2***	***F***	32.1	D	***47.3***	***F***
Off-Ramp at Harley Knox Boulevard	3	***38.9***	***F***	***48.6***	***F***	***38.9***	***F***	***48.6***	***F***
On-Ramp at Harley Knox Boulevard	3	26.5	C	***43.8***	***F***	26.8	C	***44.6***	***F***
Northbound:									
On-Ramp at Cactus Avenue	3	37.5	E	***45.2***	***F***	37.9	E	***46.2***	***F***
Loop On-Ramp at Cactus Avenue - Downstream	3	32.2	D	36.6	E	32.2	D	36.6	E
Loop On-Ramp at Cactus Avenue - Upstream	3	31.6	D	36.2	E	31.6	D	36.2	E
Off-Ramp at Cactus Avenue	3	***50.5***	***F***	***42.1***	***F***	***50.9***	***F***	***42.1***	***F***
On-Ramp at Harley Knox Boulevard.	2	37.1	E	38.7	E	37.2	E	38.8	E
Off-Ramp at Harley Knox Boulevard	2	38.4	E	27.2	C	39.0	E	27.5	C

1: Merge/Diverge analysis has been conducted twice where nearby ramps exist both upstream and downstream.
2: Density is measured by passenger cars per mile per lane (pc/mi/ln).
3: ***Bold and italics*** indicate unacceptable LOS.
Source: Urban Crossroads, Inc., 2011e, Table 7-5.



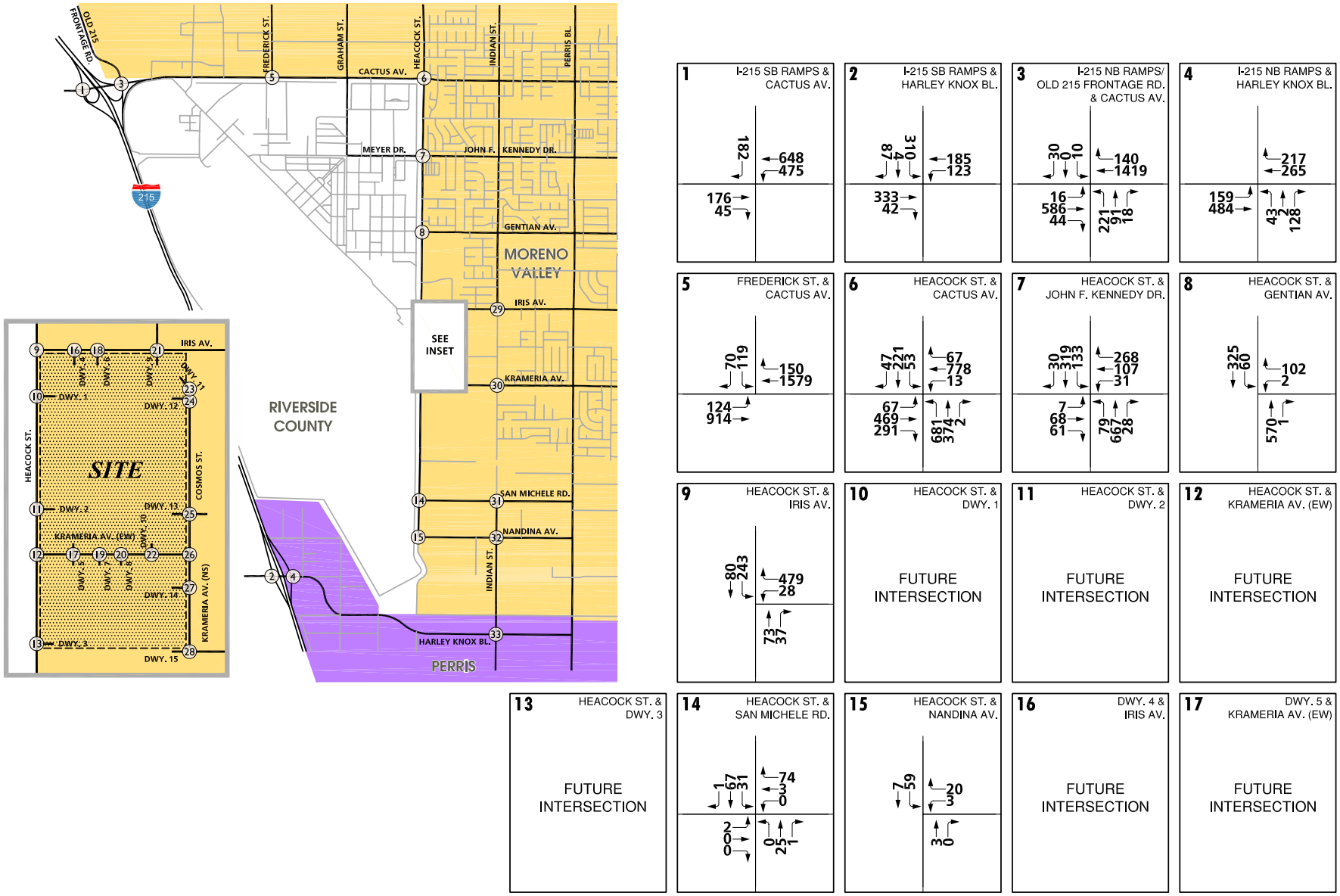
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-1
Project Study Area - Intersection Locations



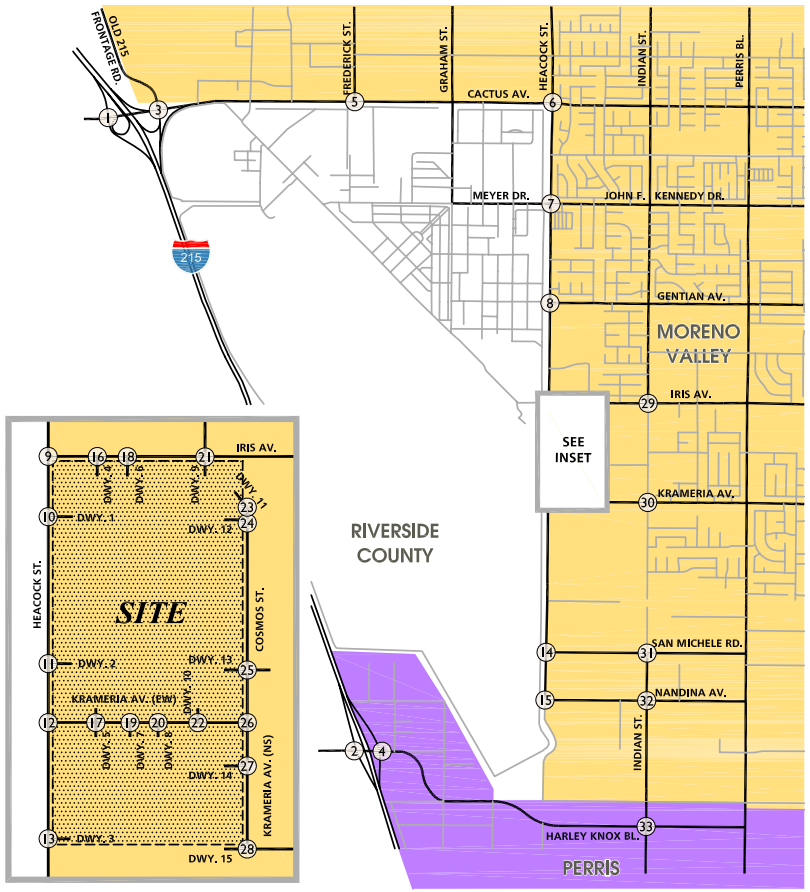
Source: Urban Crossroads (11-03-11)

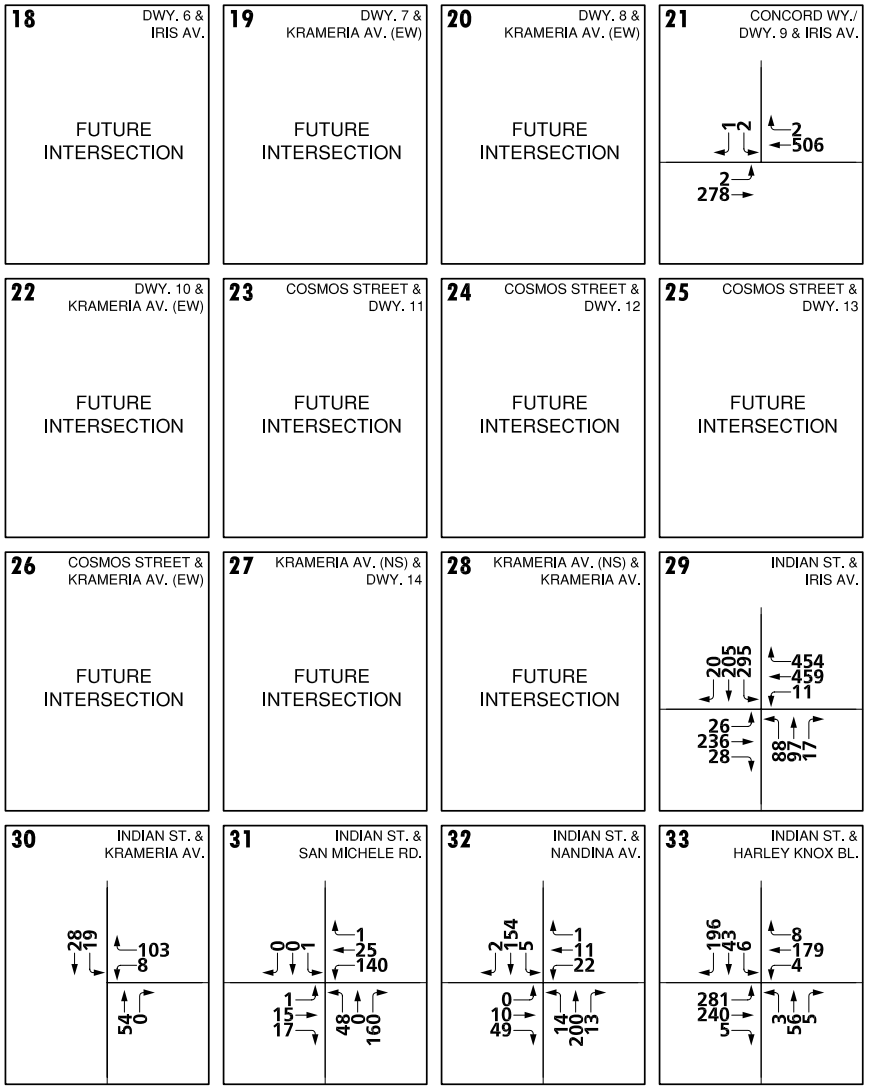
FIGURE 4.11-2
Existing (2011) Average Daily Traffic (ADT)



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-3A
Existing (2011) AM Peak Hour Intersection Volumes (1 of 2)



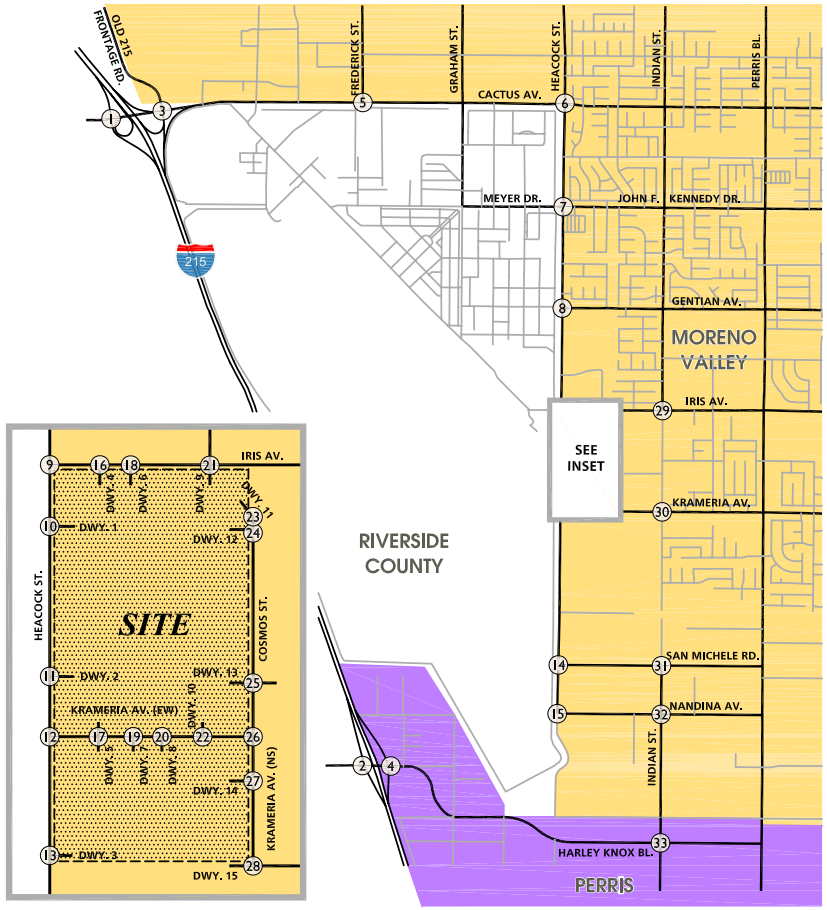


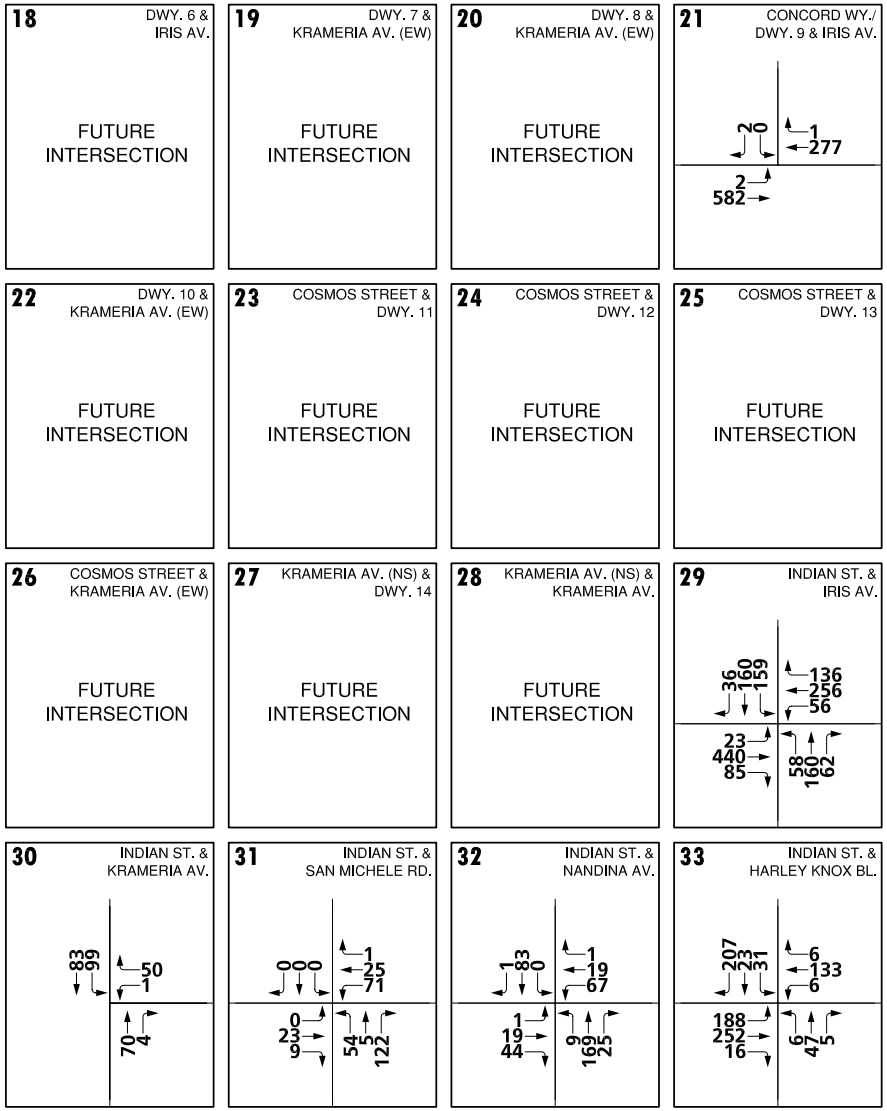
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-3B
Existing (2011) AM Peak Hour Intersection Volumes (2 of 2)

Source: Urban Crossroads (11-03-11)

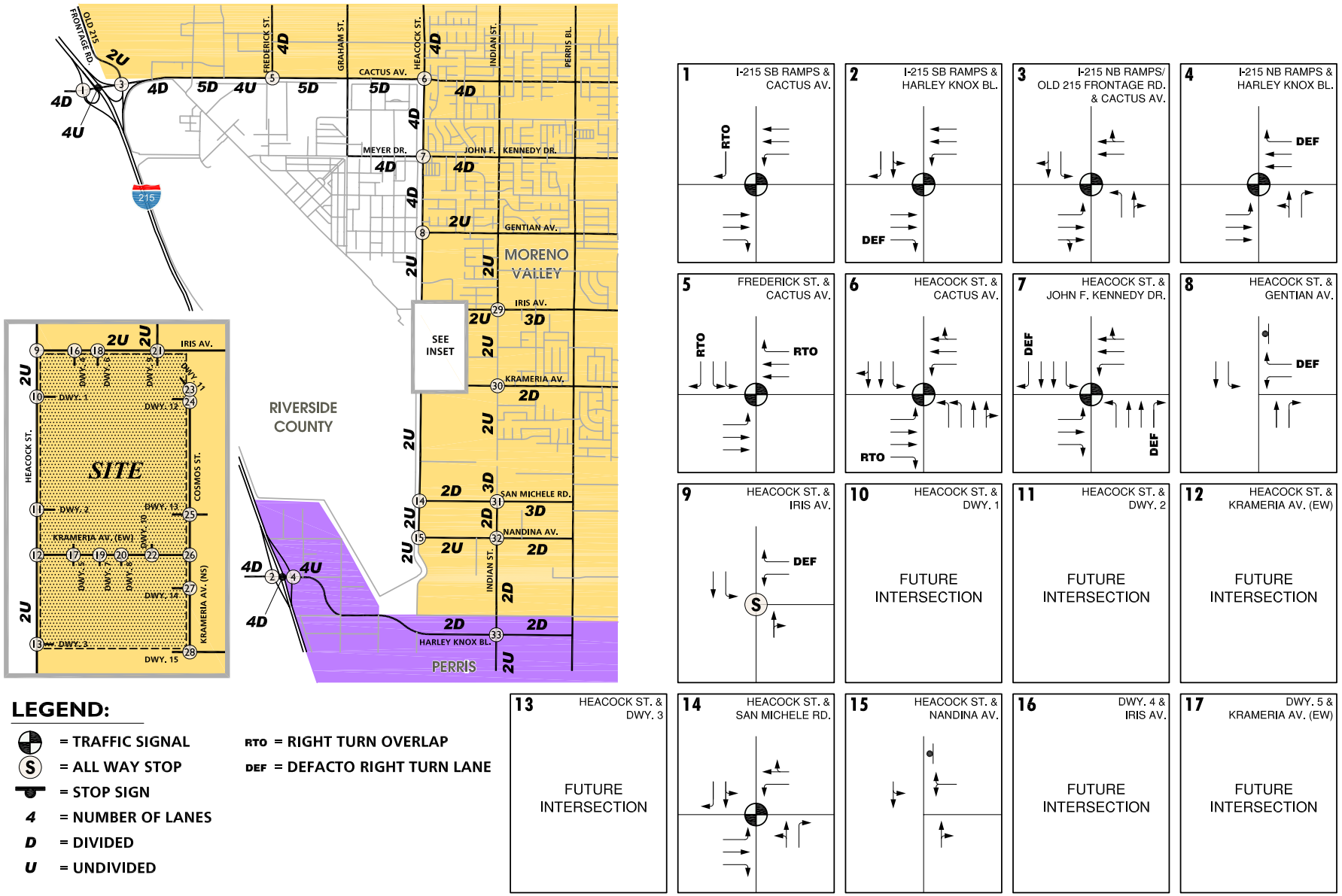
FIGURE 4.11-4A
Existing (2011) PM Peak Hour Intersection Volumes (1 of 2)





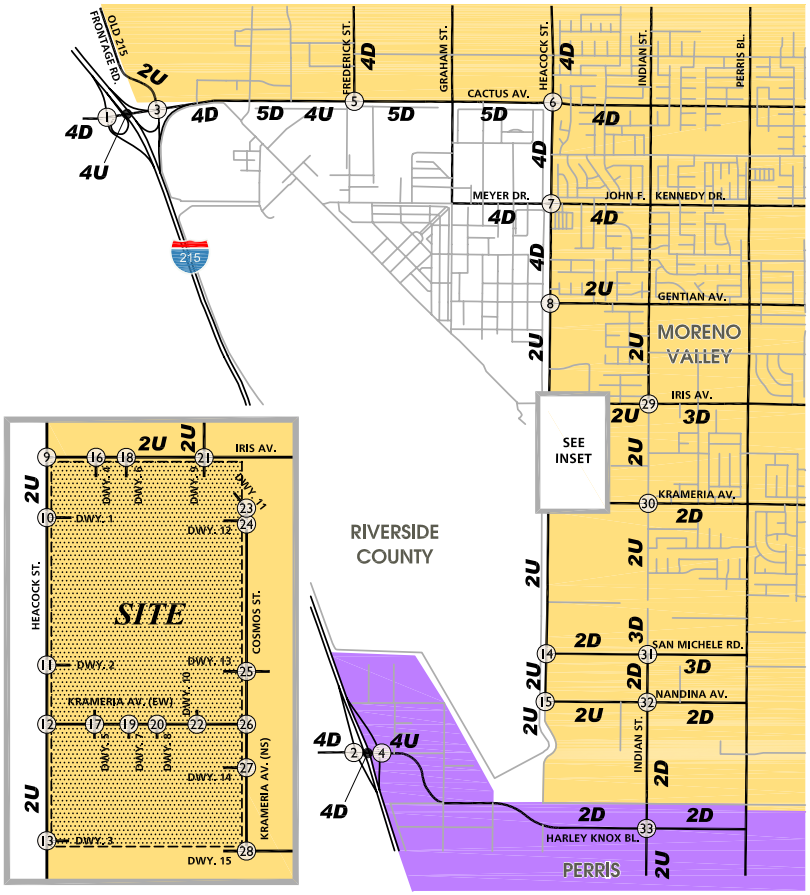
Source: Urban Crossroads (09-08-11)

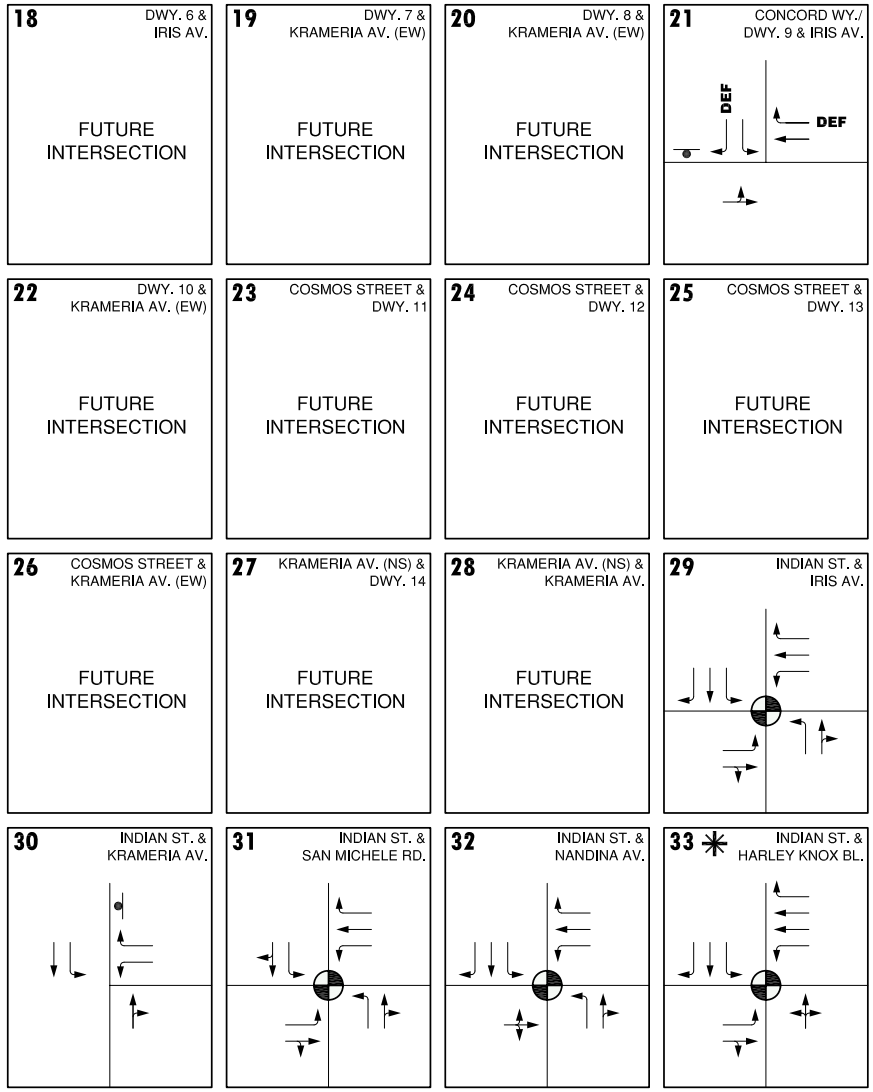
FIGURE 4.11-4B
Existing (2011) PM Peak Hour Intersection Volumes (2 of 2)



Source: Urban Crossroads (09-08-11)

FIGURE 4.11-5A
Existing (2011) Number of Through Lanes and Intersection Controls (1 of 2)





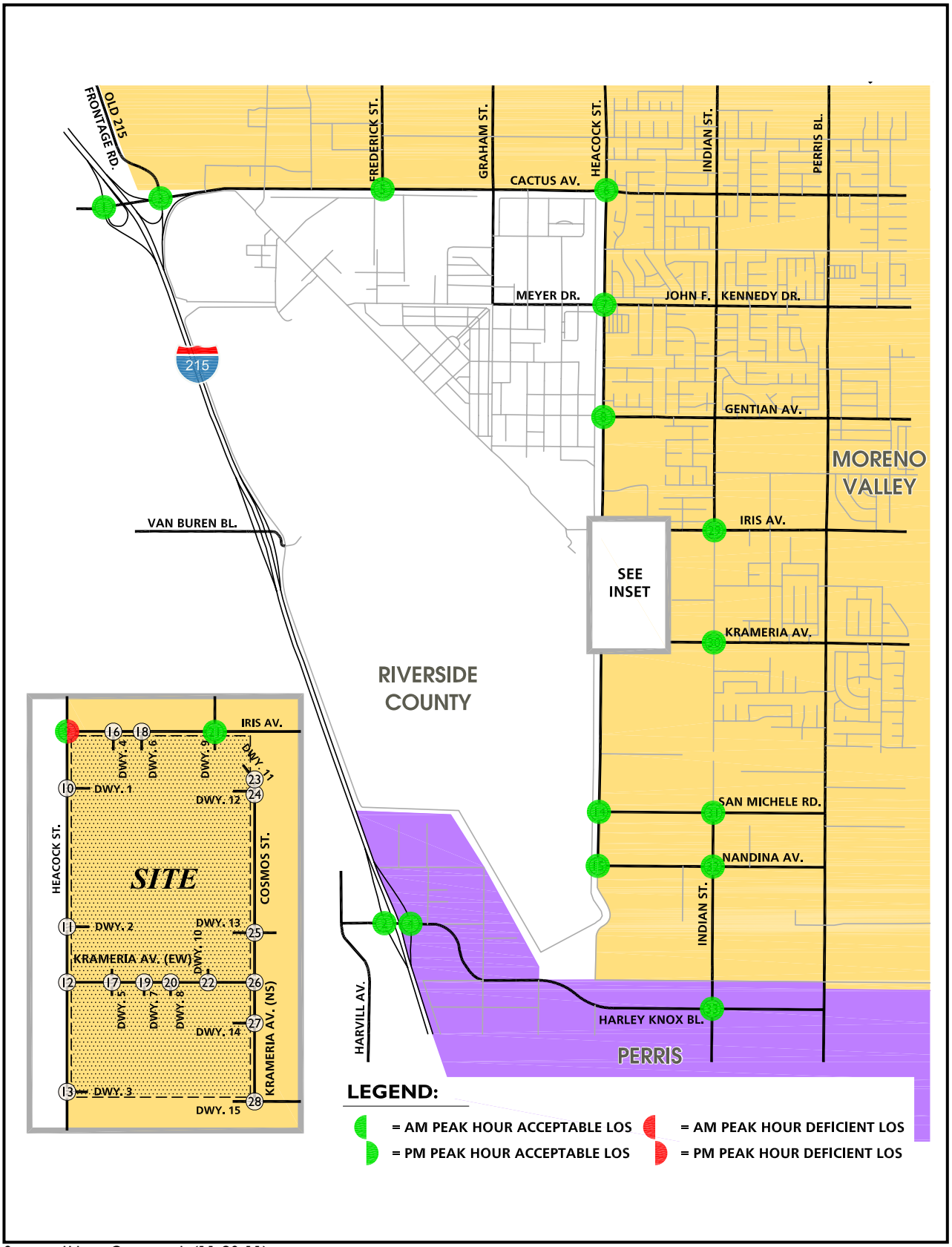
LEGEND:

- = TRAFFIC SIGNAL
- S = ALL WAY STOP
- = STOP SIGN
- *4* = NUMBER OF LANES
- *D* = DIVIDED
- *U* = UNDIVIDED
- DEF = DEFACTO RIGHT TURN LANE

✳ NOTE: SIGNAL IS INSTALLED BUT IS NOT FULLY OPERATIONAL WITH CONSTRUCTION ON THE WEST AND SOUTH LEGS OF THE INTERSECTION. THE SIGNAL HEADS ARE CURRENTLY FLASHING RED. AS SUCH, THE INTERSECTION HAS BEEN TREATED AS AN ALL-WAY STOP CONTROLLED INTERSECTION UNDER EXISTING 2011 CONDITIONS.

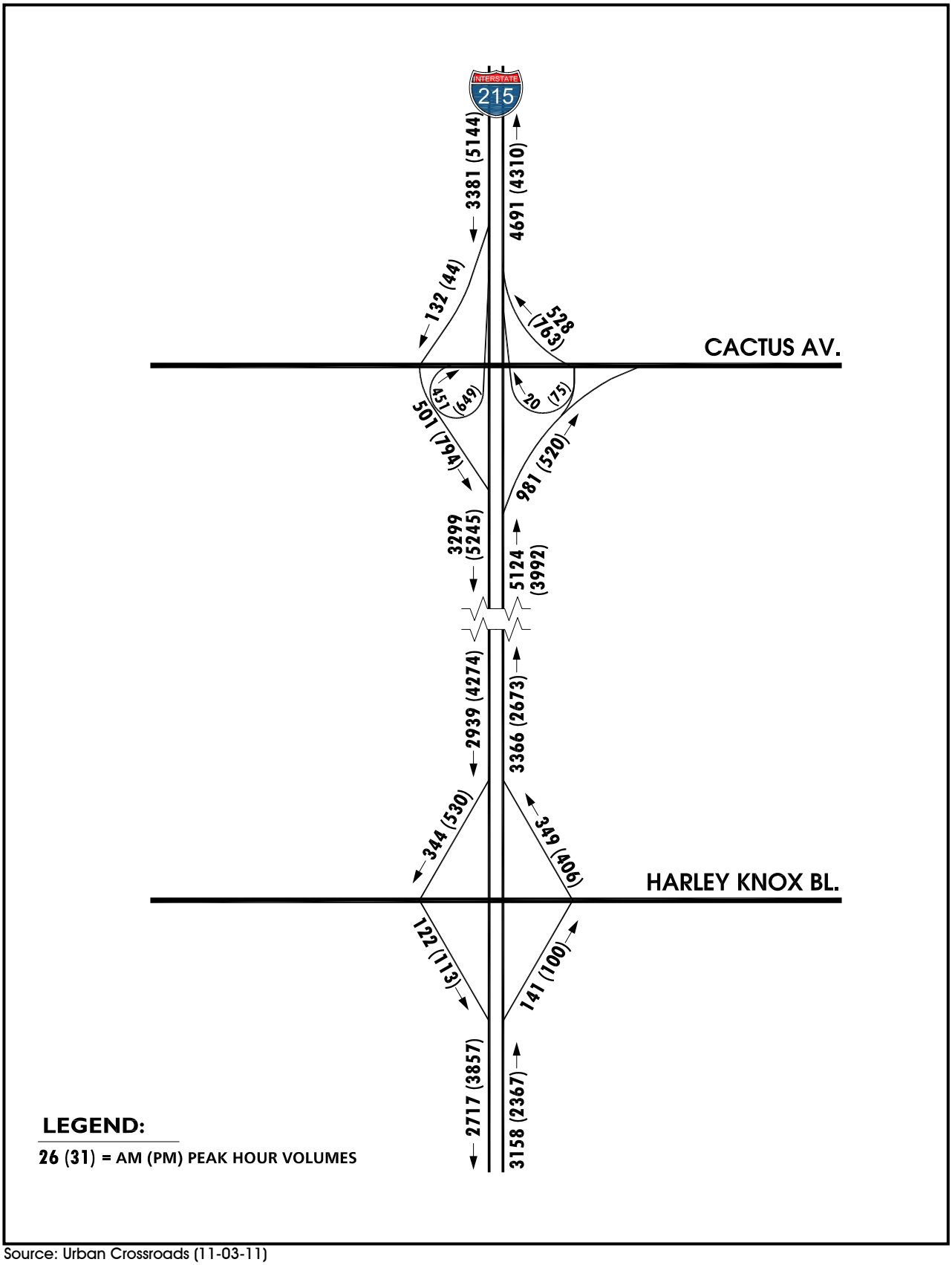
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-5B
Existing (2011) Number of Through Lanes and Intersection Controls (2 of 2)



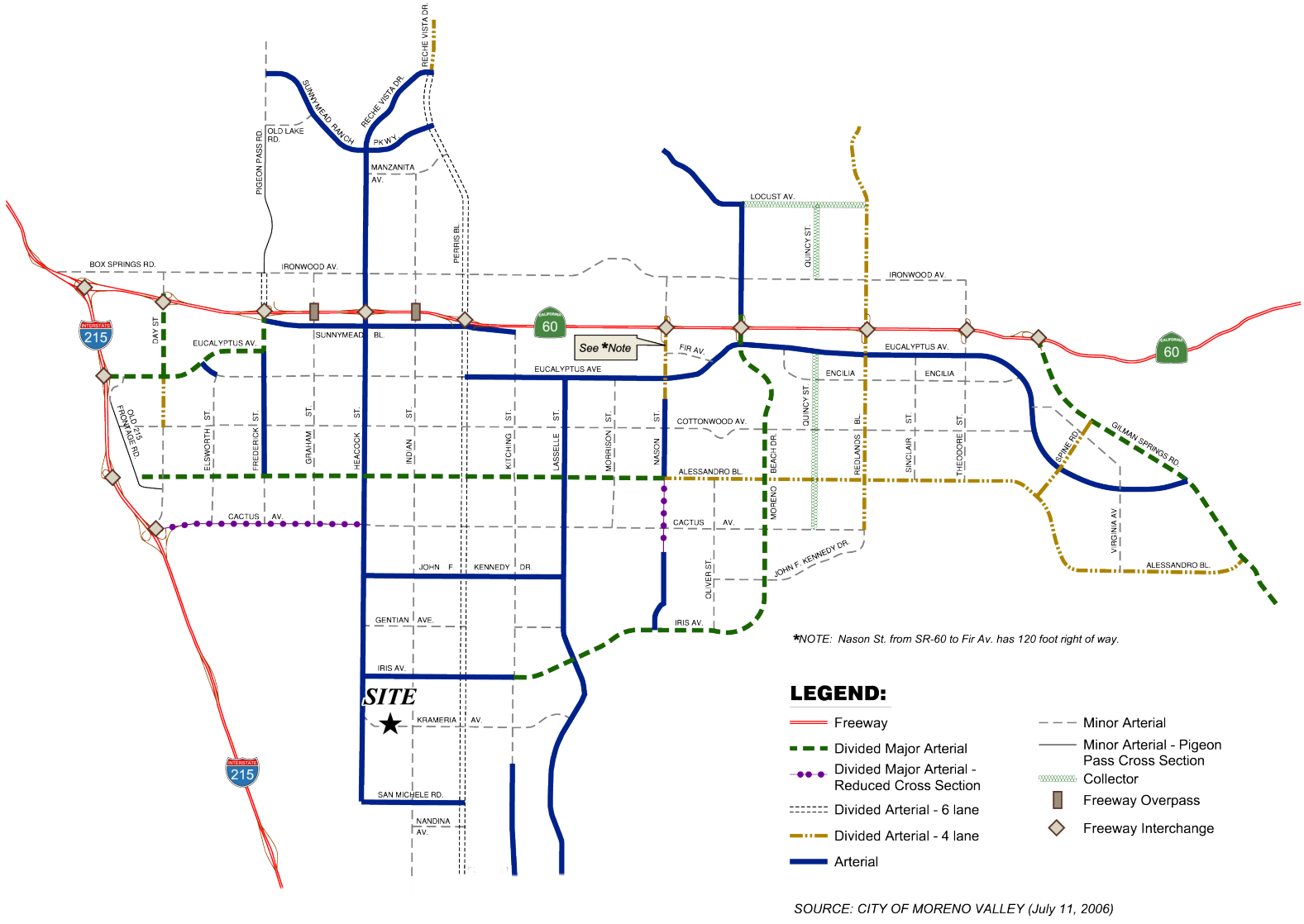
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-6
Existing (2011) Peak Hour Intersection Level of Service (LOS)



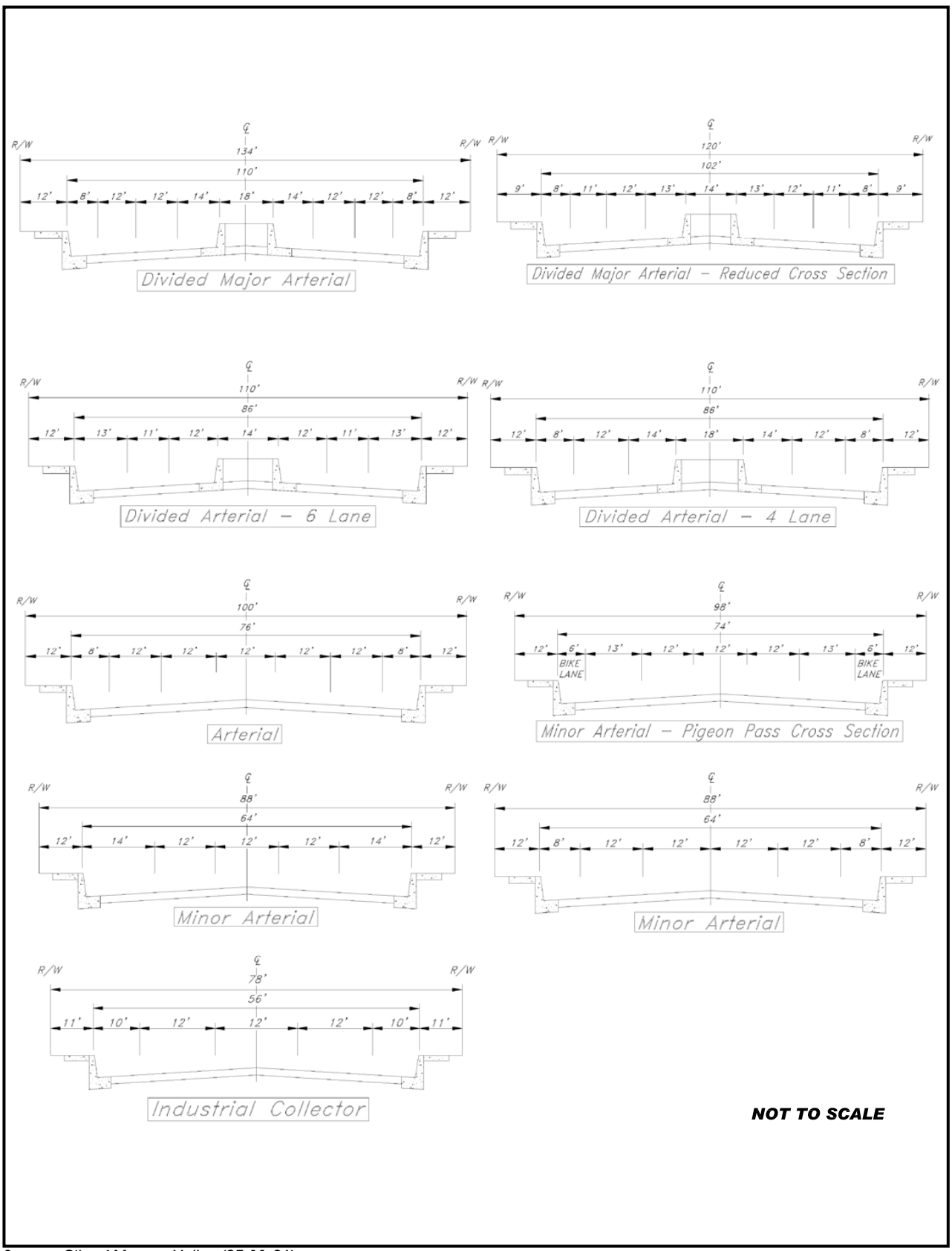
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-7
Existing (2011) I-215 Freeway Mainline Volumes



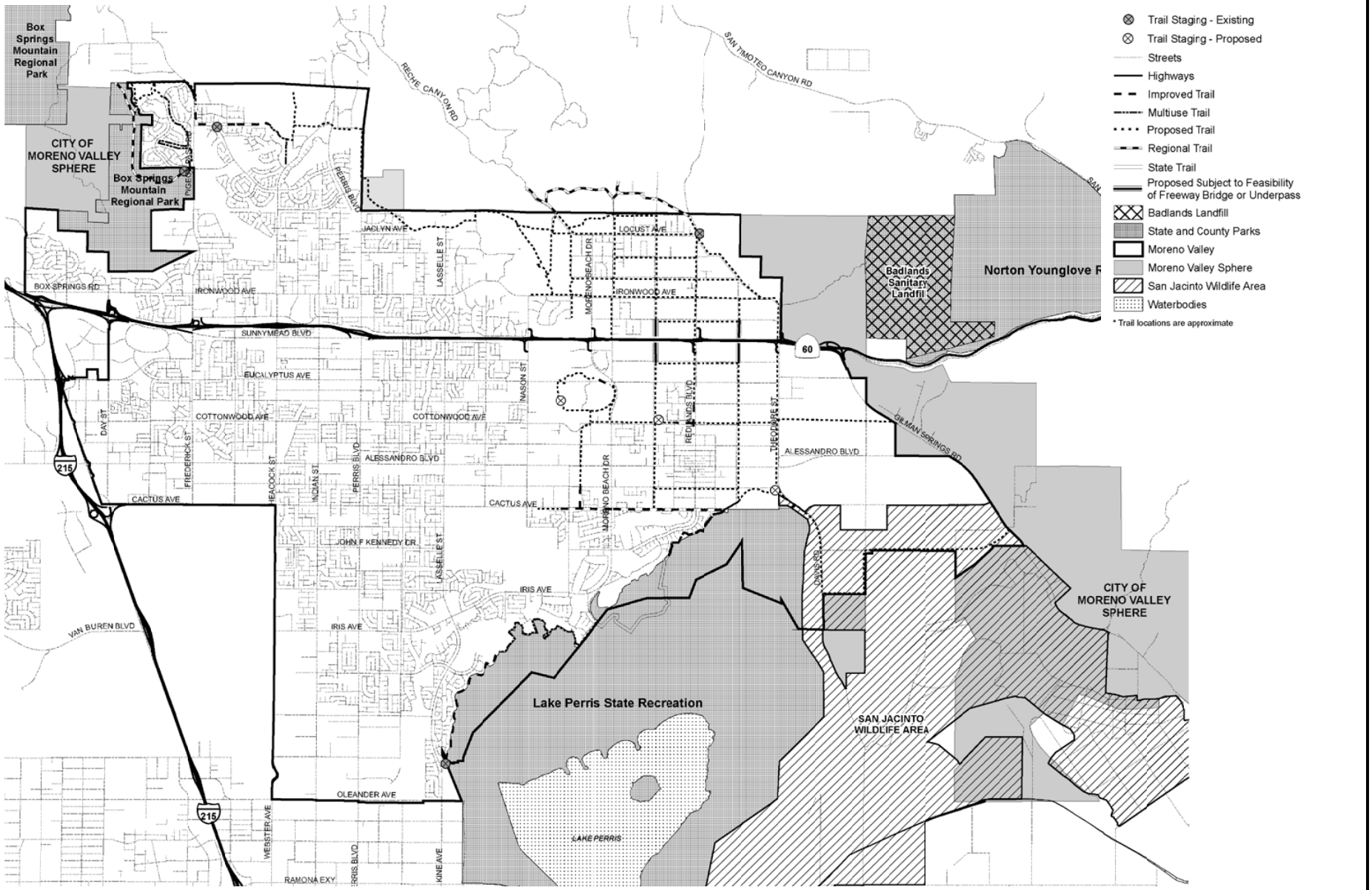
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-8
City of Moreno Valley General Plan Circulation Element



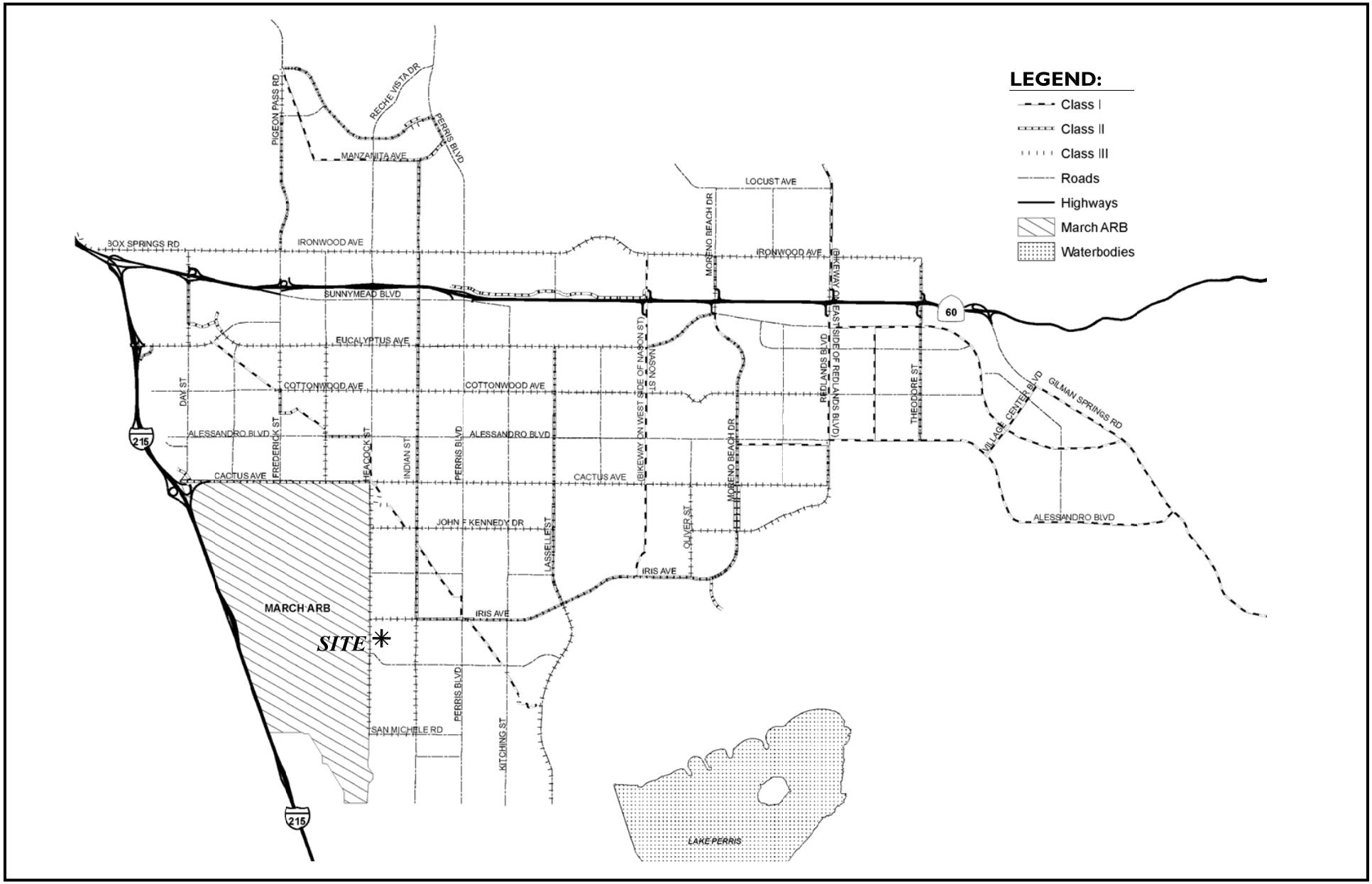
Source: City of Moreno Valley (07-11-06)

FIGURE 4.11-9
City of Moreno Valley General Plan Roadway Cross-Sections



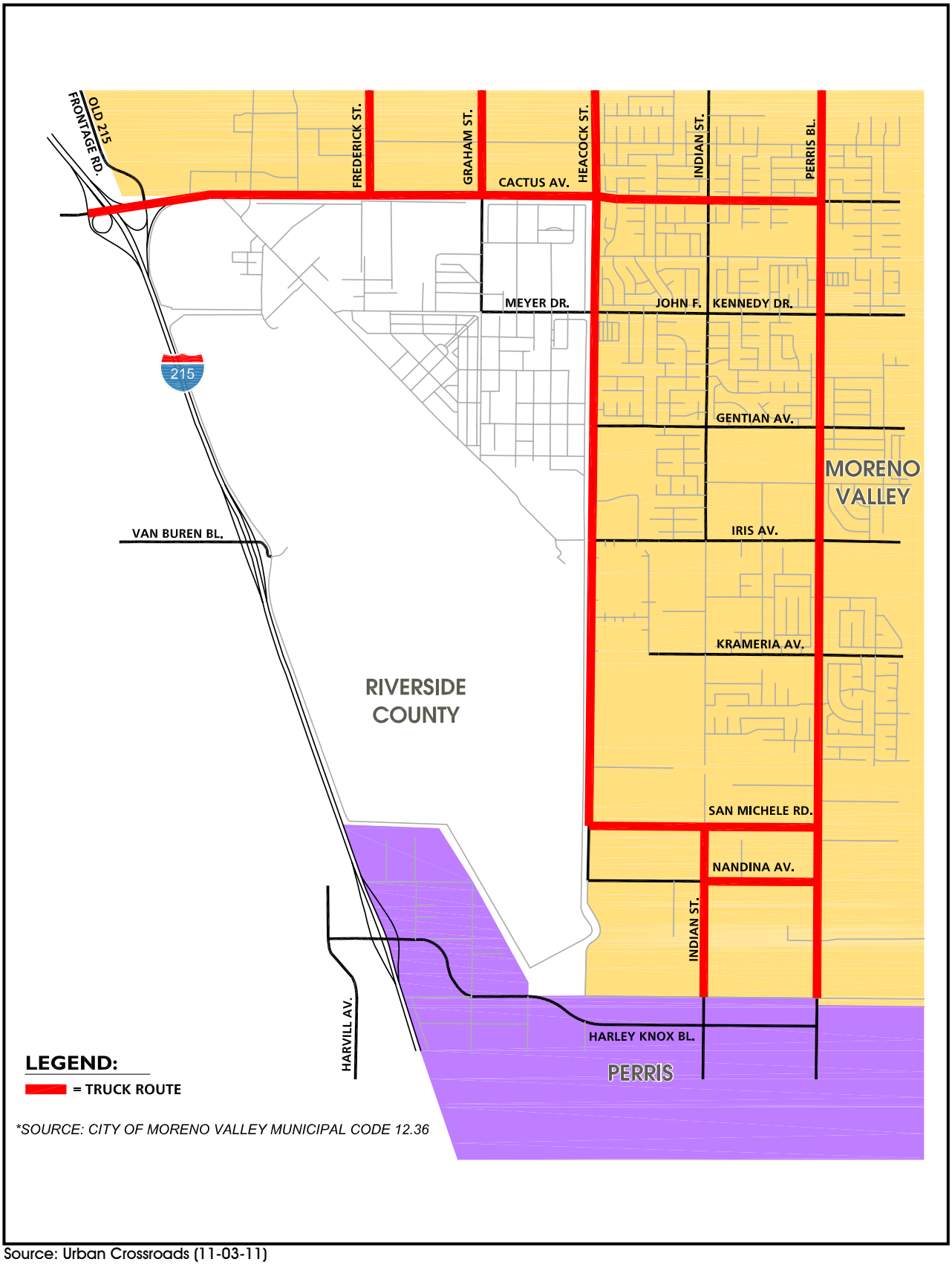
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-10
City of Moreno Valley Master Plan of Trails



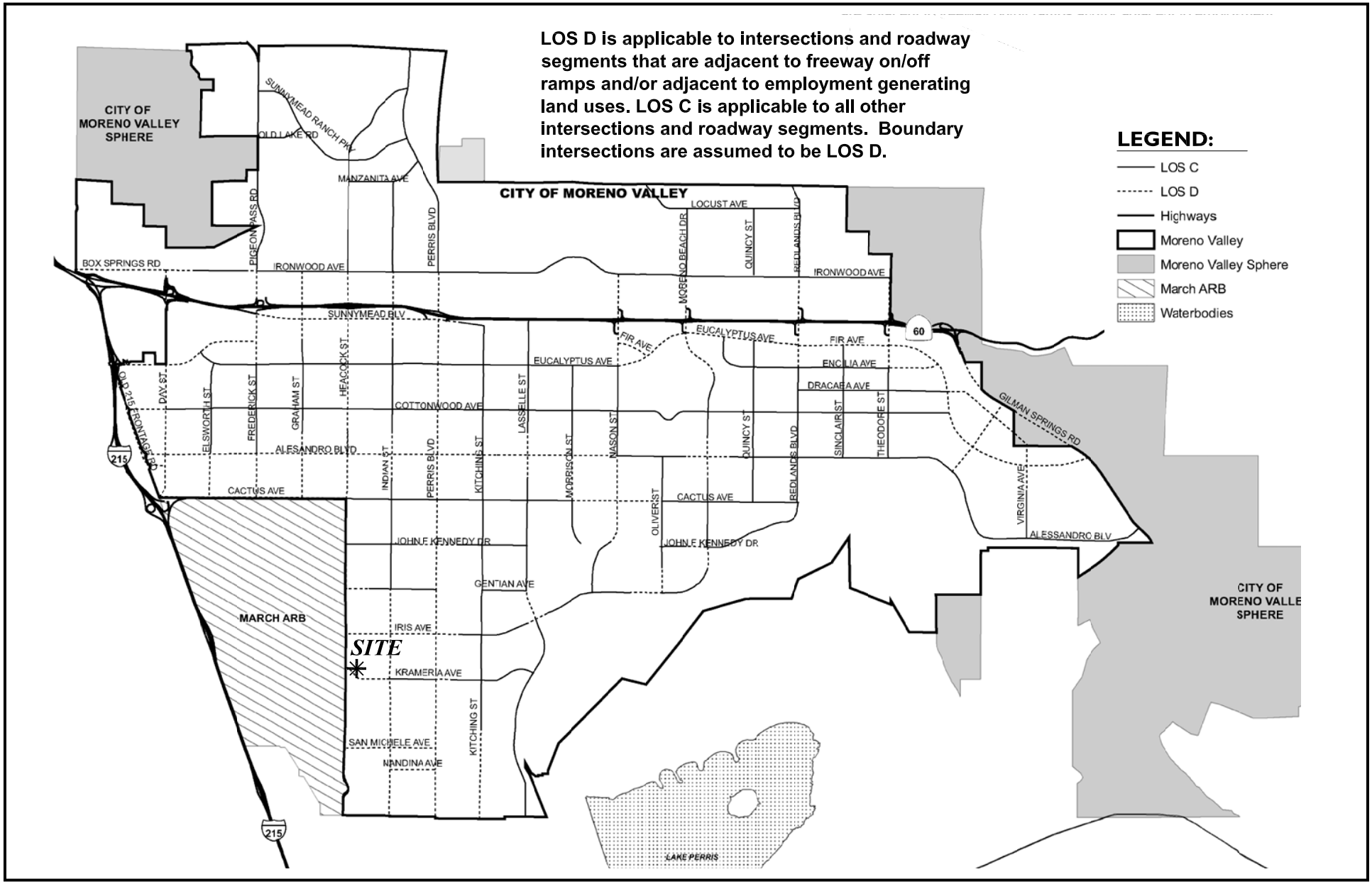
Source: Urban Crossroads (09-08-11)

FIGURE 4.11-11
City of Moreno Valley Bikeway Plan



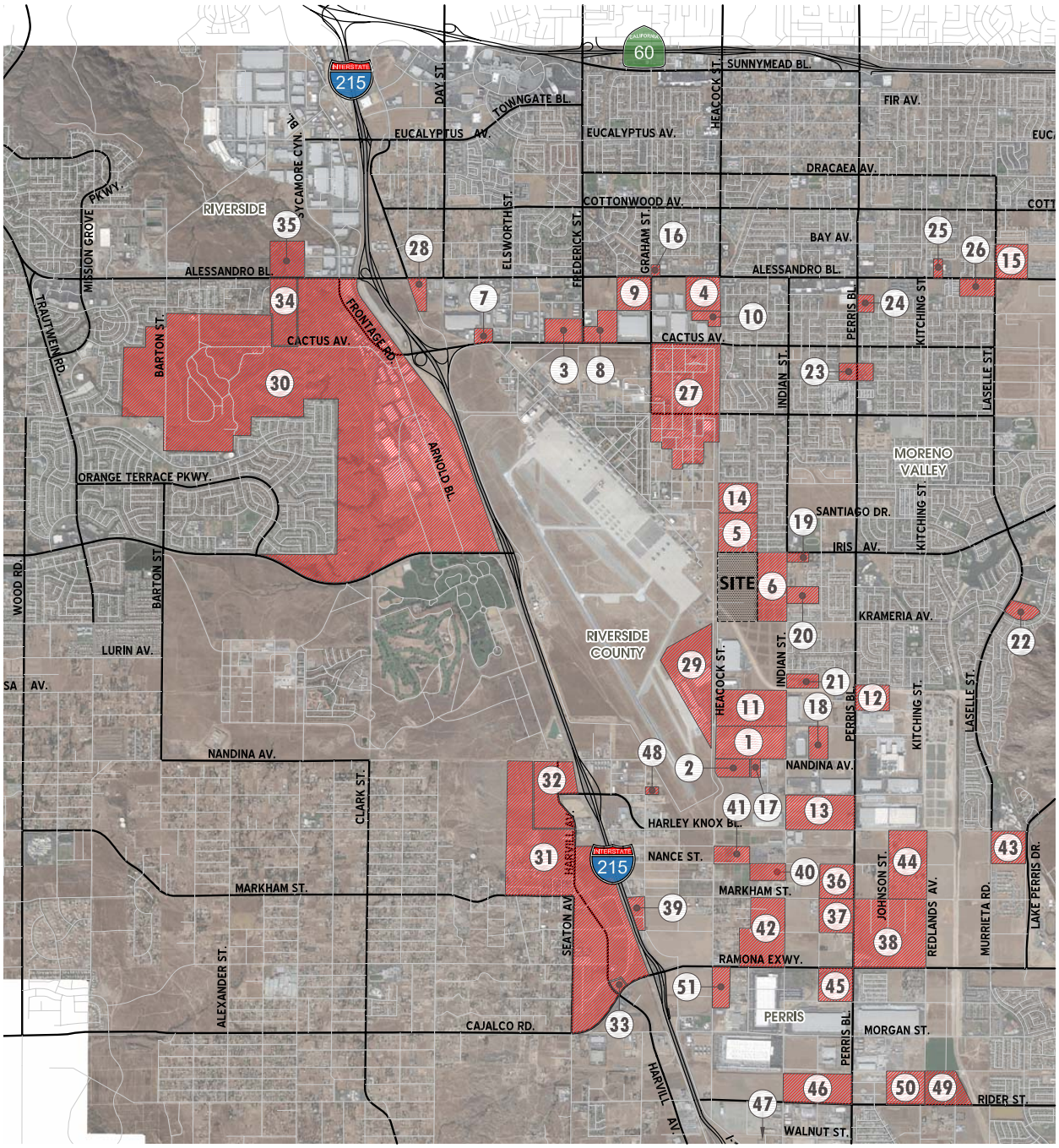
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-12
City of Moreno Valley Truck Routes



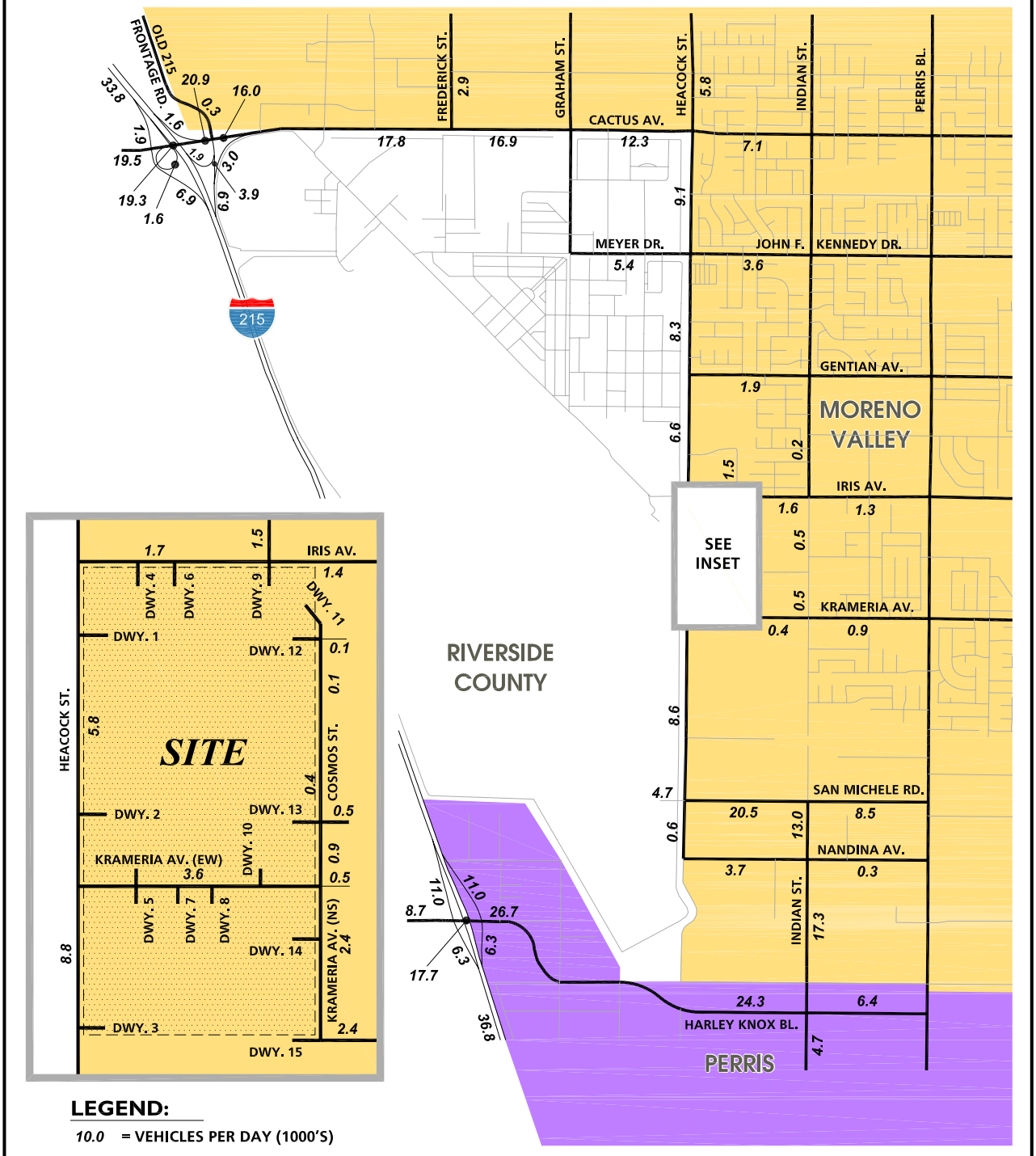
Source: Urban Crossroads (09-08-11)

FIGURE 4.11-13
City of Moreno Valley Level of Service (LOS) Standards



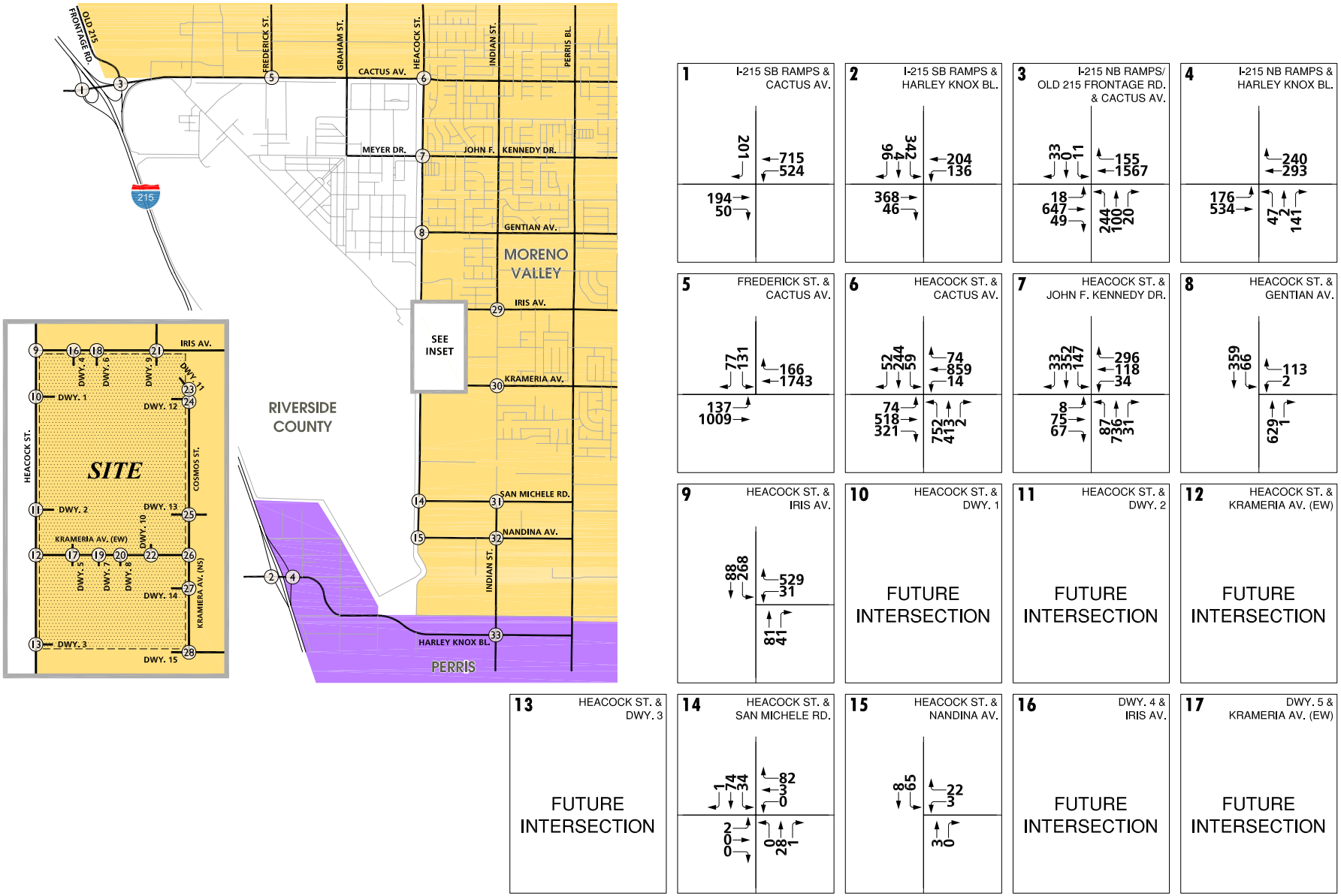
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-14
Cumulative Development Projects Location Map



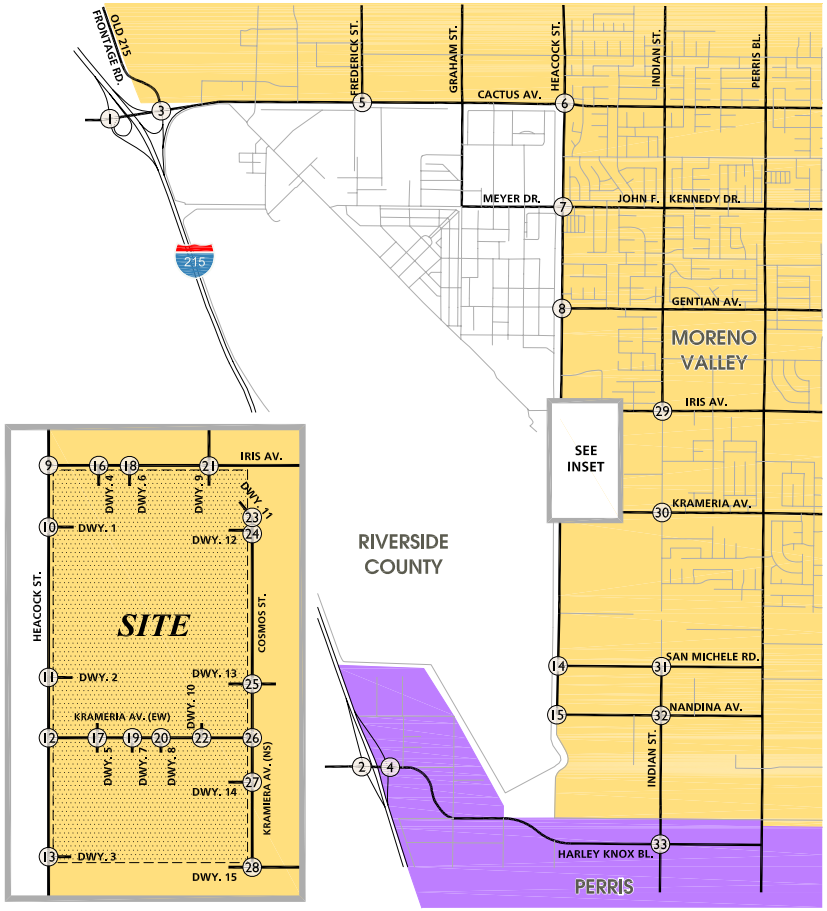
Source: Urban Crossroads (11-03-11)

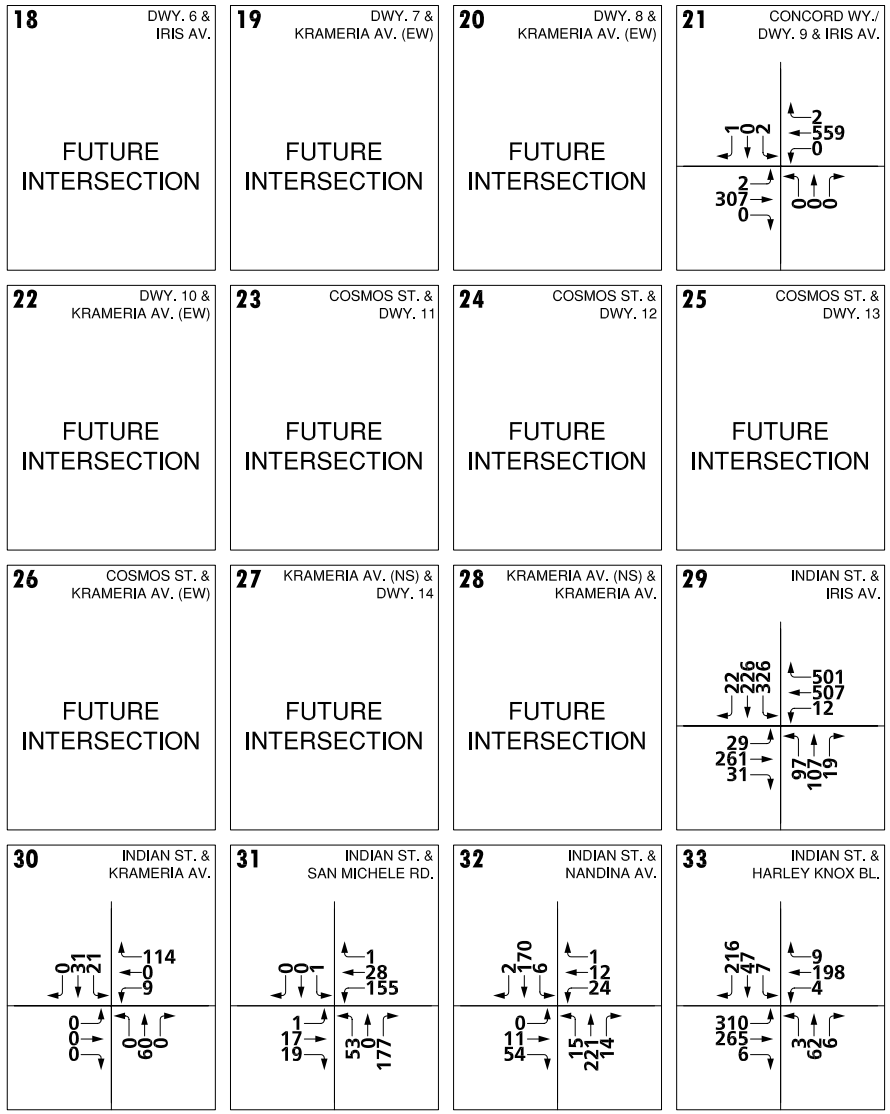
FIGURE 4.11-15
Cumulative Development Projects Average Daily Traffic ((ADT)



Source: Urban Crossroads (11-03-11)

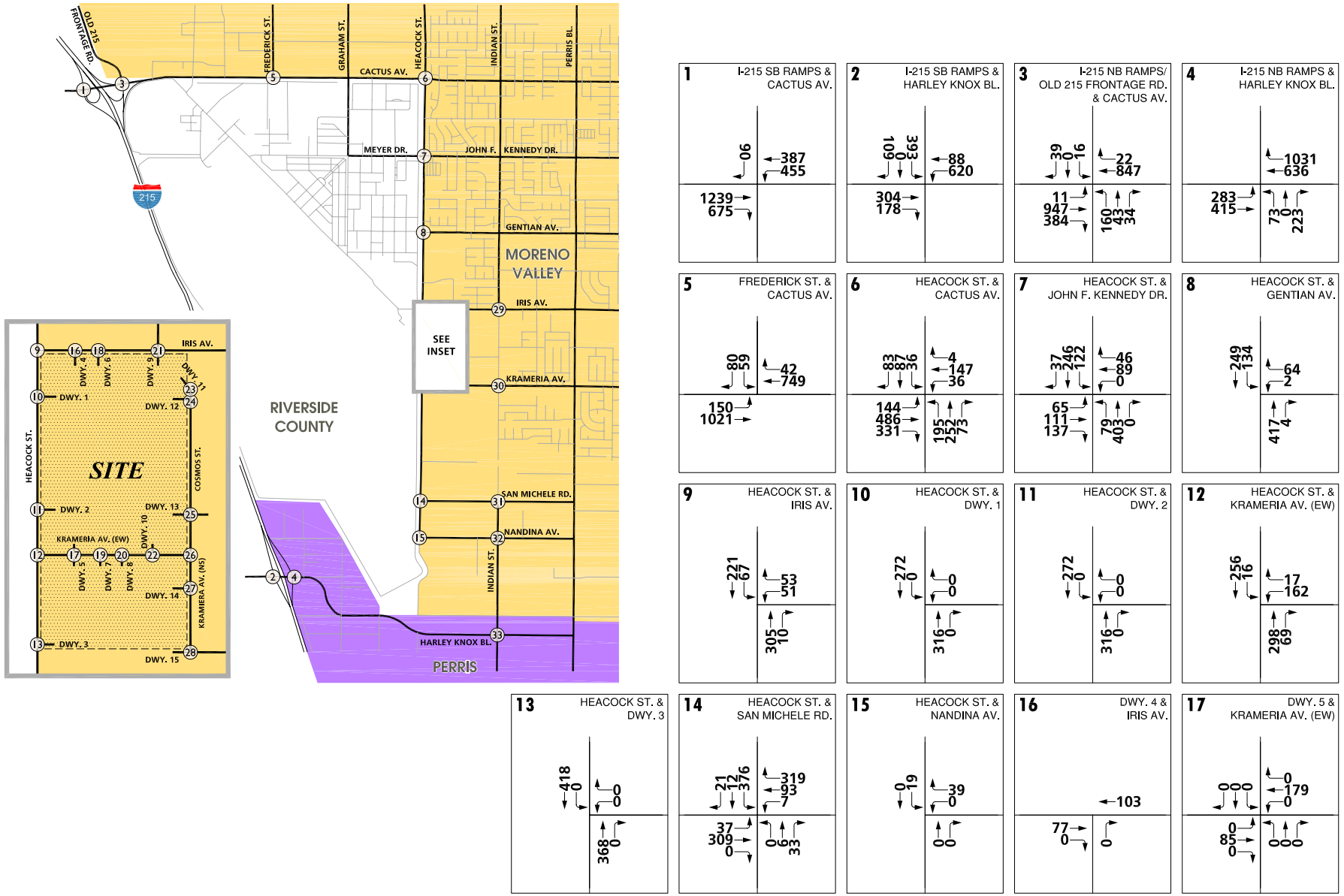
FIGURE 4.11-16A
Cumulative Development Projects AM Peak Hour Intersection Volumes (1 of 2)





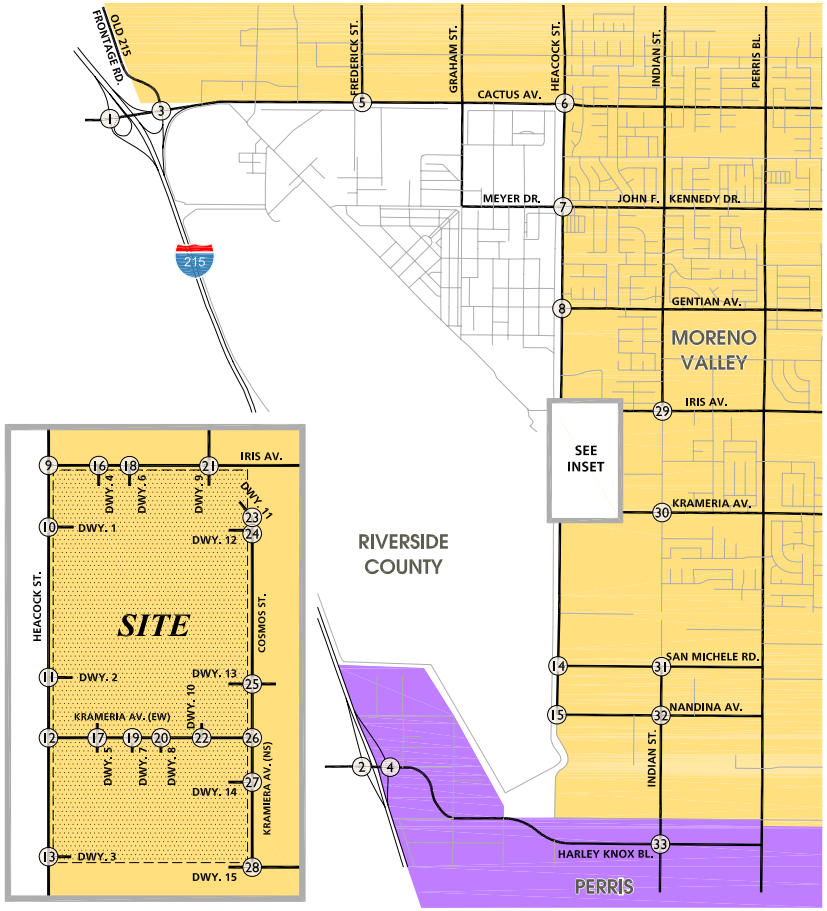
Source: Urban Crossroads (11-03-11)

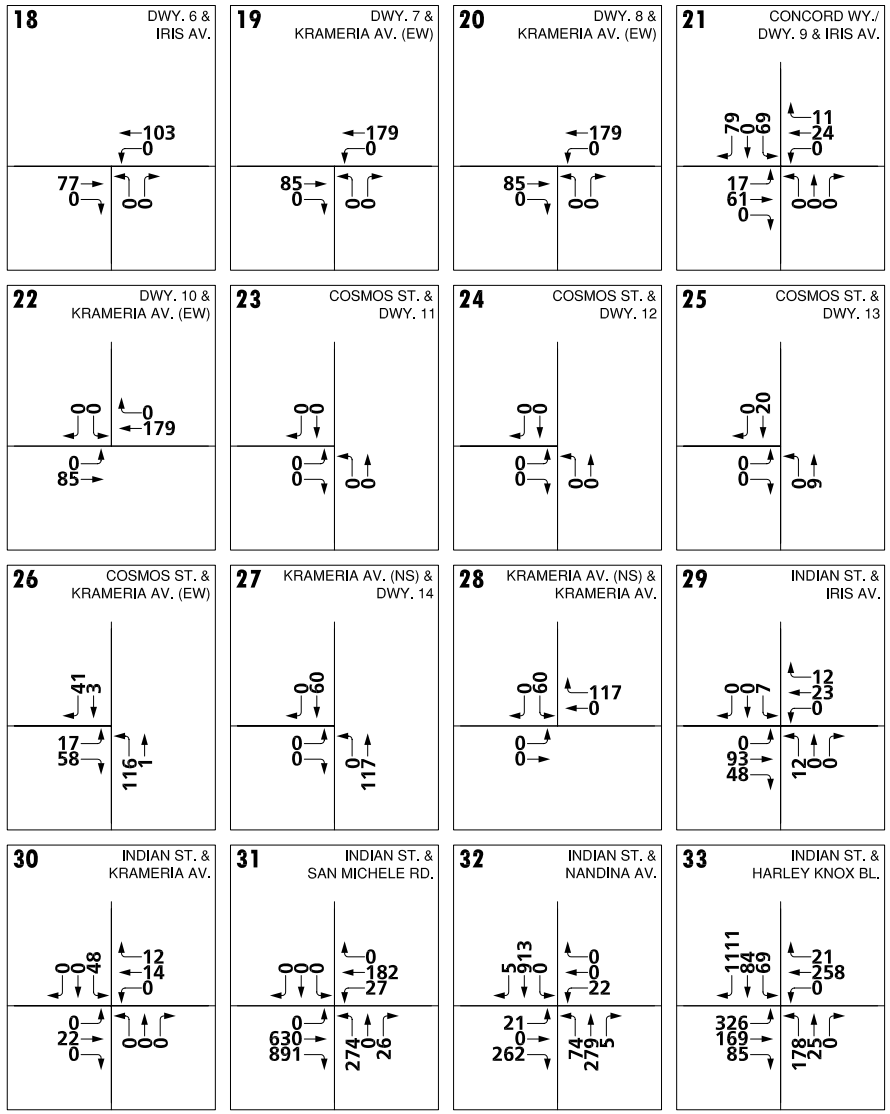
FIGURE 4.11-16B
Cumulative Development Projects AM Peak Hour Intersection Volumes (2 of 2)



Source: Urban Crossroads (11-03-11)

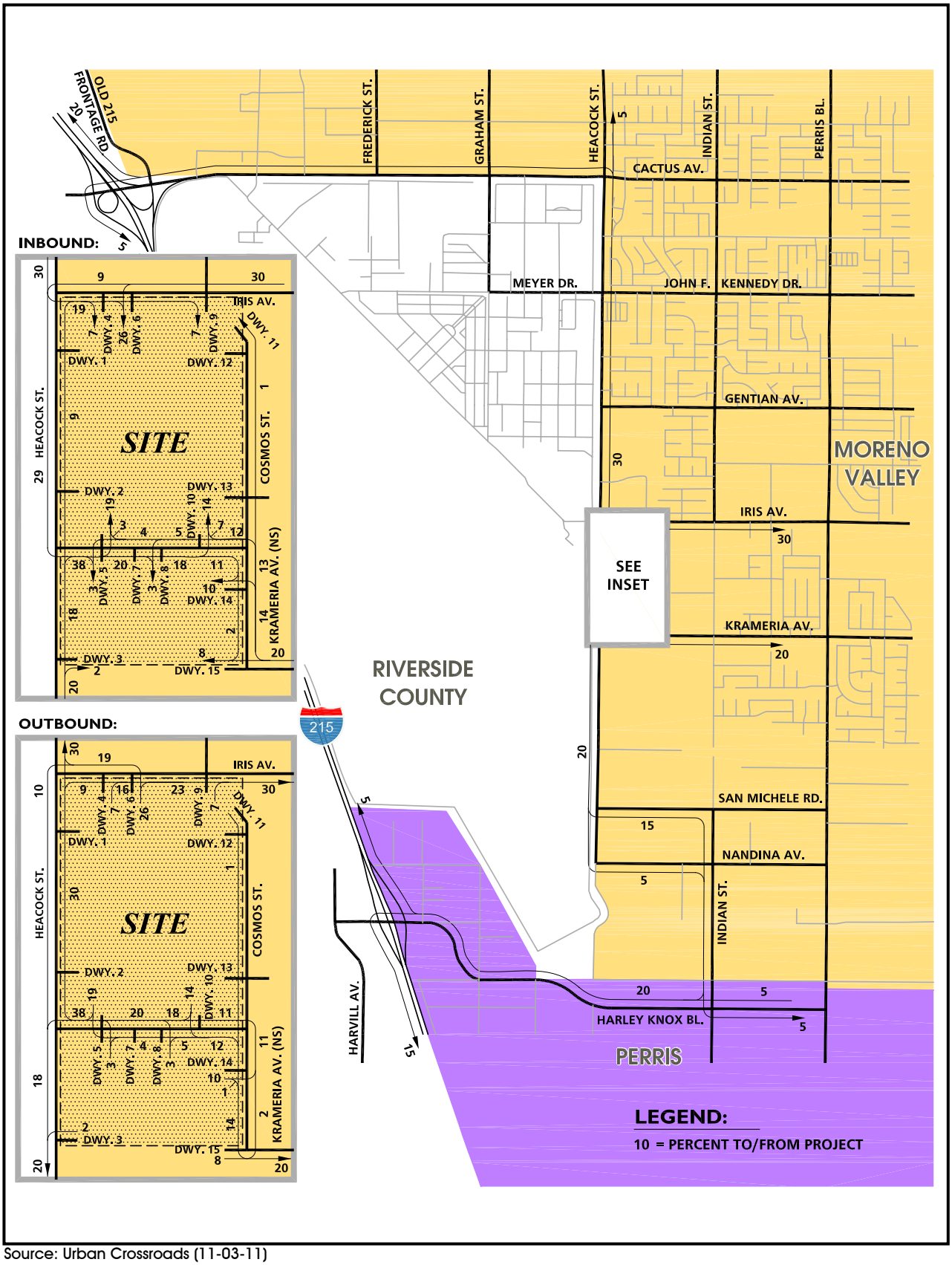
FIGURE 4.11-17A
Cumulative Development Projects PM Peak Hour Intersection Volumes (1 of 2)





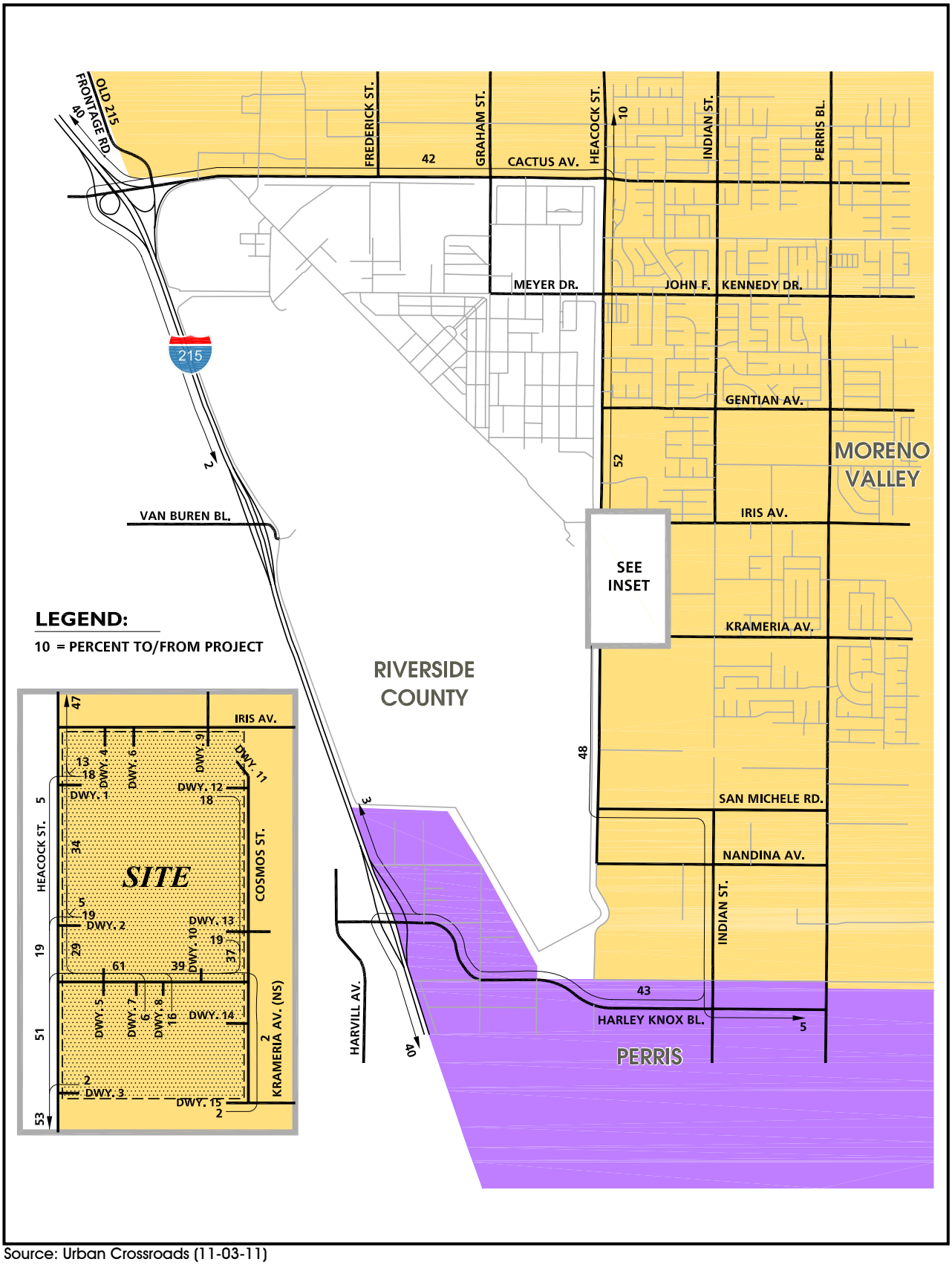
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-17B
Cumulative Development Projects PM Peak Hour Intersection Volumes (2 of 2)



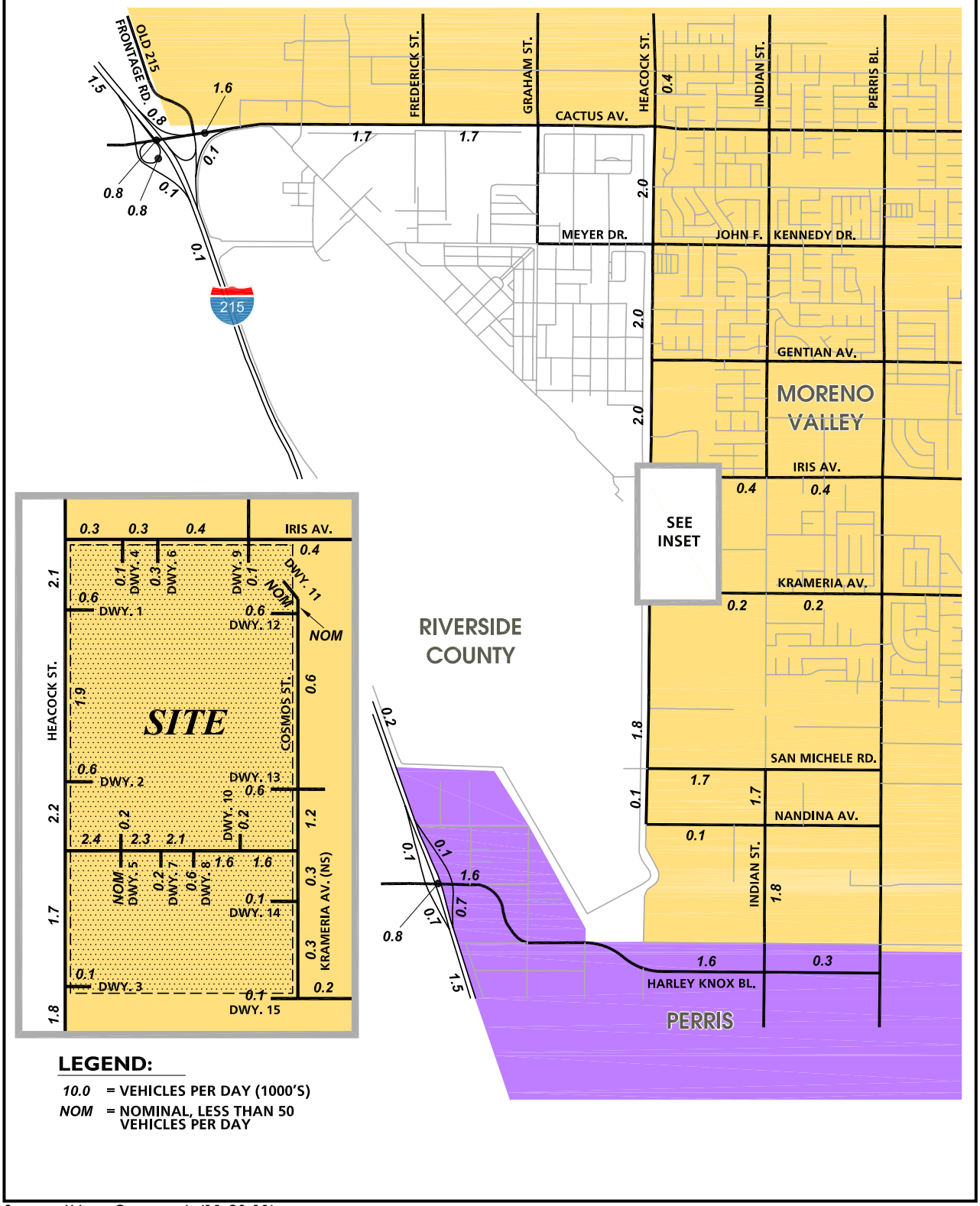
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-18
Project Passenger Car Trip Distribution



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-19
Project Truck Trip Distribution

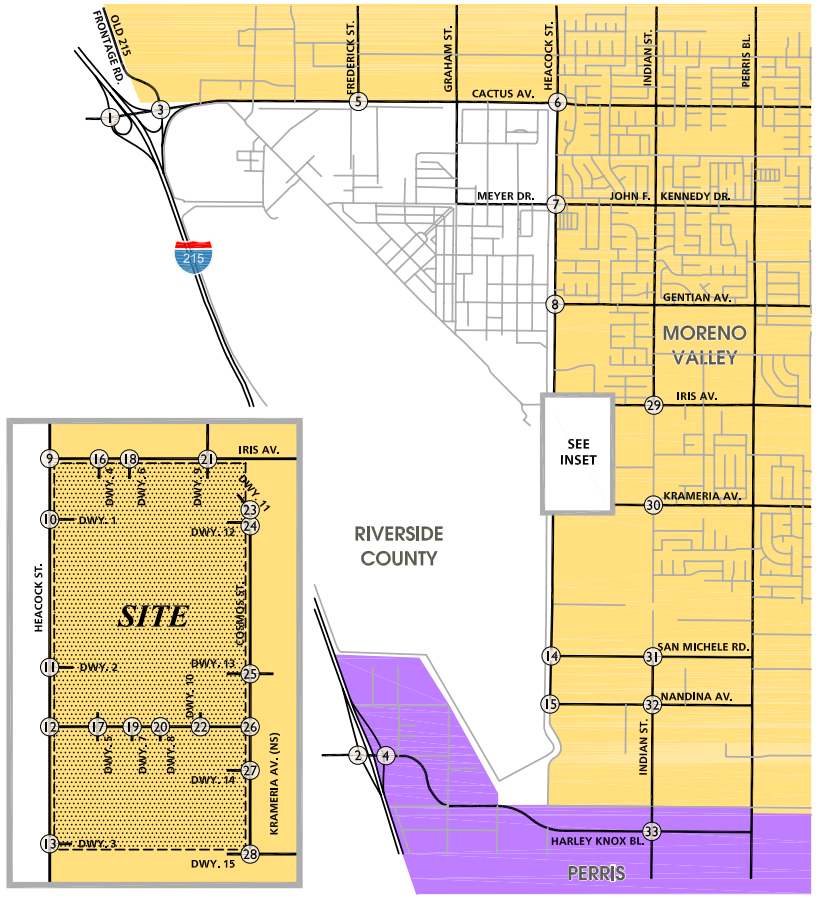


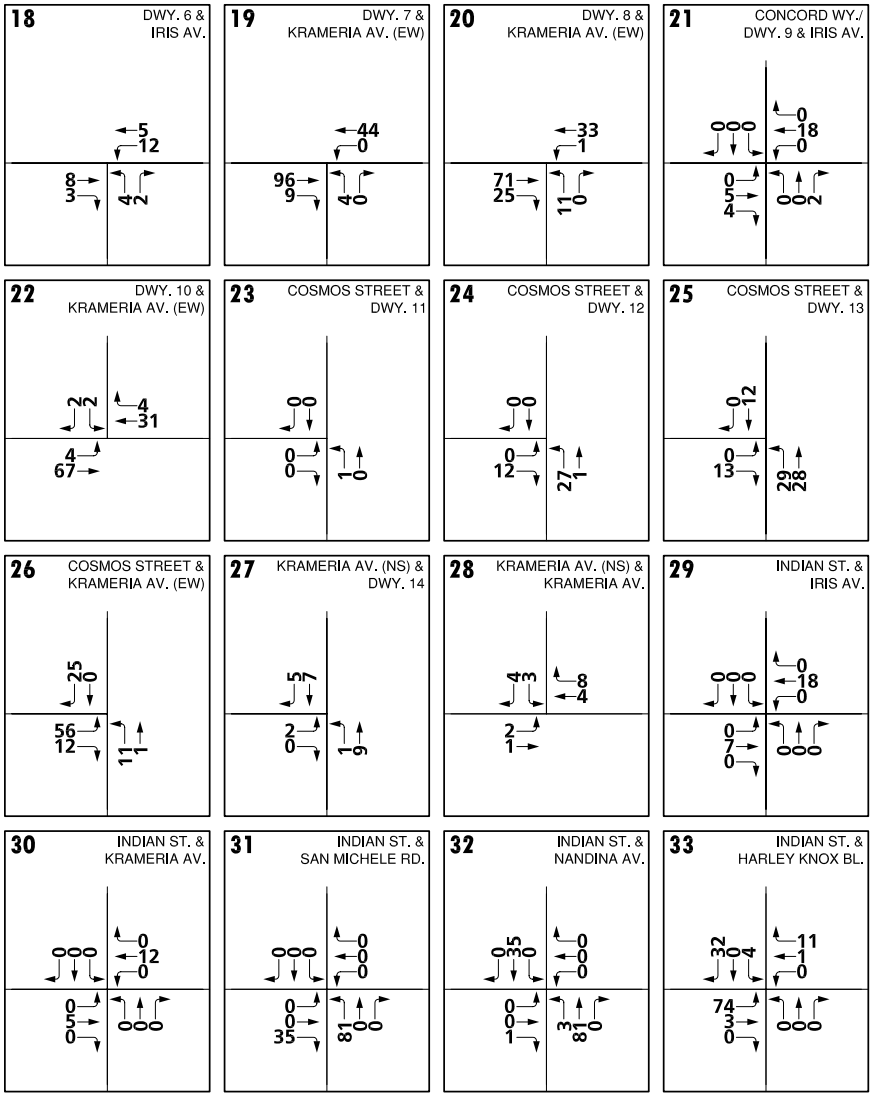
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-20
Project (2016) Average Daily Traffic (ADT)

Source: Urban Crossroads (11-03-11)

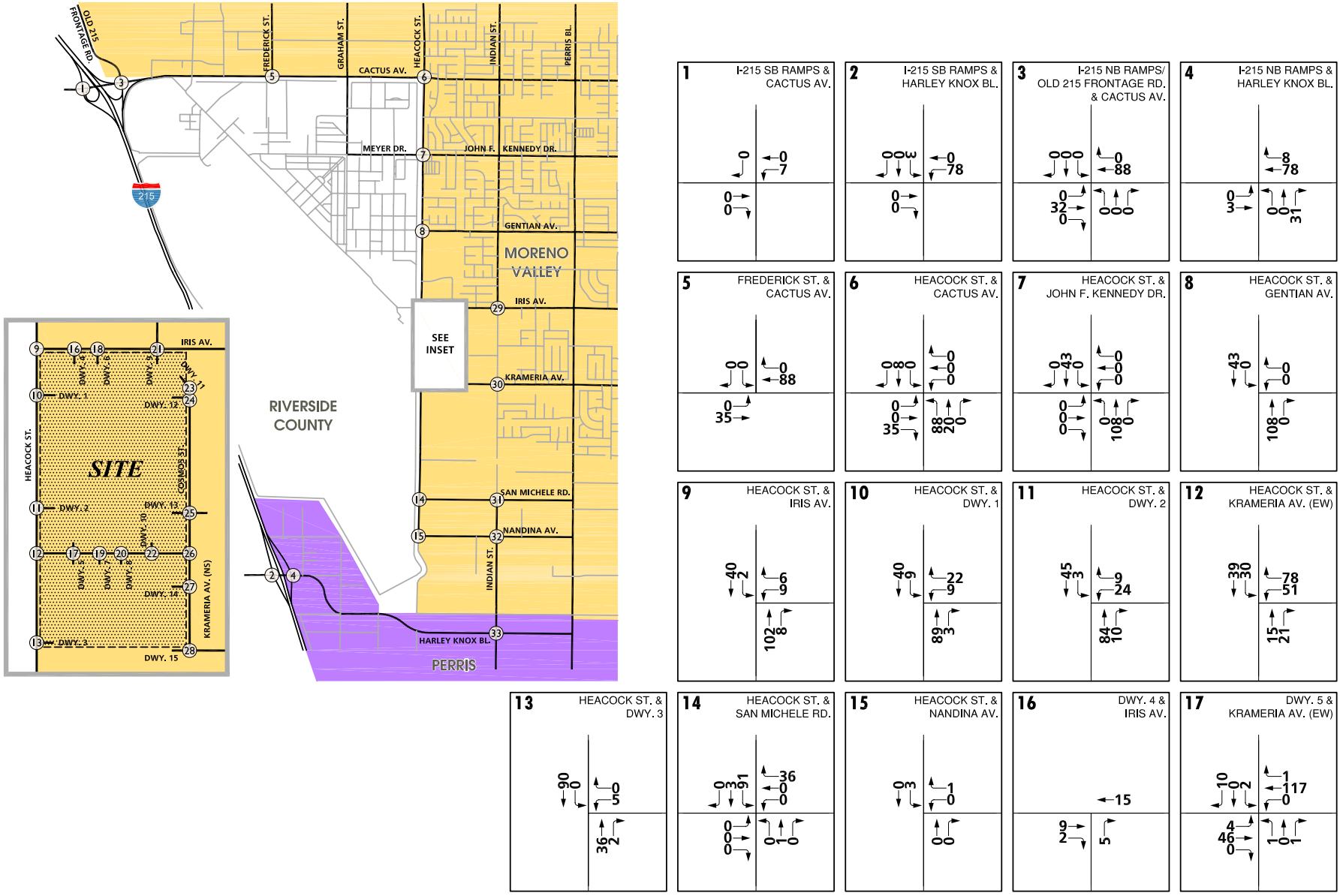
FIGURE 4.11-21A
Project (2016) AM Peak Hour Intersection Volumes (1 of 2)





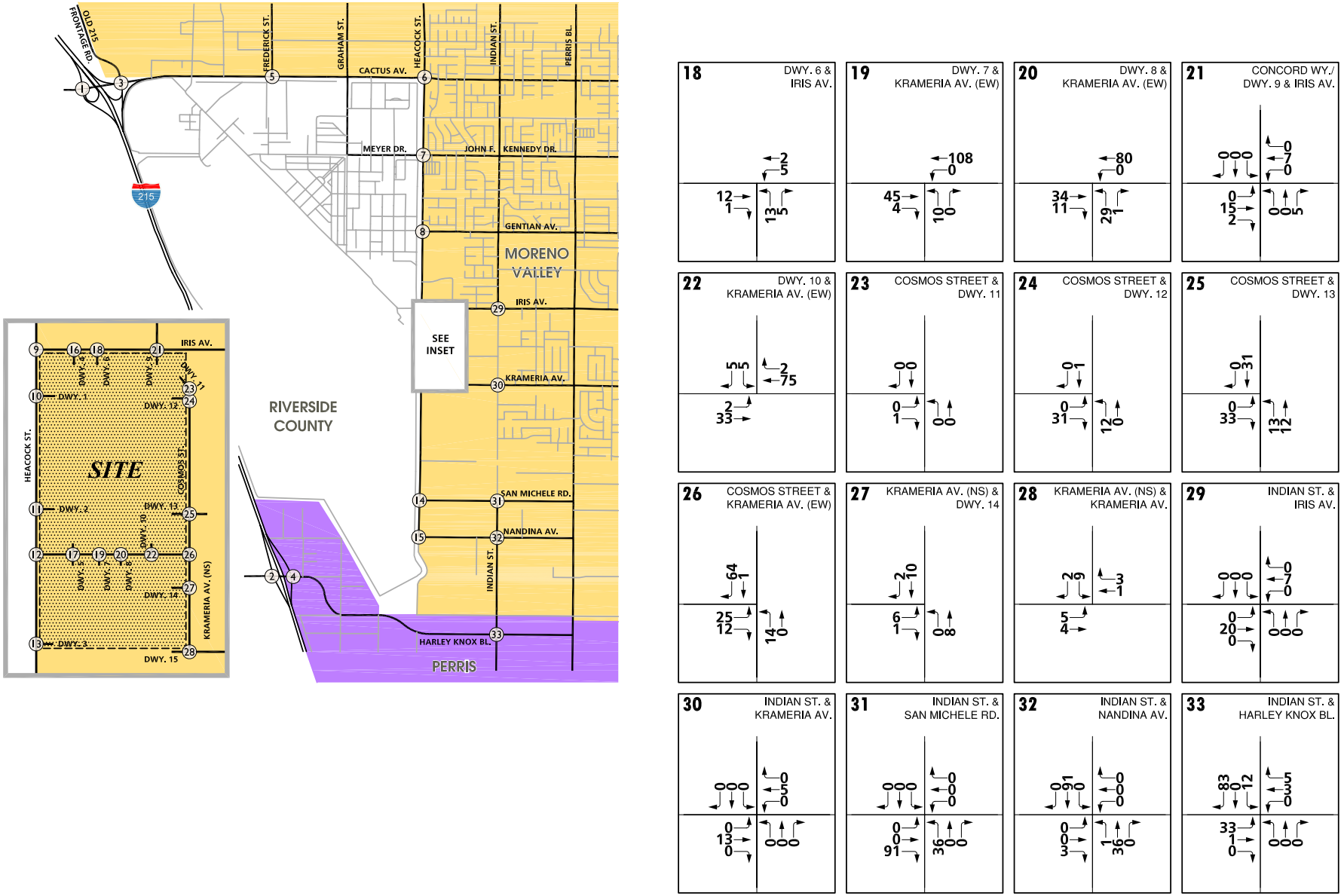
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-21B
Project (2016) AM Peak Hour Intersection Volumes (2 of 2)



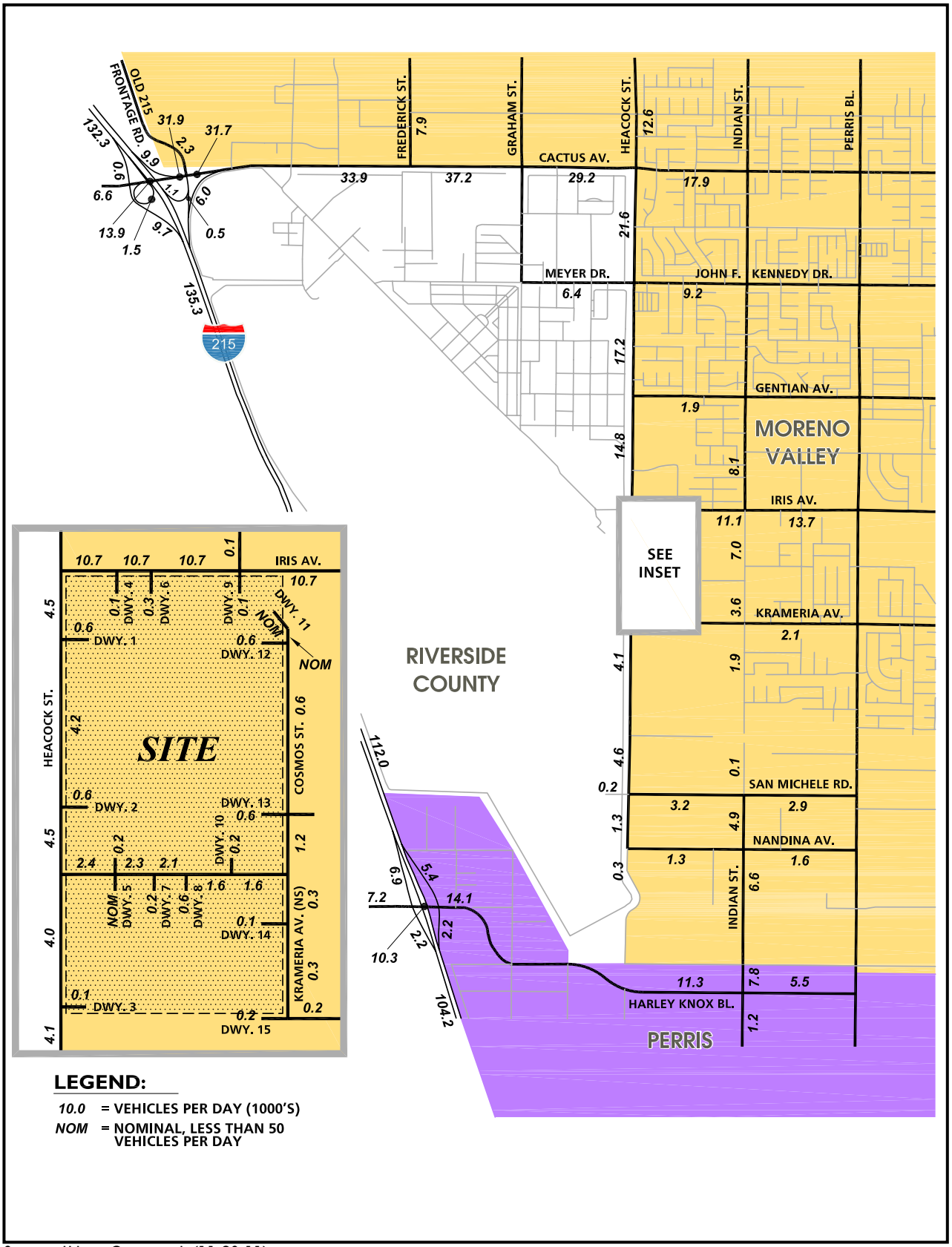
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-22A
Project (2016) PM Peak Hour Intersection Volumes (1 of 2)



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-22B
Project (2016) PM Peak Hour Intersection Volumes (2 of 2)

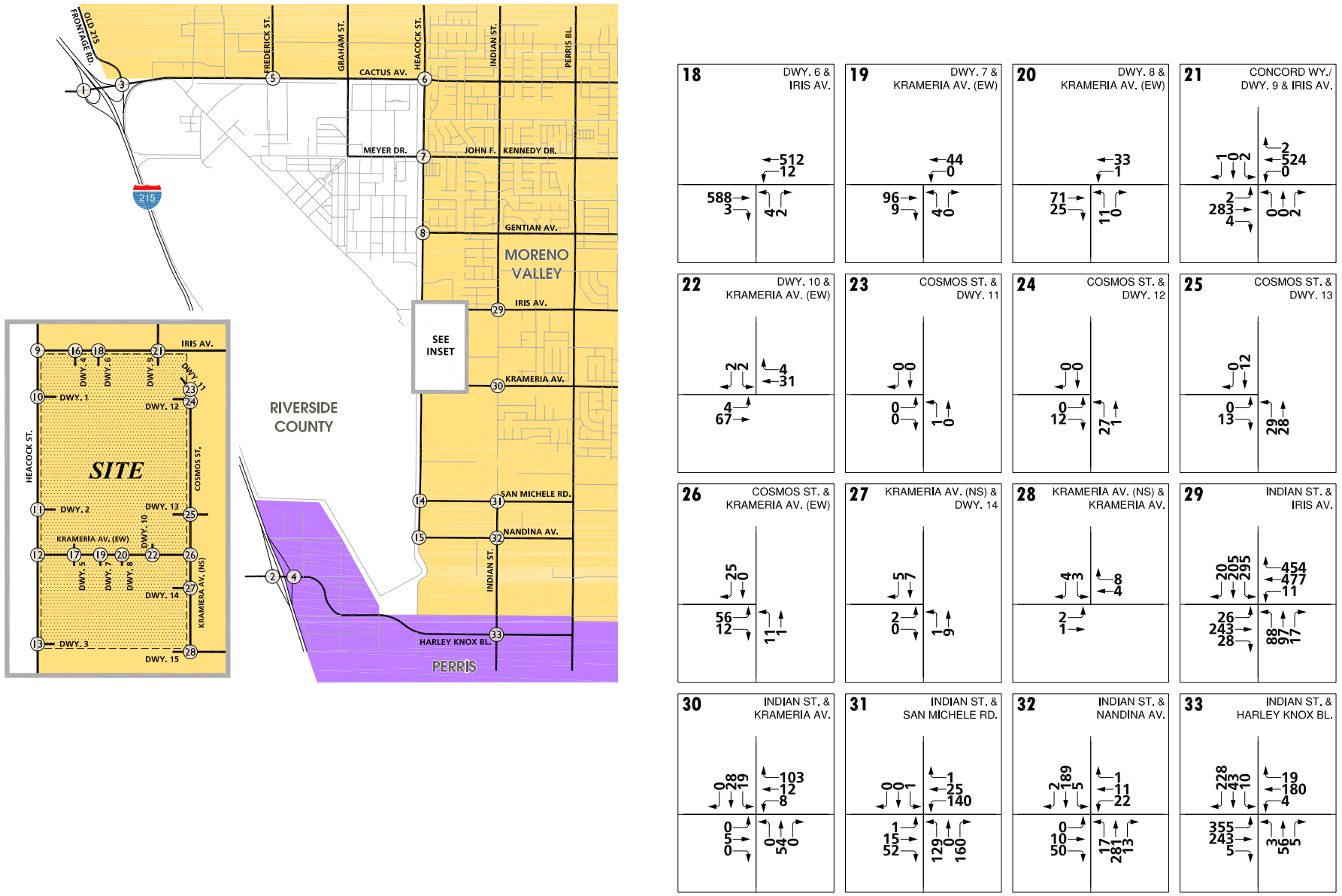


Source: Urban Crossroads (11-03-11)

FIGURE 4.11-23
Existing Plus Project (E+P) Average Daily Traffic (ADT)

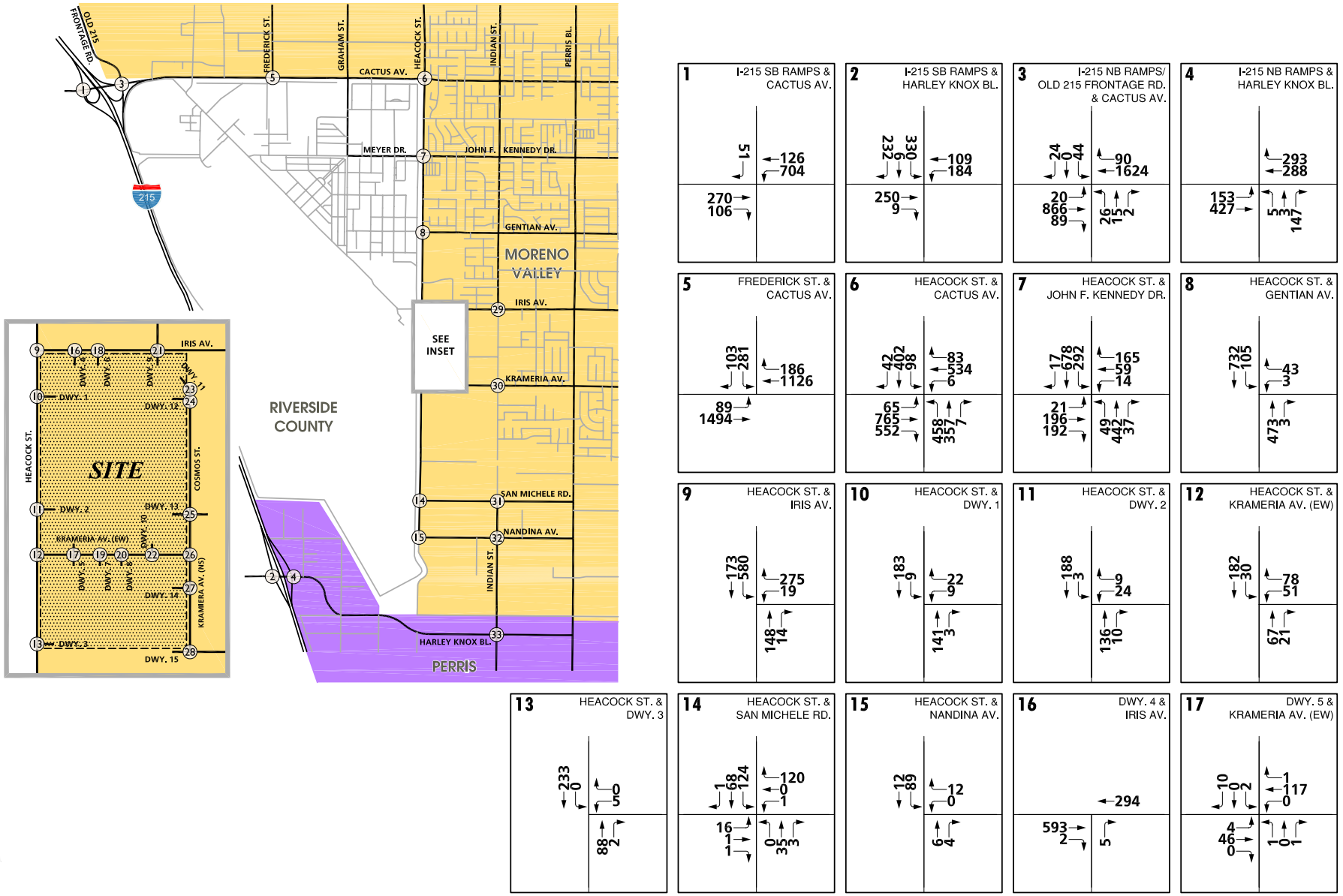
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-24A
Existing Plus Project (E+P) AM Peak Hour Intersection Volumes (1 of 2)



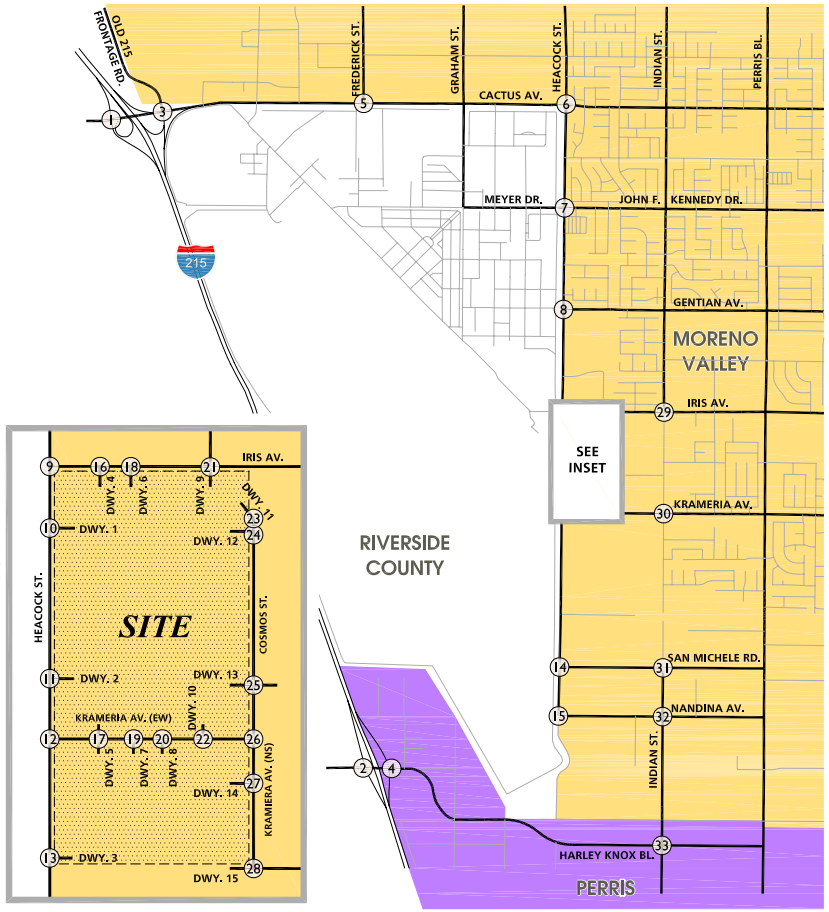
Source: Urban Crossroads (11-03-11)

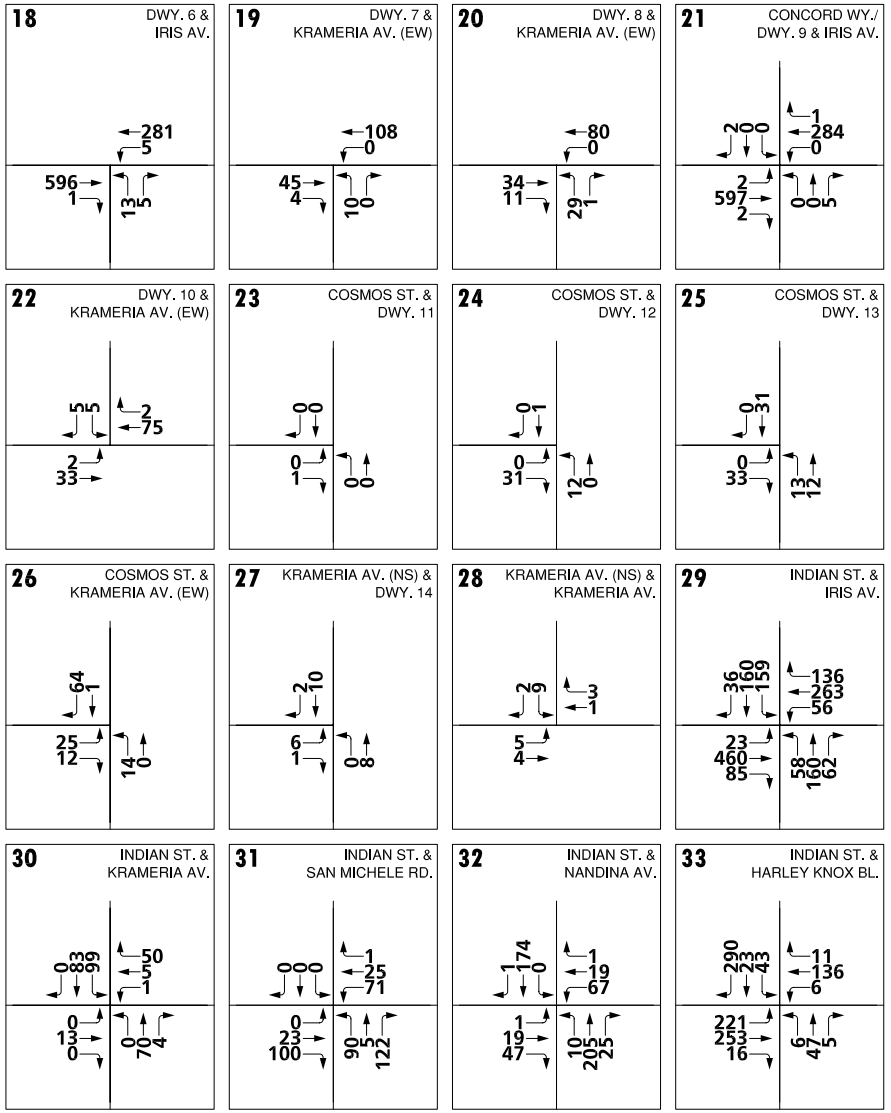
FIGURE 4.11-24B
Existing Plus Project (E+P) AM Peak Hour Intersection Volumes (2 of 2)



Source: Urban Crossroads (11-03-11)

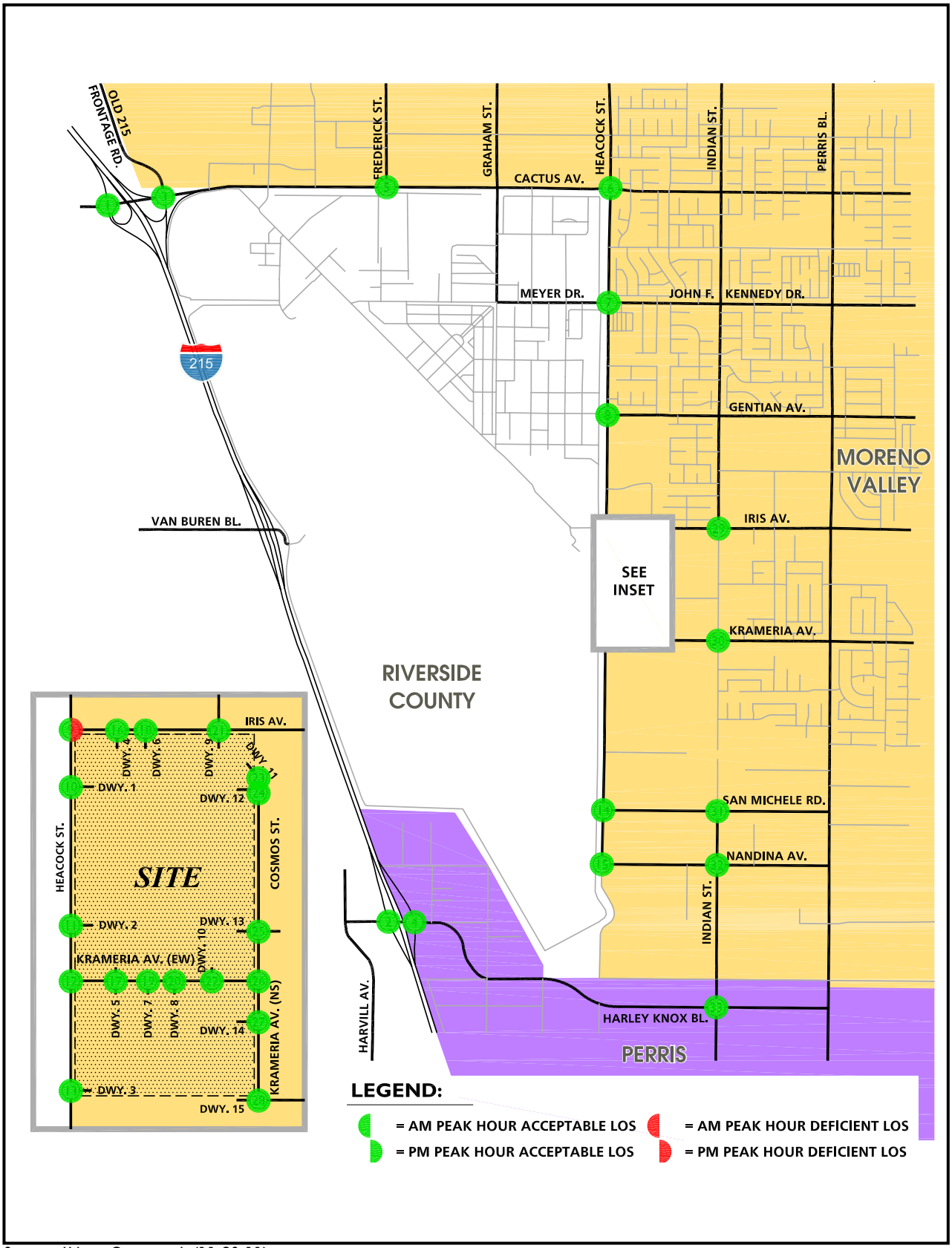
FIGURE 4.11-25A
Existing Plus Project (E+P) PM Peak Hour Intersection Volumes (1 of 2)





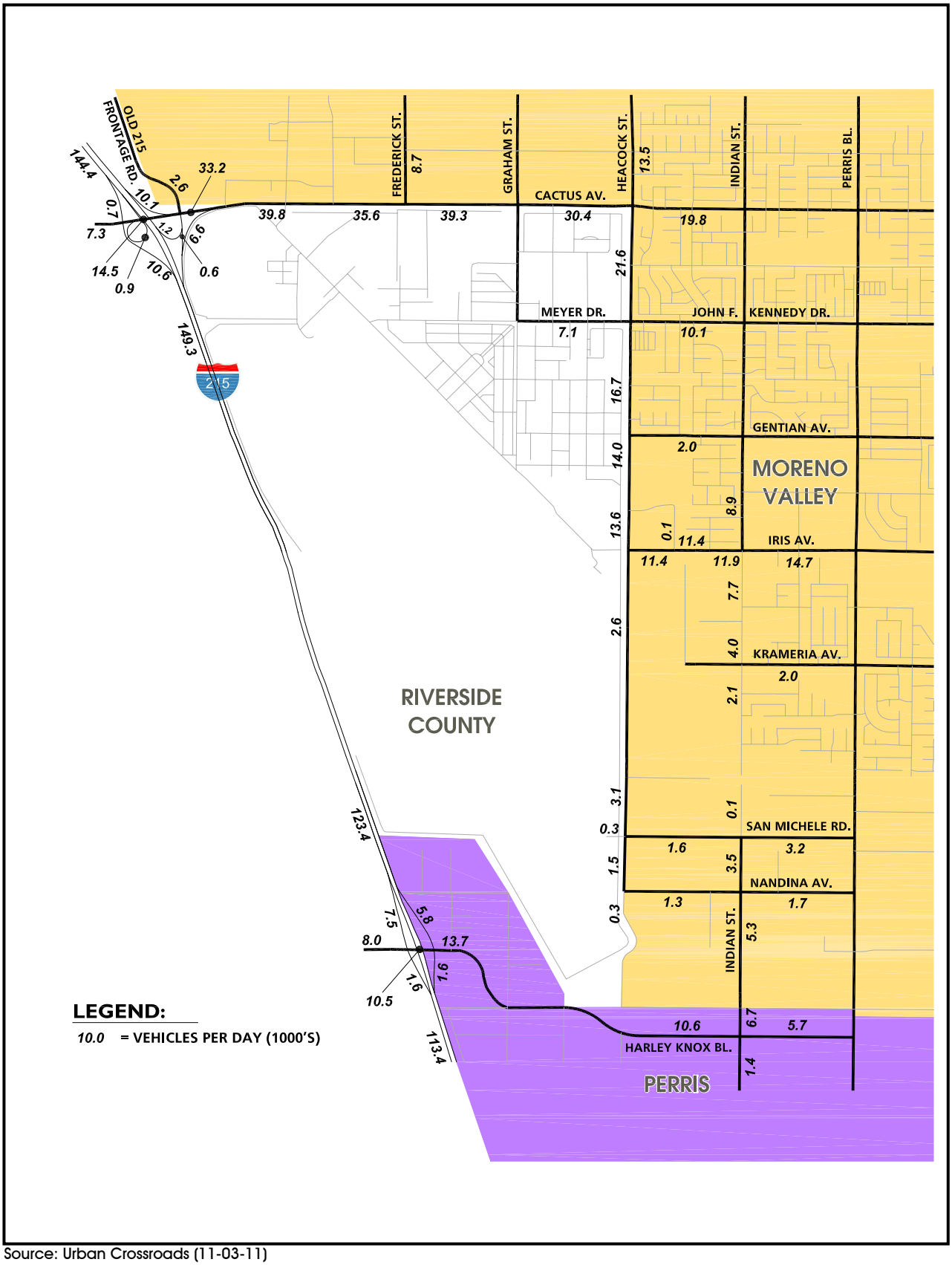
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-25B
Existing Plus Project (E+P) PM Peak Hour Intersection Volumes (2 of 2)



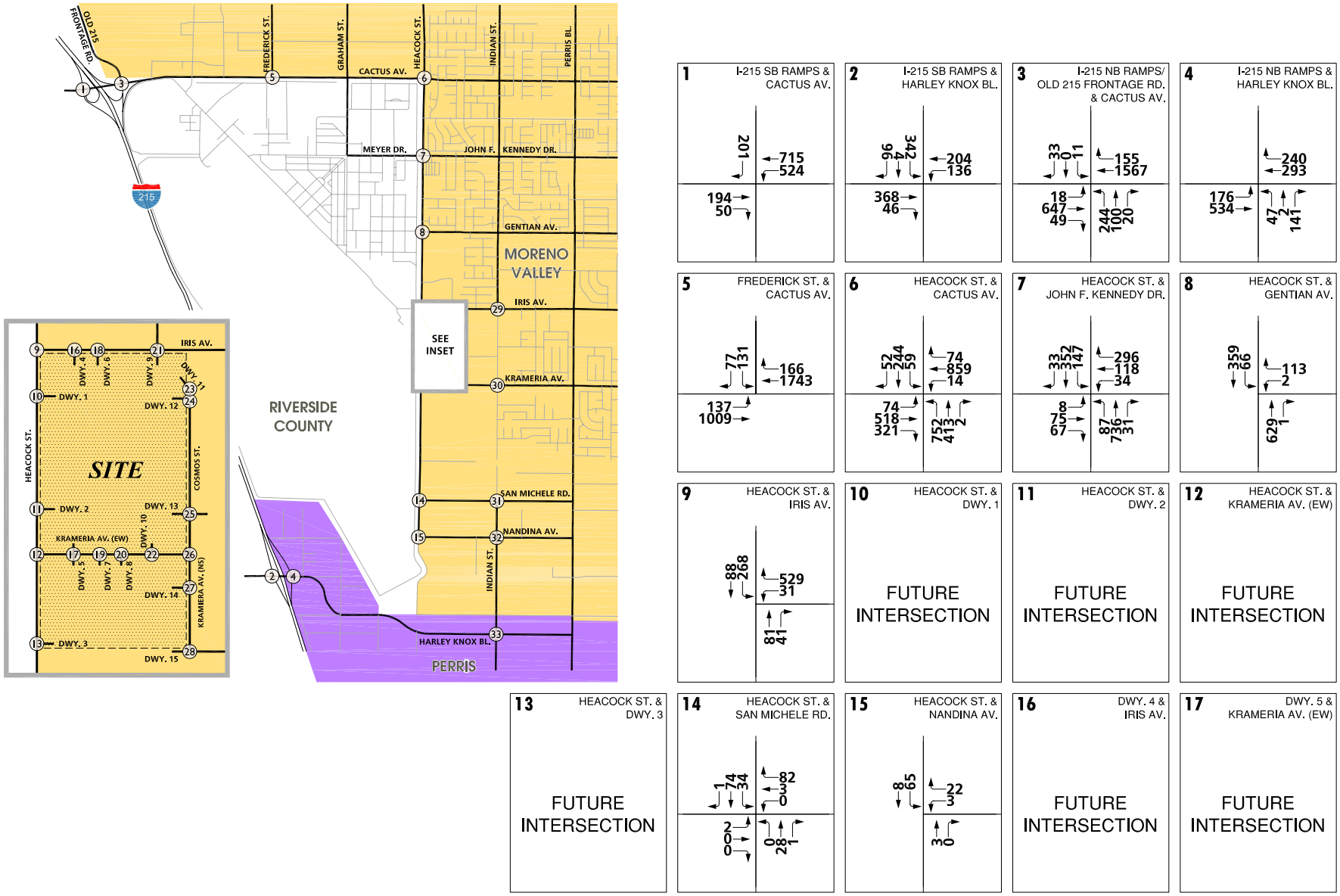
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-26
Existing Plus Project (E+P) Peak Hour Intersection Level of Service (LOS)



Source: Urban Crossroads (11-03-11)

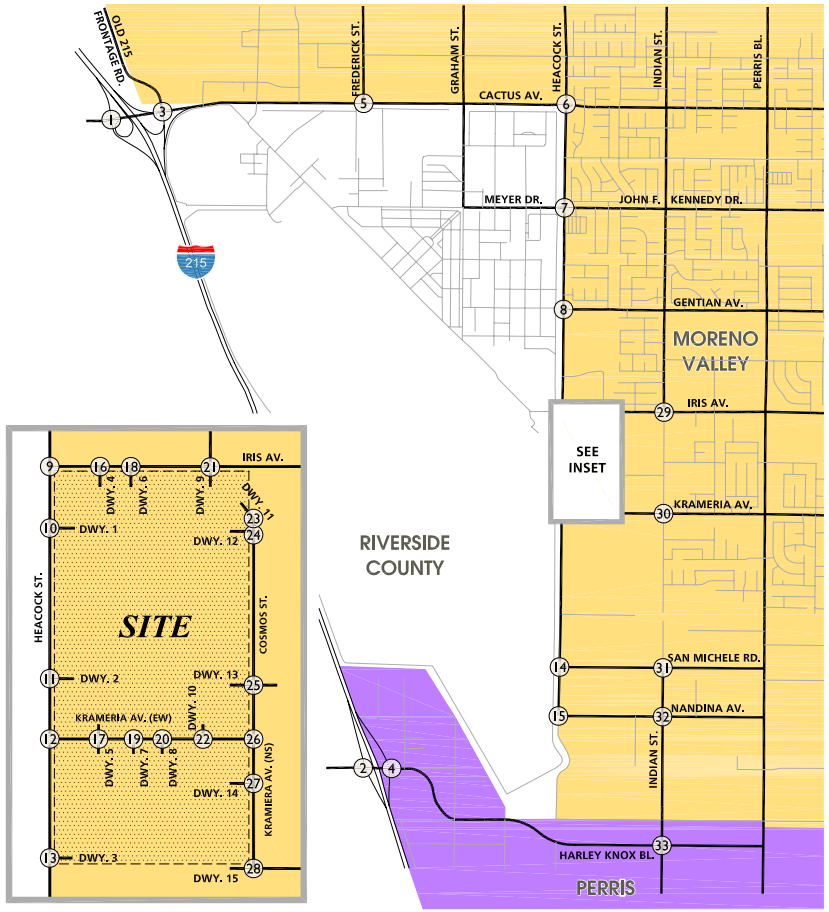
FIGURE 4.11-27
Opening Year (2016) Without Project (E+A) Average Daily Traffic (ADT)

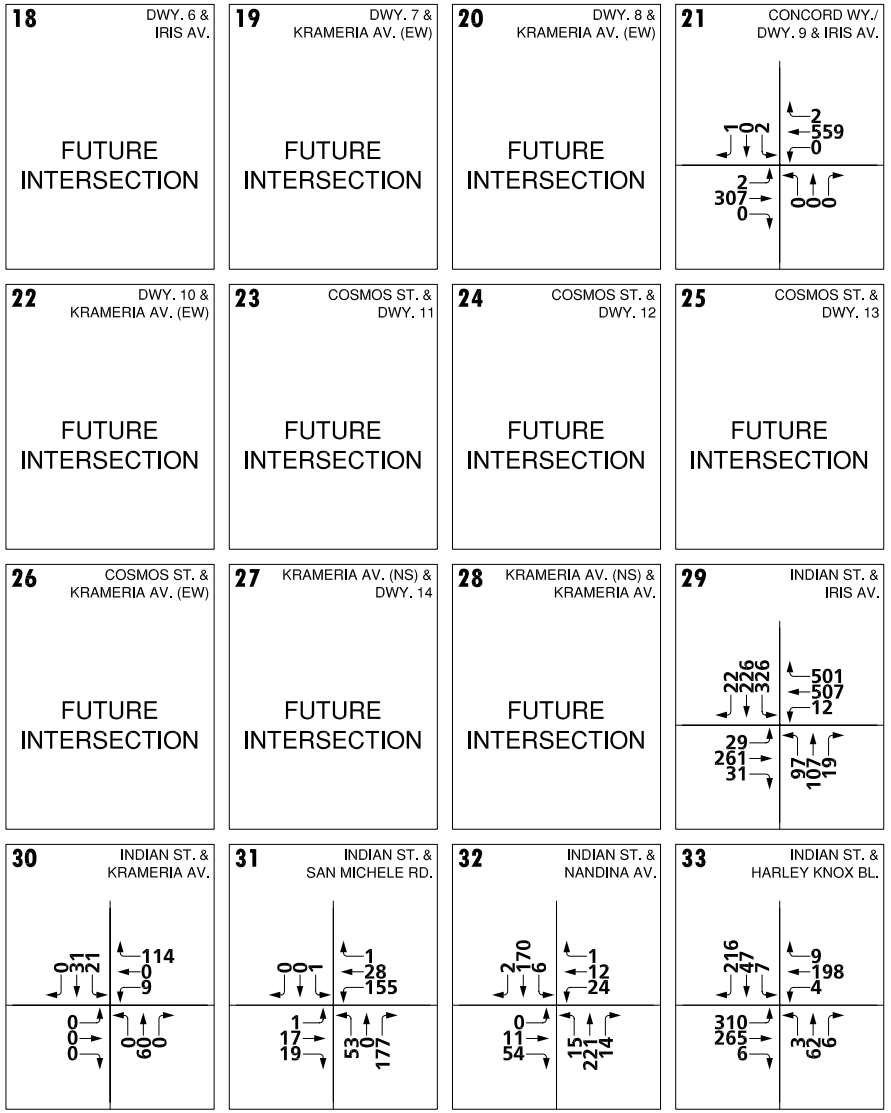


Source: Urban Crossroads (11-03-11)

FIGURE 4.11-28A

Opening Year (2016) Without Project (E+A) AM Peak Hour Intersection Volumes (1 of 2)

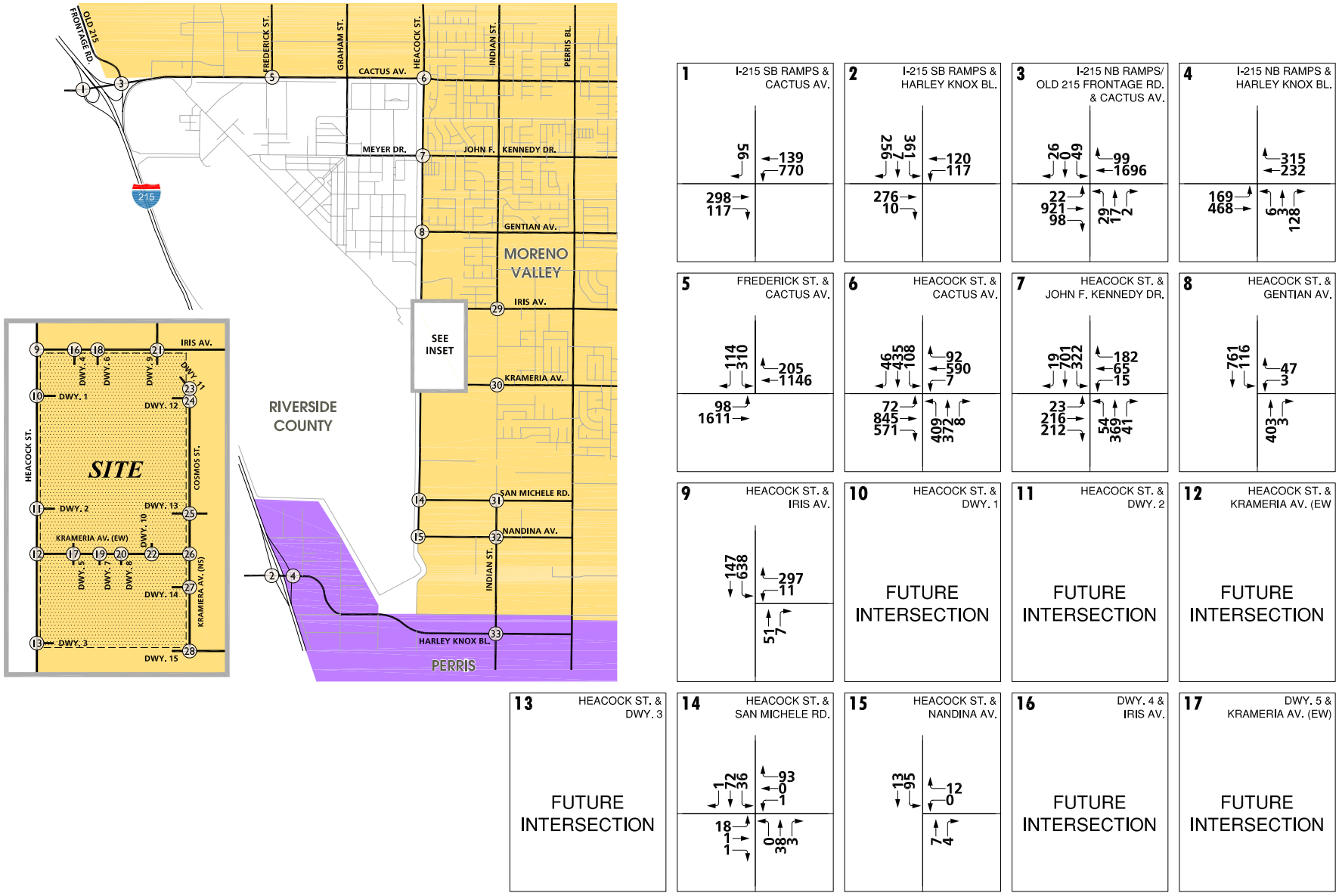




Source: Urban Crossroads (11-03-11)

FIGURE 4.11-28B

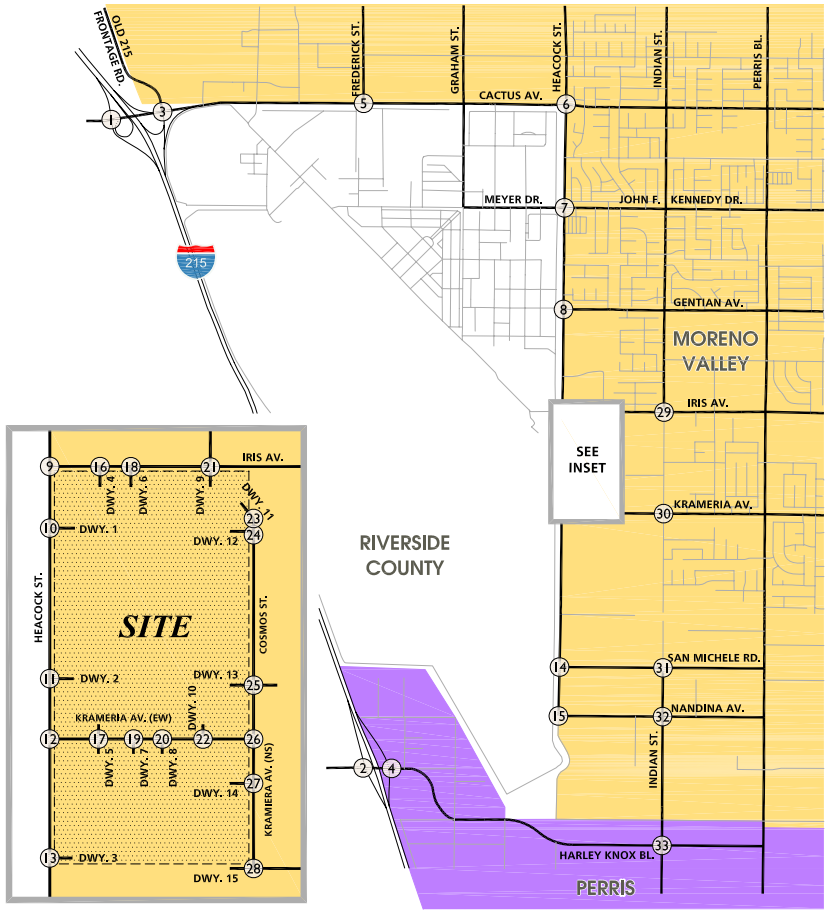
Opening Year (2016) Without Project (E+A) AM Peak Hour Intersection Volumes (2 of 2)

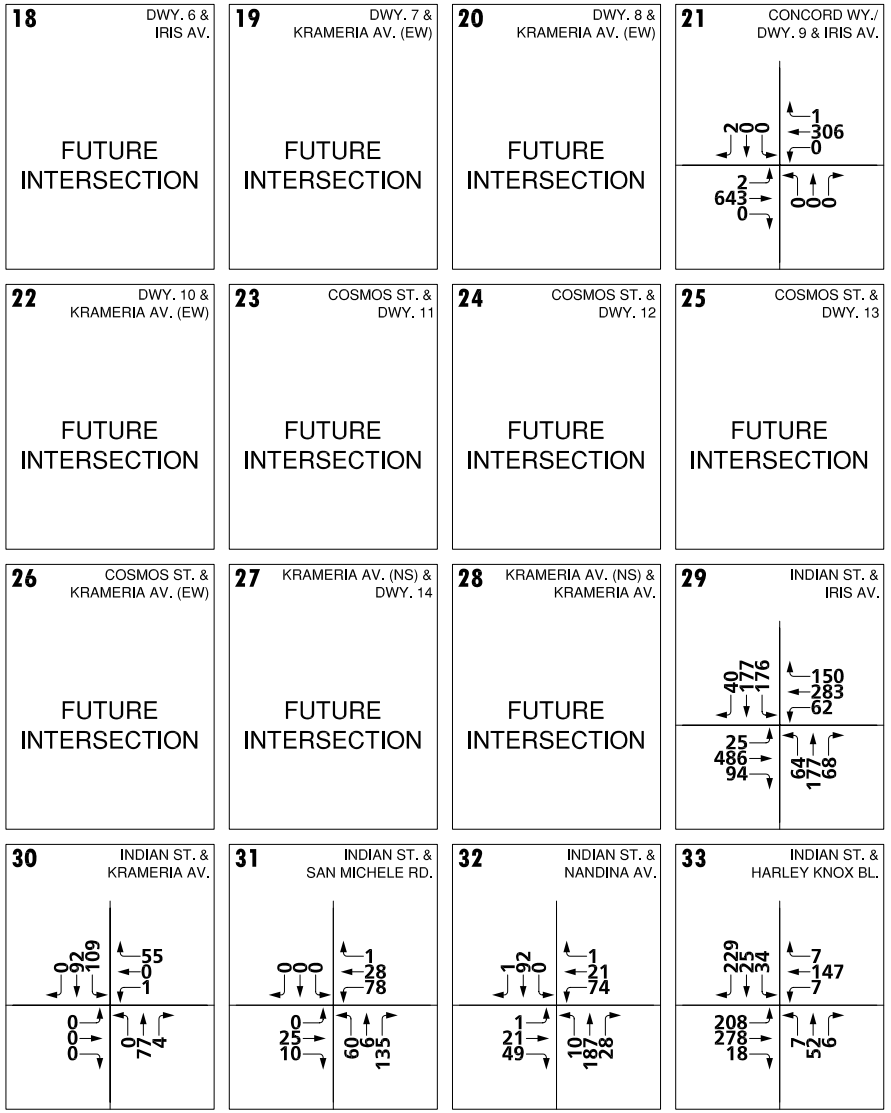


Source: Urban Crossroads (11-03-11)

FIGURE 4.11-29A

Opening Year (2016) Without Project (E+A) PM Peak Hour Intersection Volumes (1 of 2)

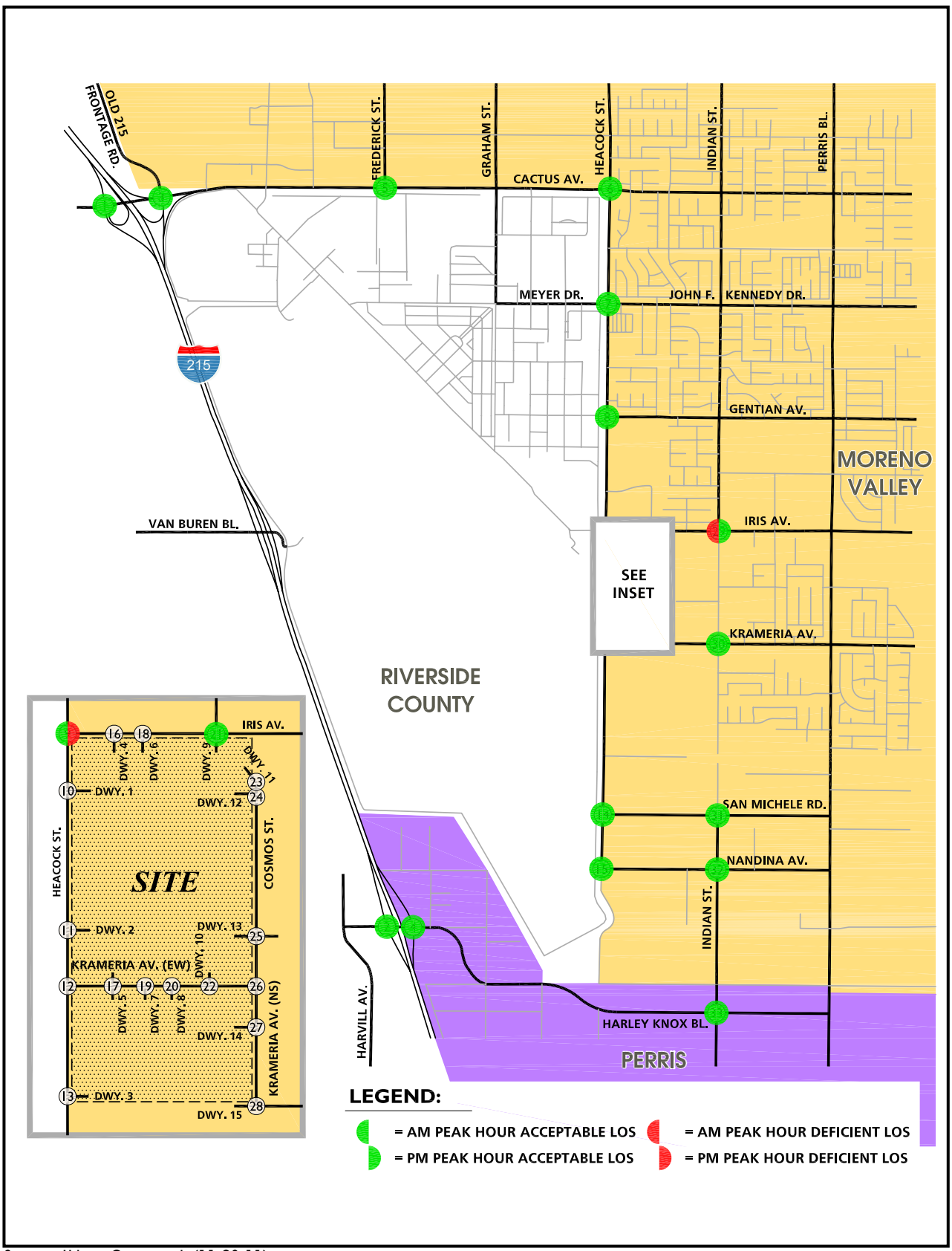




Source: Urban Crossroads (11-03-11)

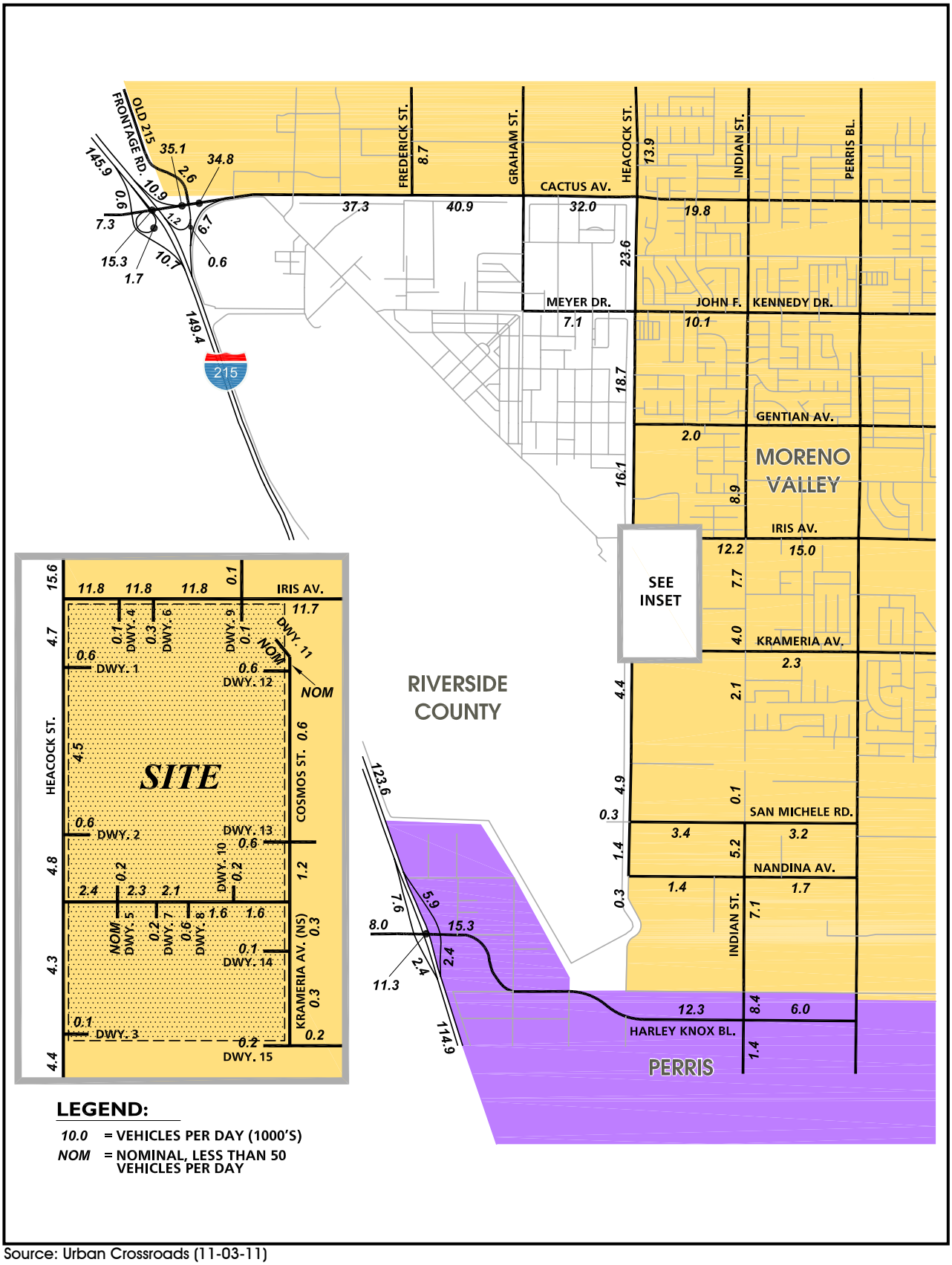
FIGURE 4.11-29B

Opening Year (2016) Without Project (E+A) PM Peak Hour Intersection Volumes (2 of 2)



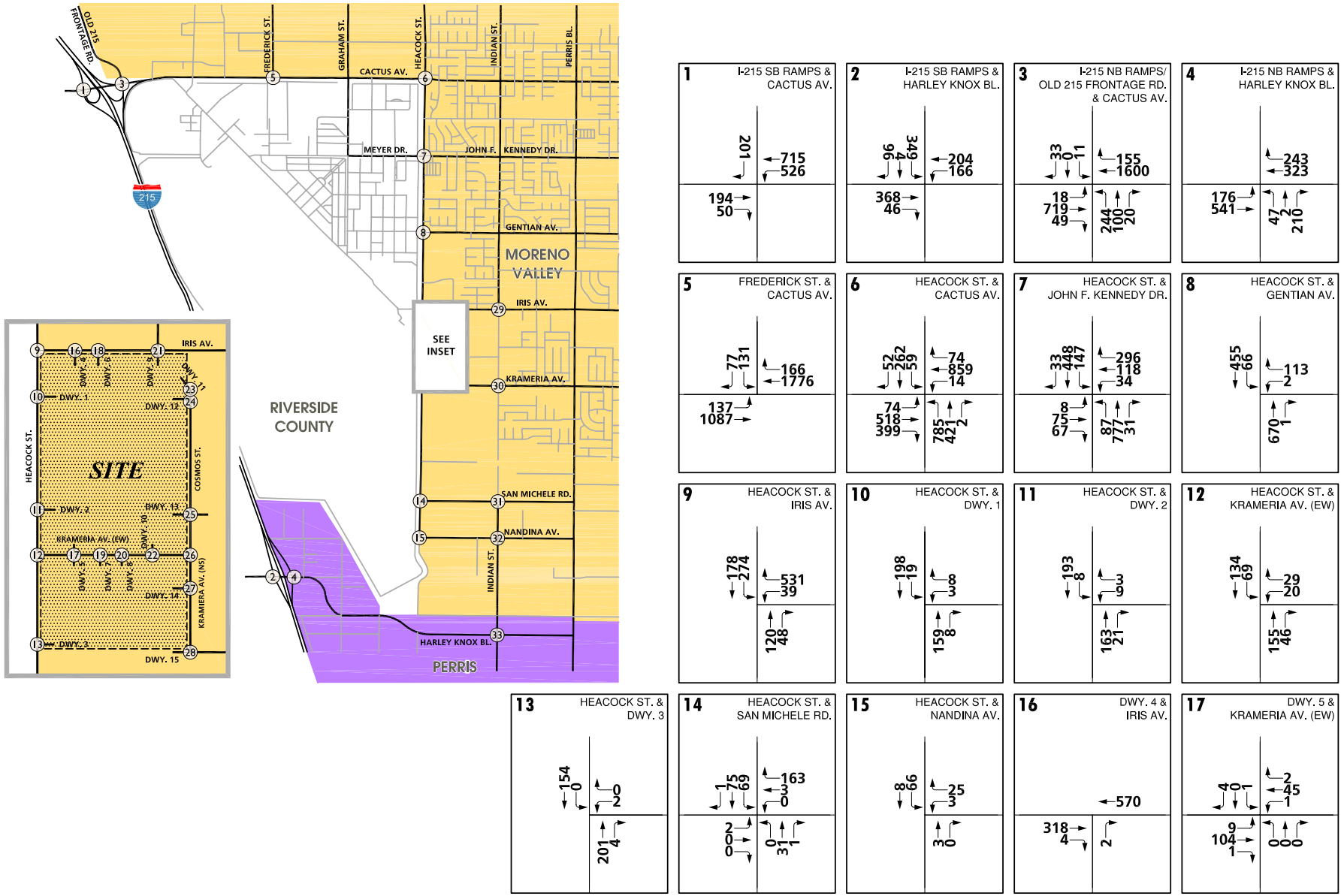
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-30
Opening Year (2016) Without Project (E+A)
Peak Hour Intersection Level of Service (LOS)



Source: Urban Crossroads (11-03-11)

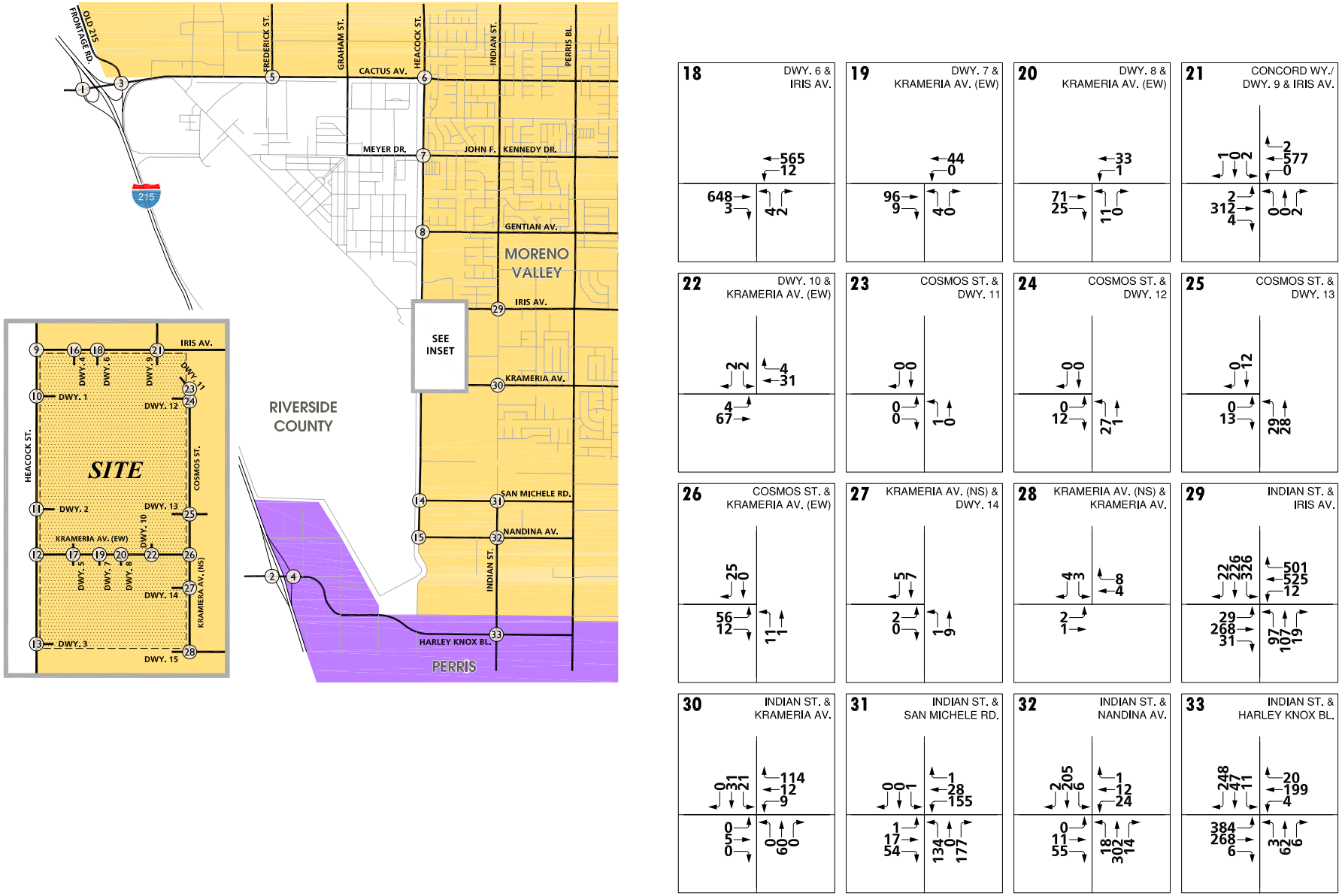
FIGURE 4.11-31
Opening Year (2016) With Project (E+A+P) Average Daily Traffic (ADT)



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-32A

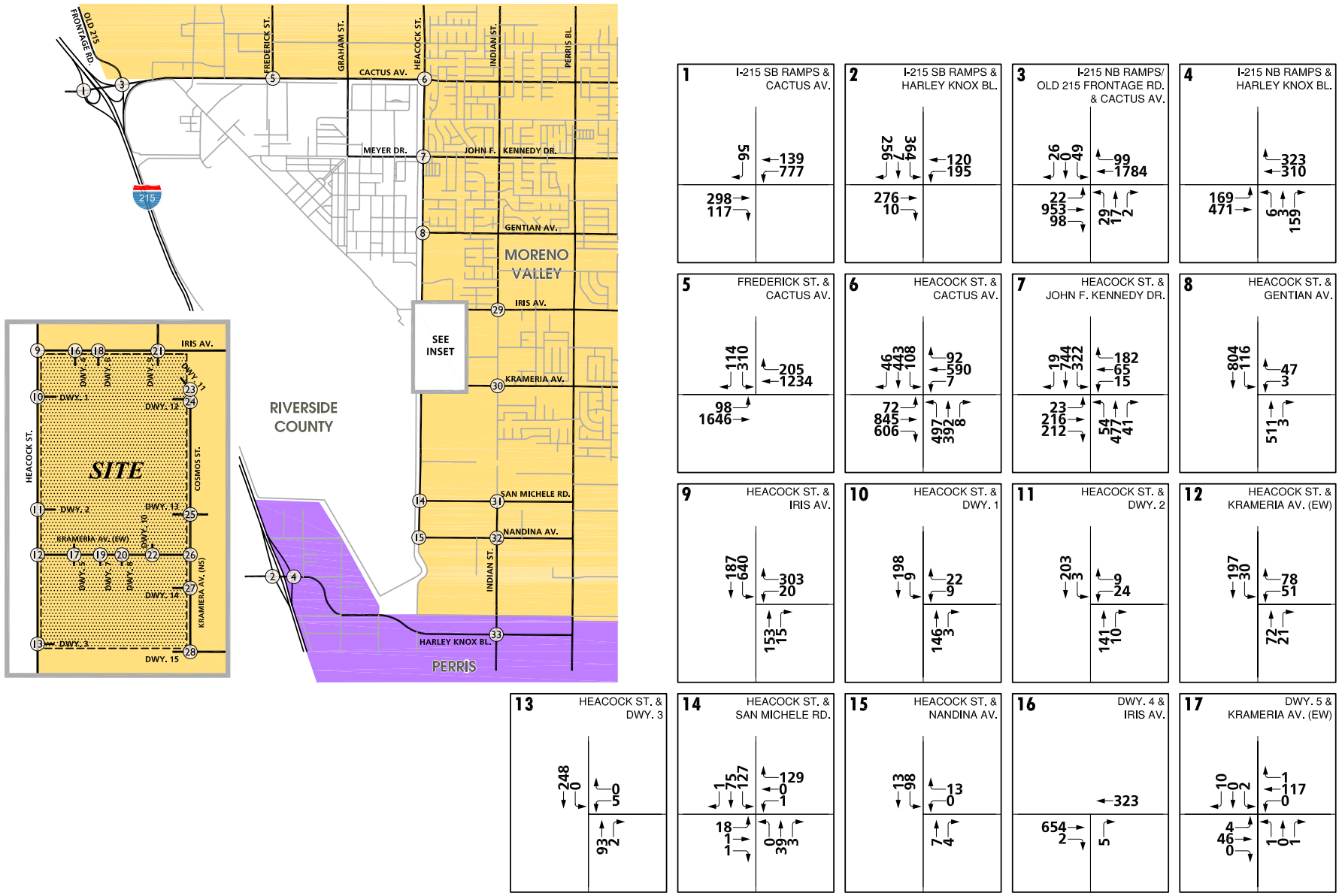
Opening Year (2016) With Project (E+A+P) AM Peak Hour Intersection Volumes (1 of 2)



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-32B

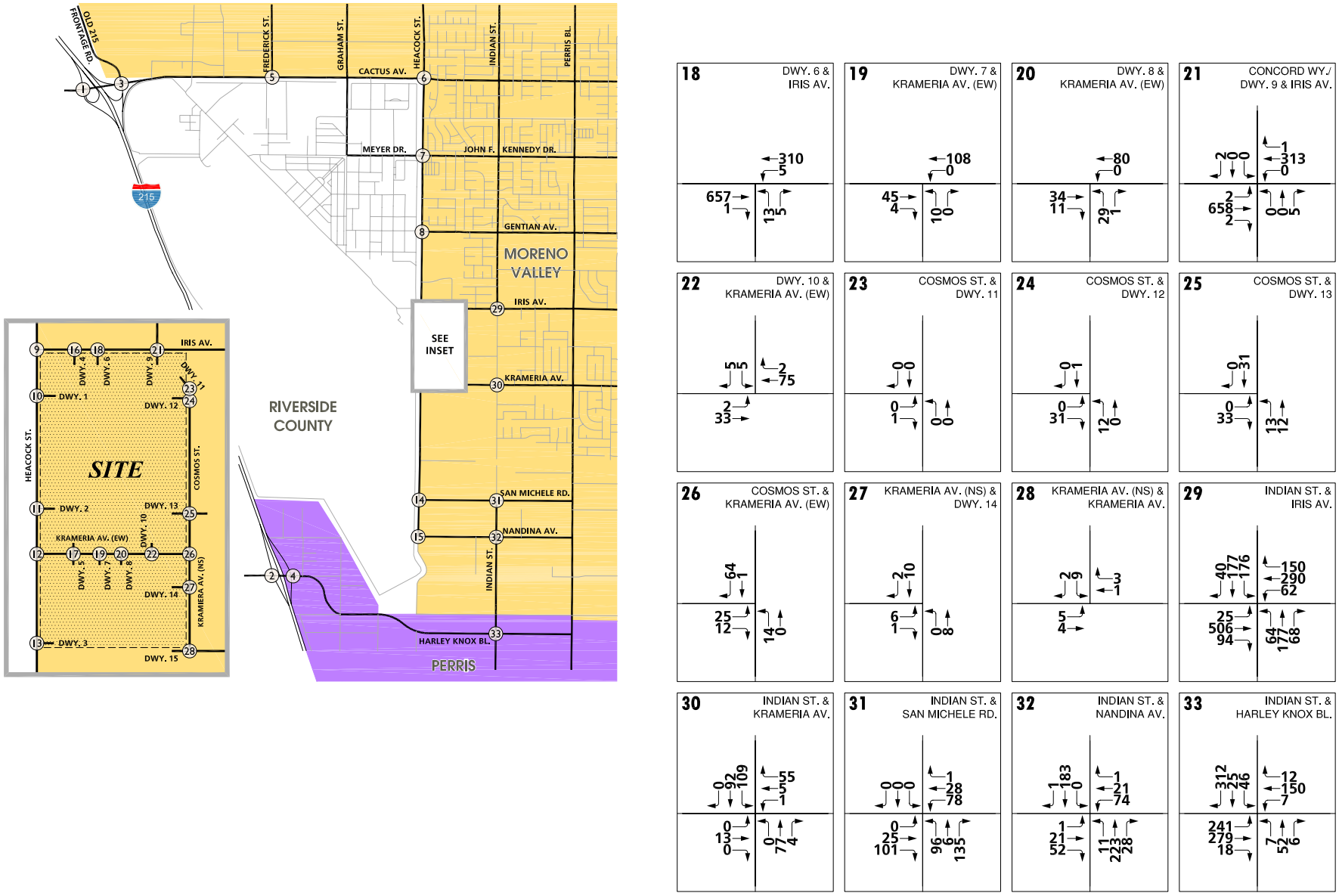
Opening Year (2016) With Project (E+A+P) AM Peak Hour Intersection Volumes (2 of 2)



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-33A

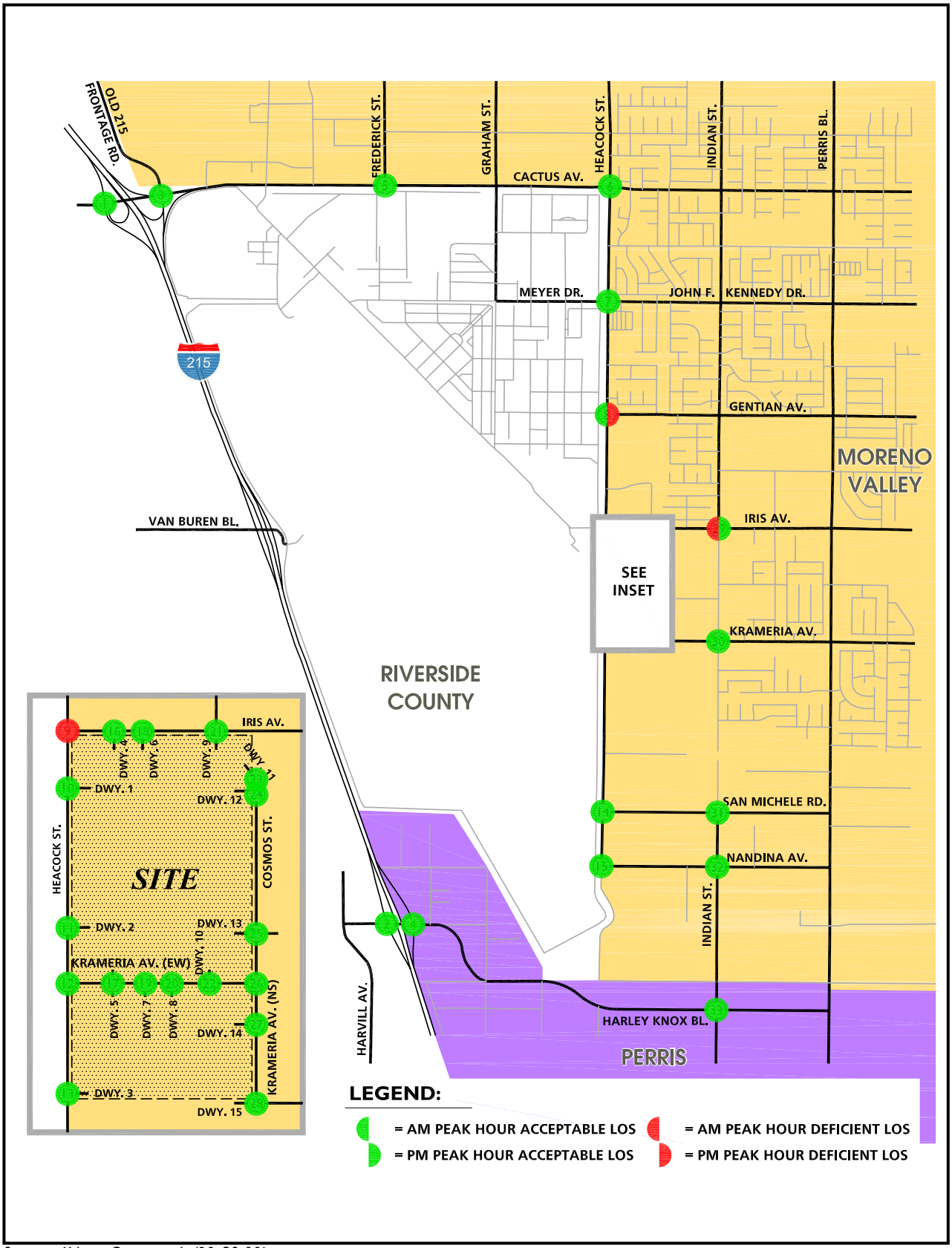
Opening Year (2016) With Project (E+A+P) PM Peak Hour Intersection Volumes (1 of 2)



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-33B

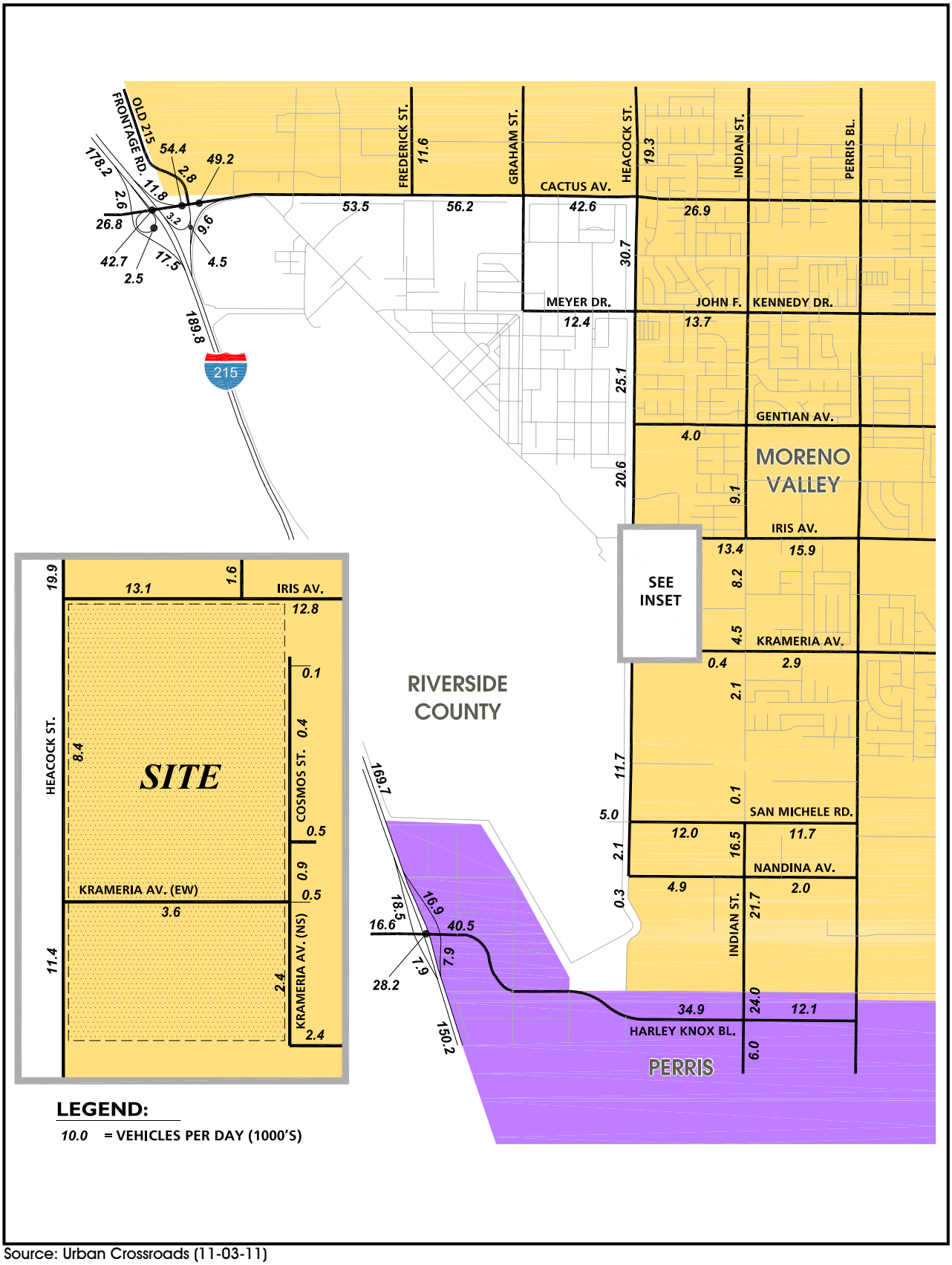
Opening Year (2016) With Project (E+A+P) PM Peak Hour Intersection Volumes (2 of 2)



Source: Urban Crossroads (11-03-11)

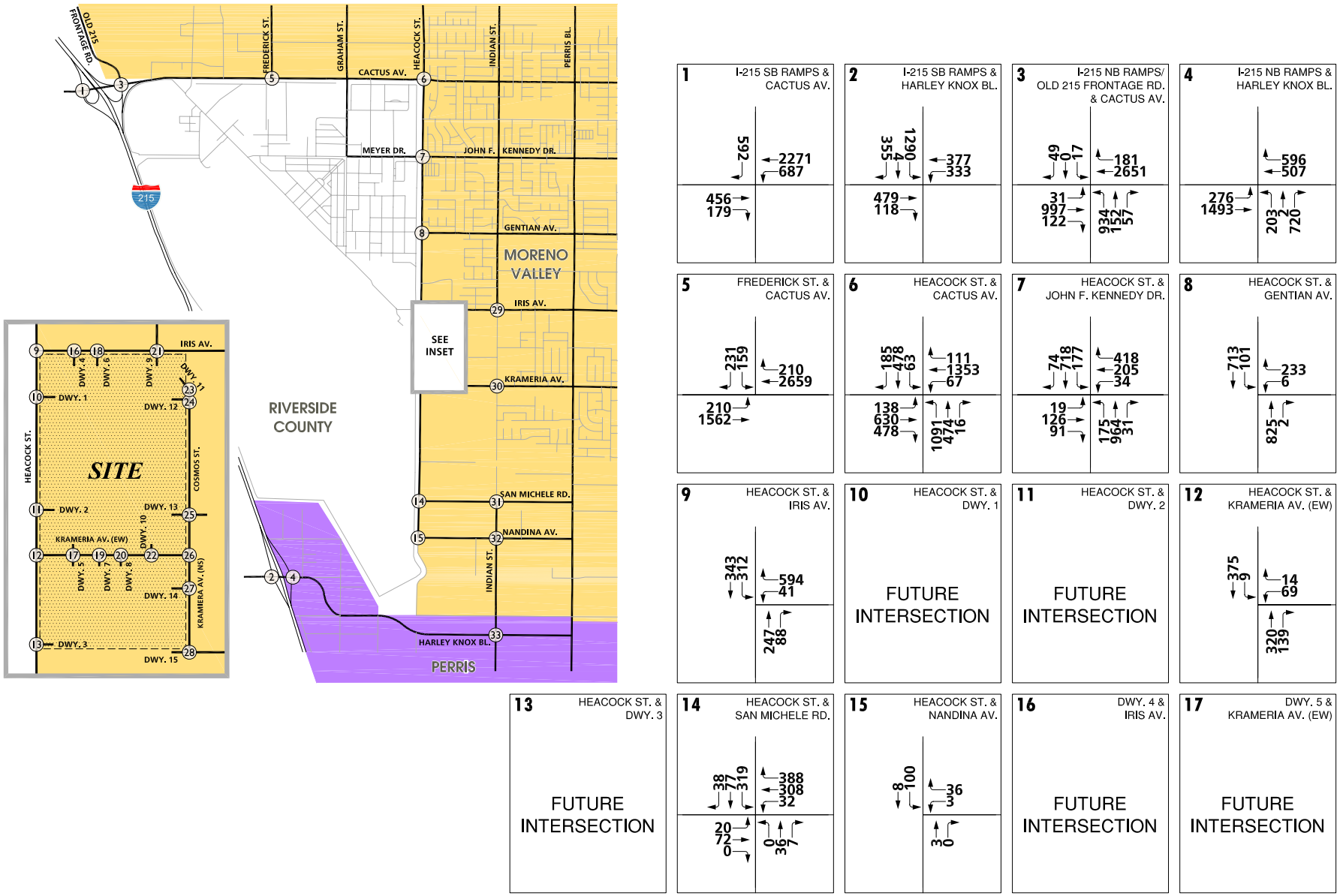
FIGURE 4.11-34

Opening Year (2016) With Project (E+A+P)
Peak Hour Intersection Level of Service (LOS)



Source: Urban Crossroads (11-03-11)

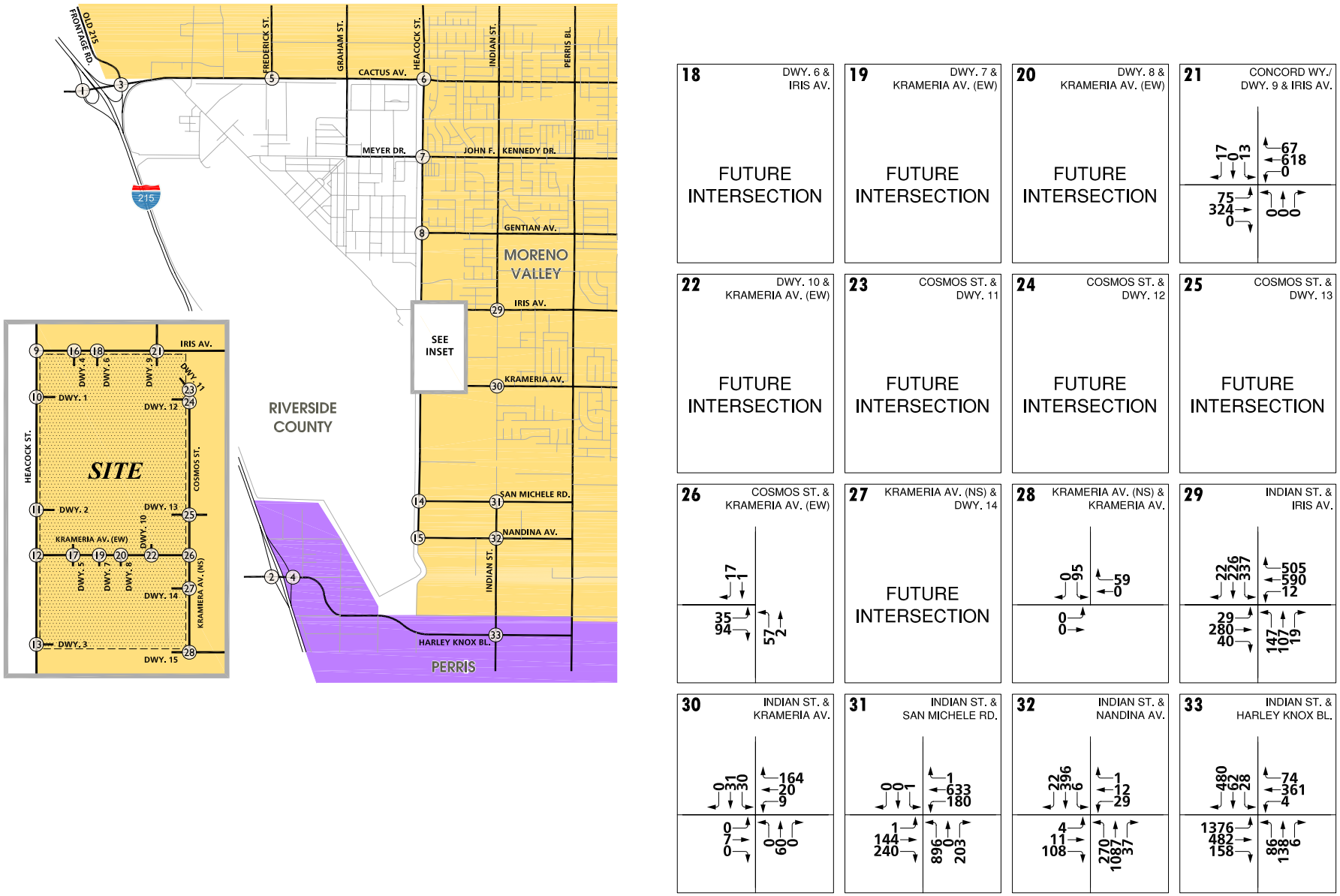
FIGURE 4.11-35
Horizon Year (2016) Without Project (E+A+C) Average Daily Traffic (ADT)



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-36A

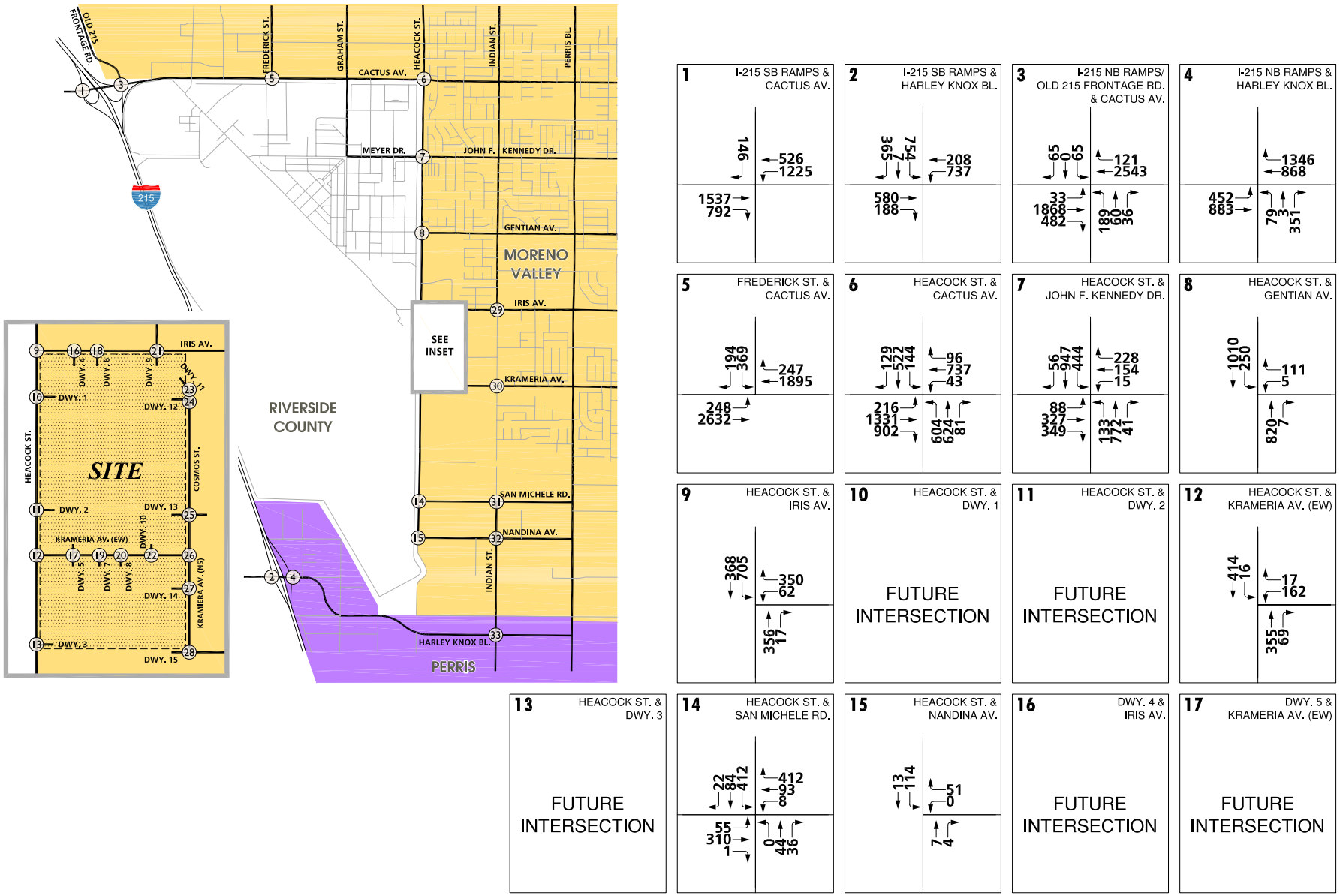
Horizon Year (2016) Without Project (E+A+C) AM Peak Hour Intersection Volume (1 of 2)



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-36B

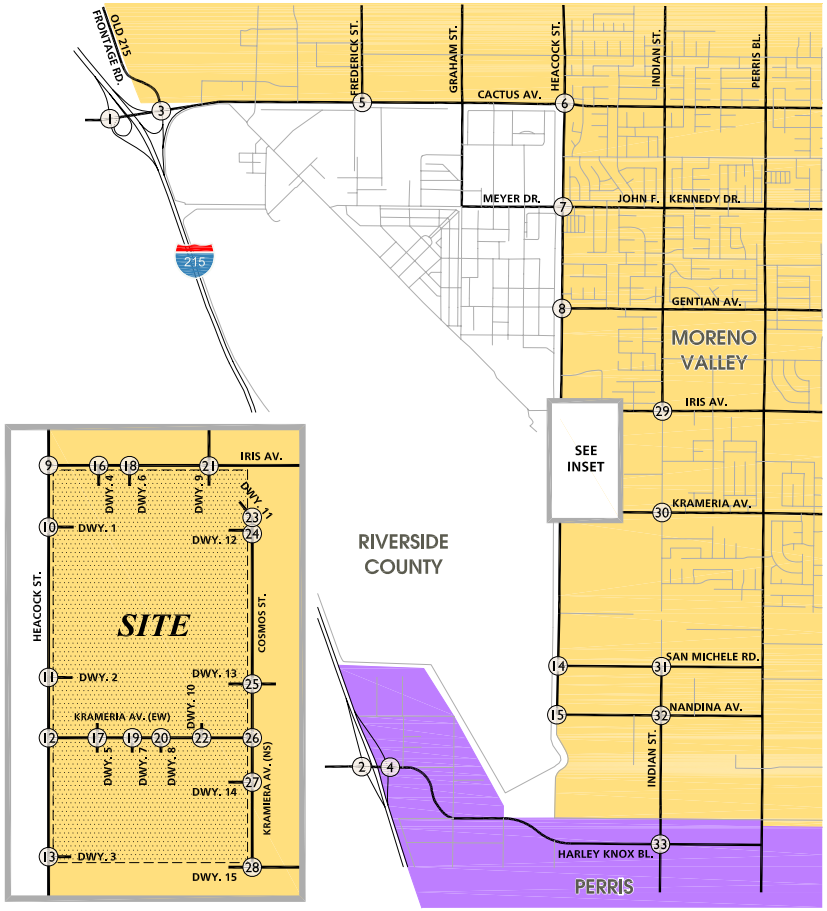
Horizon Year (2016) Without Project (E+A+C) AM Peak Hour Intersection Volumes (2 of 2)

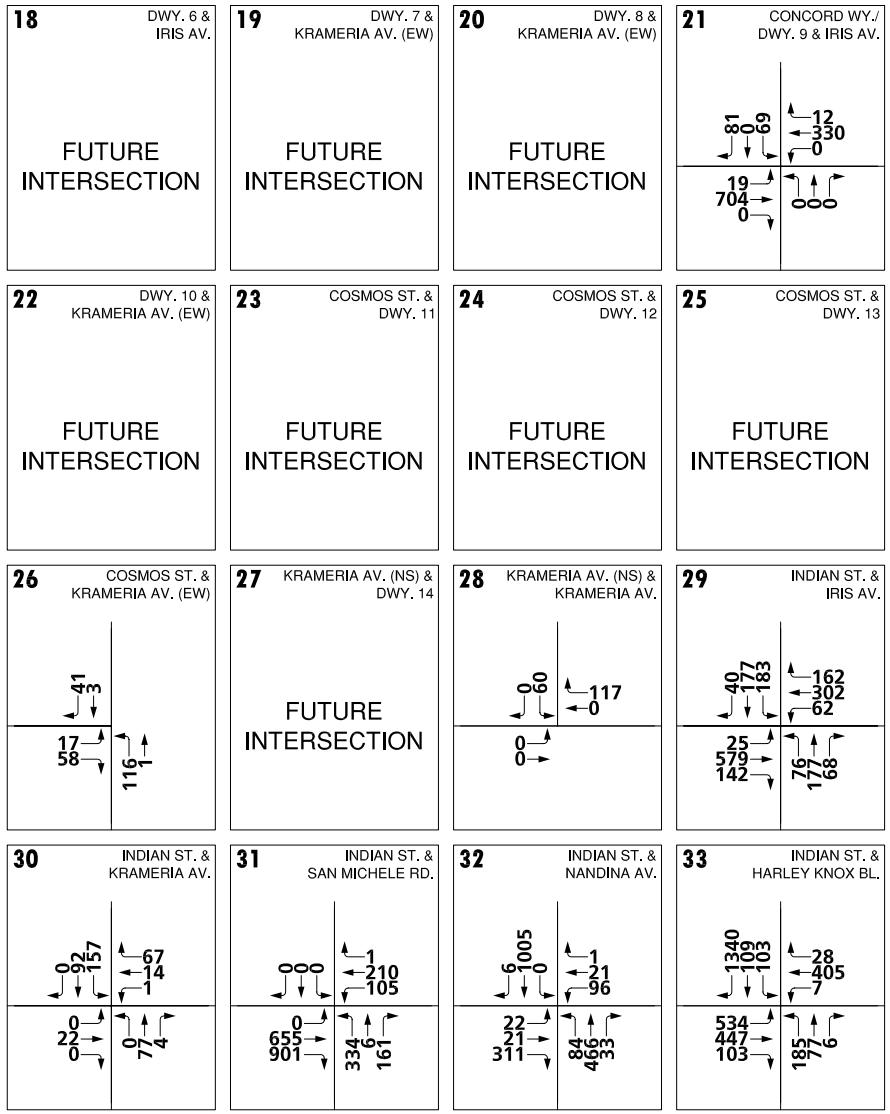


Source: Urban Crossroads (11-03-11)

FIGURE 4.11-37A

Horizon Year (2016) Without Project (E+A+C) PM Peak Hour Intersection Volumes (1 of 2)

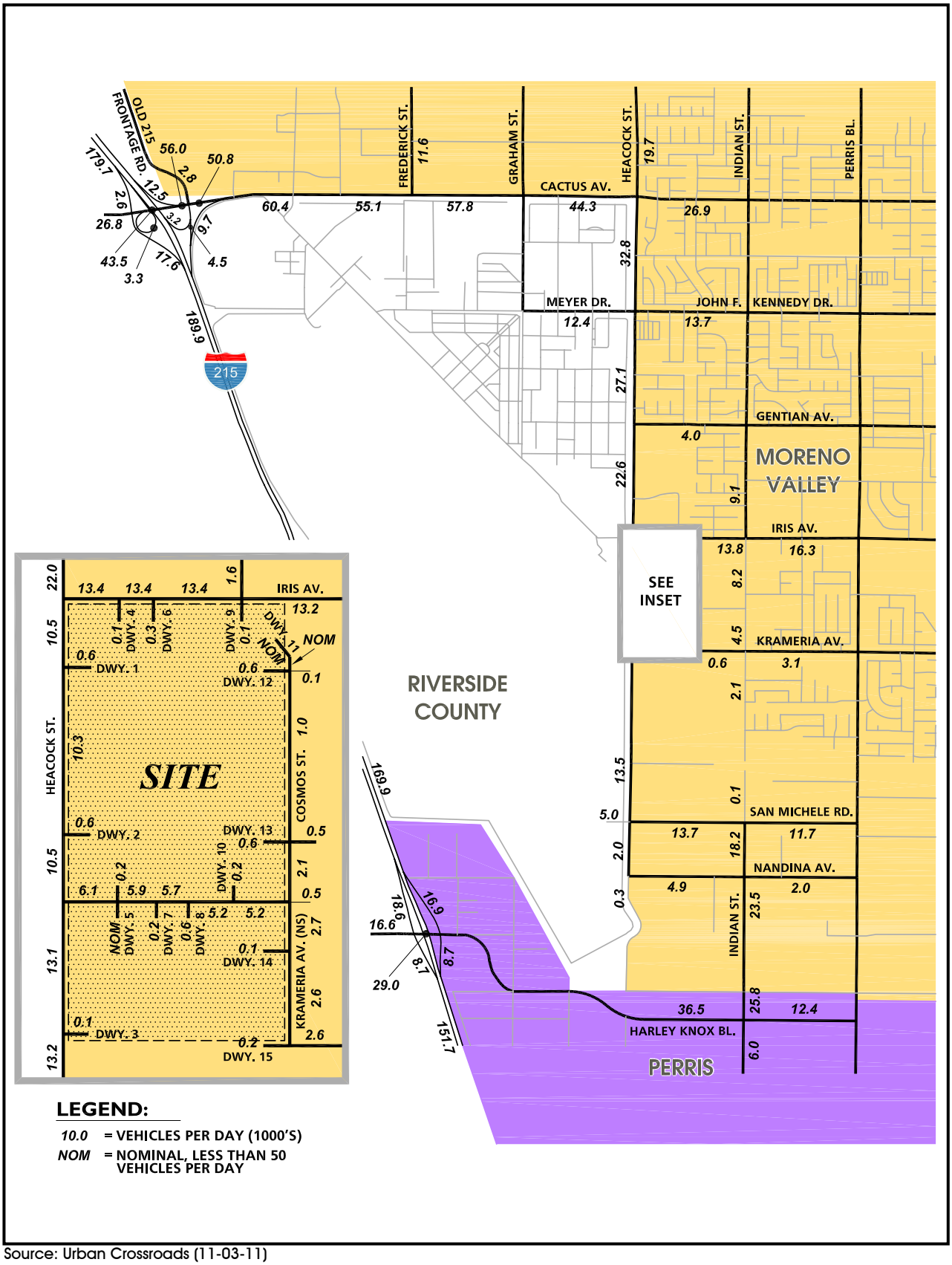




Source: Urban Crossroads (11-03-11)

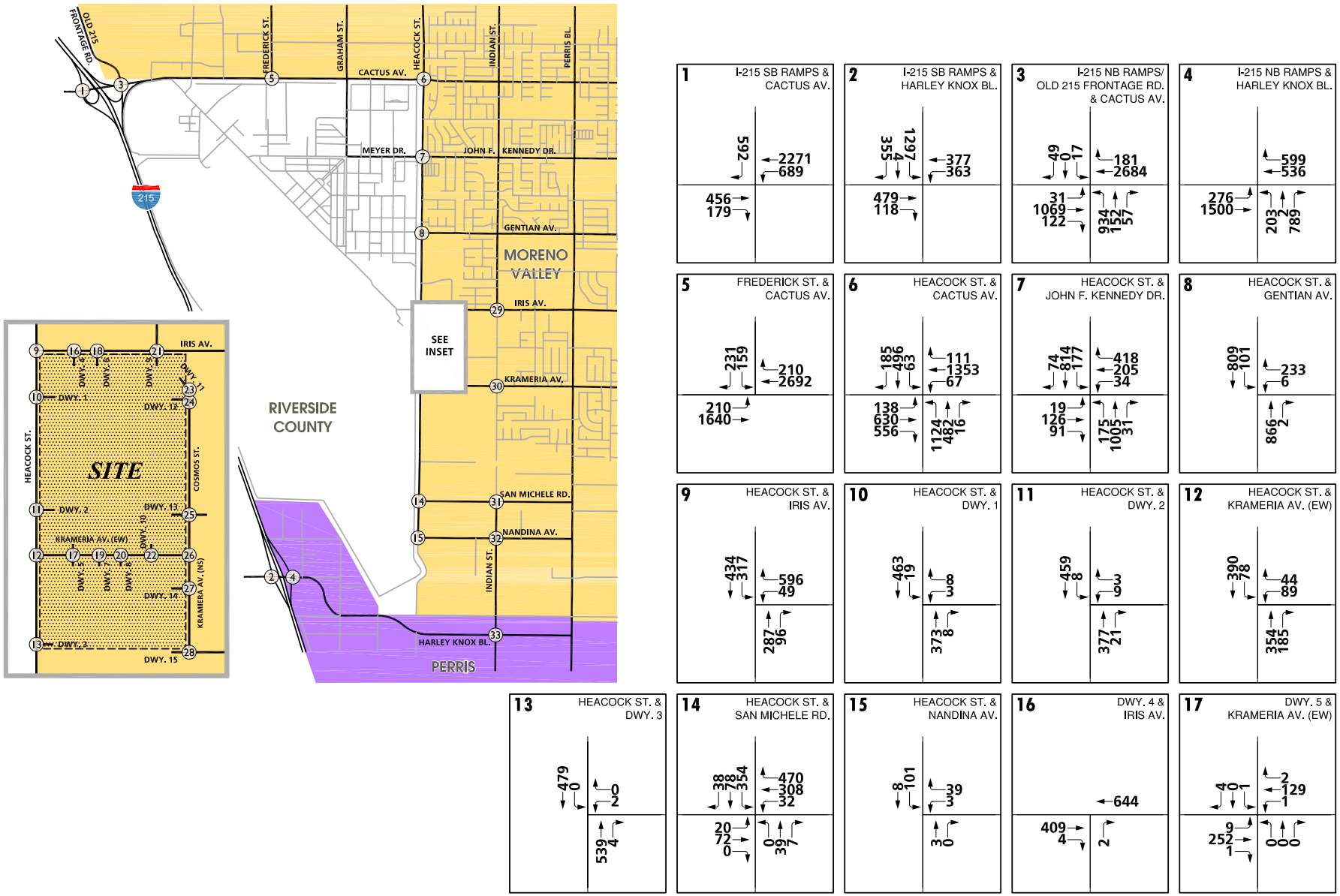
FIGURE 4.11-37B

Horizon Year (2016) Without Project (E+A+C) PM Peak Hour Intersection Volumes (2 of 2)



Source: Urban Crossroads (11-03-11)

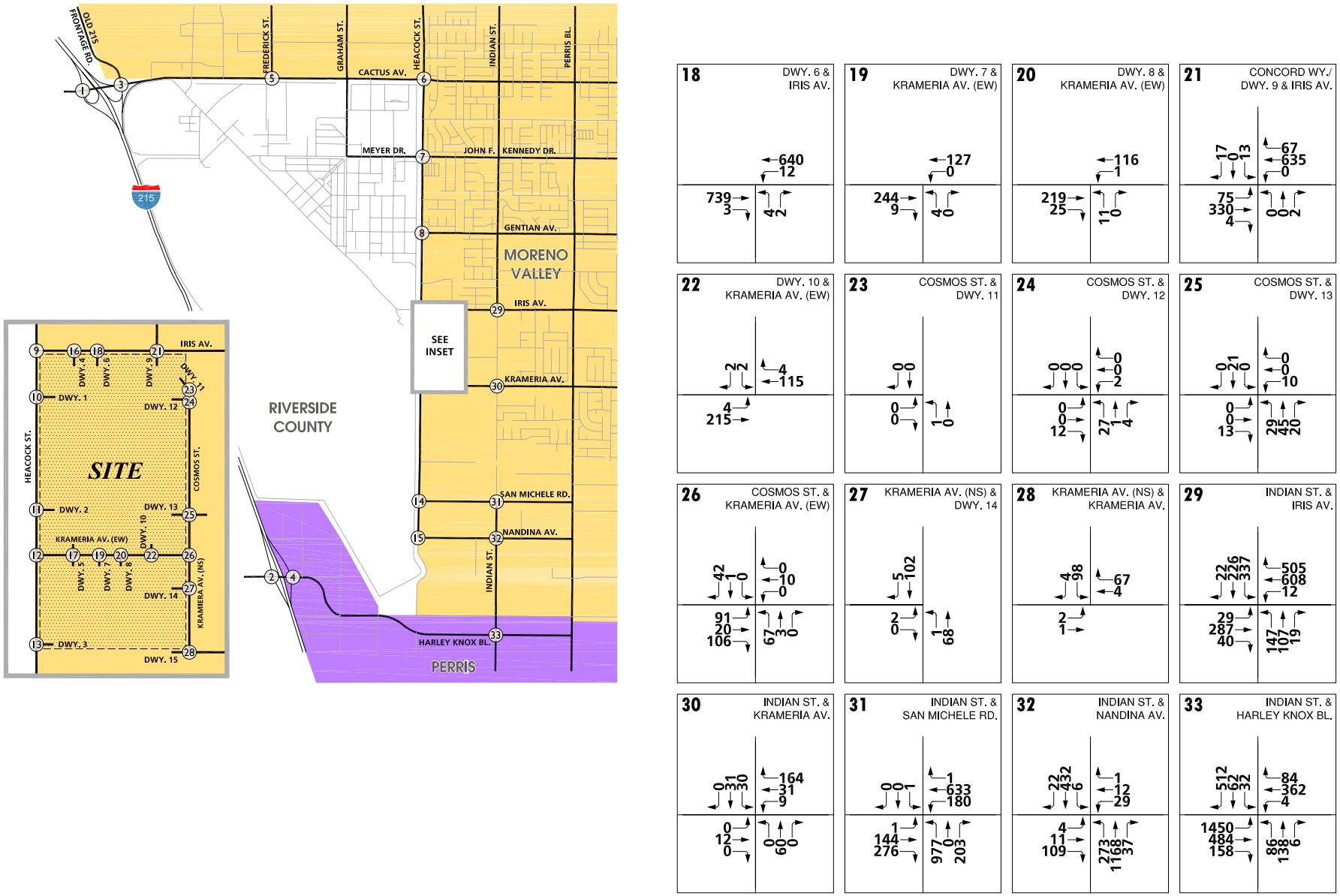
FIGURE 4.11-38
Horizon Year (2016) With Project (E+A+C+P) Average Daily Traffic (ADT)



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-39A

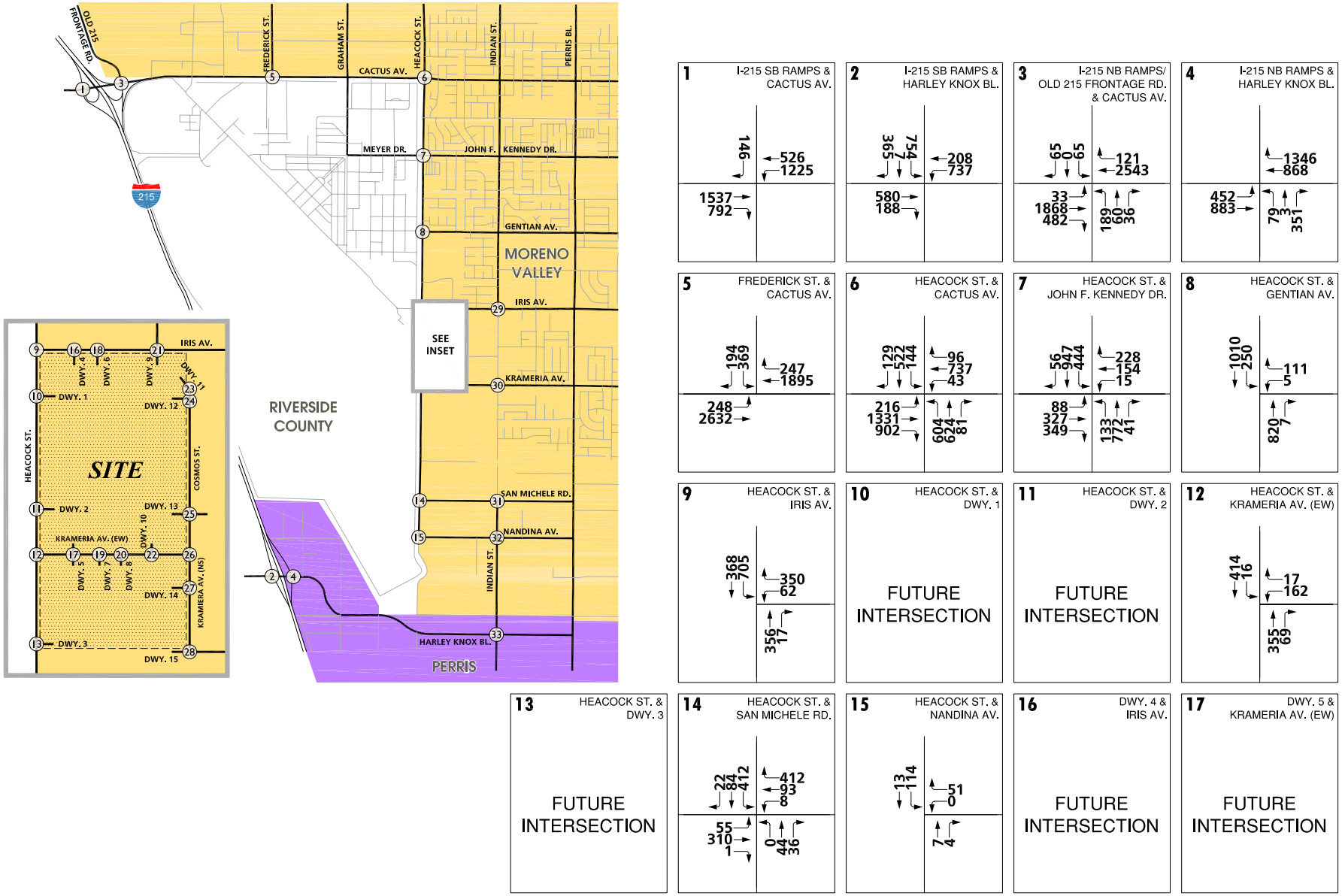
Horizon Year (2016) With Project (E+A+C+P) AM Peak Hour Intersection Volumes (1 of 2)



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-39B

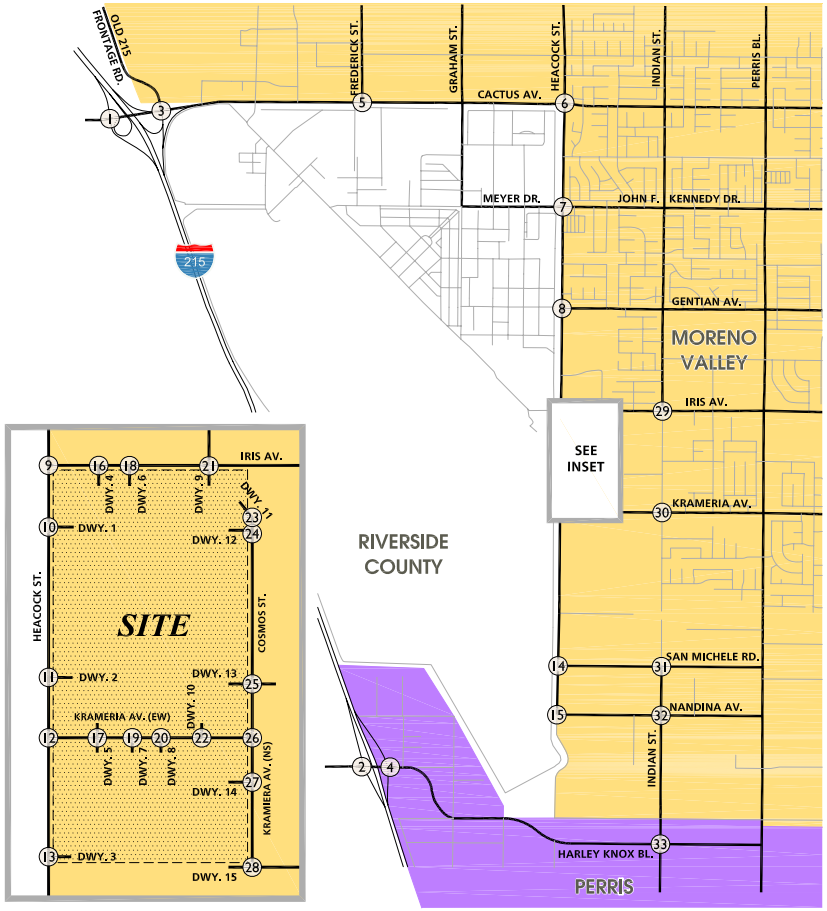
Horizon Year (2016) With Project (E+A+C+P) AM Peak Hour Intersection Volumes (2 of 2)

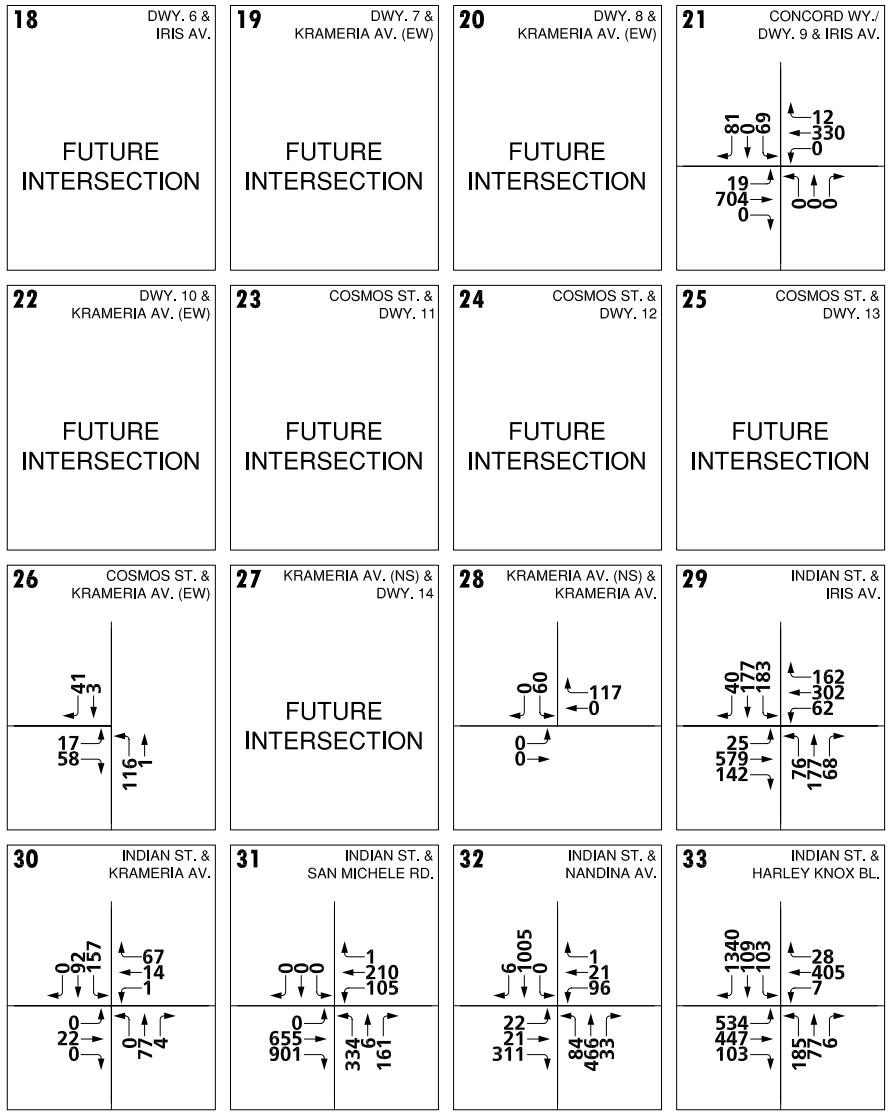


Source: Urban Crossroads (11-03-11)

FIGURE 4.11-40A

Horizon Year (2016) With Project (E+A+C+P) PM Peak Hour Intersection Volumes (1 of 2)

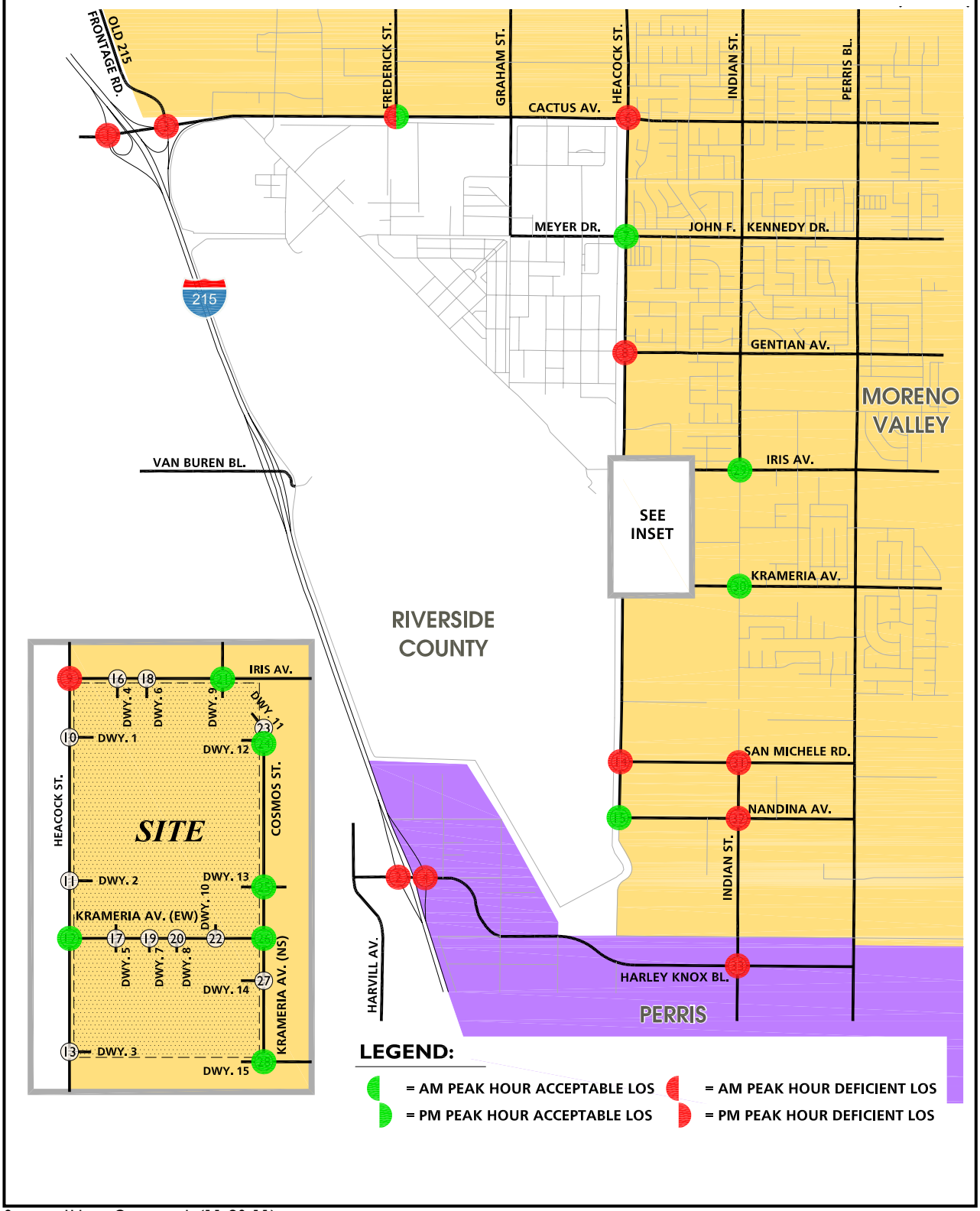




Source: Urban Crossroads (11-03-11)

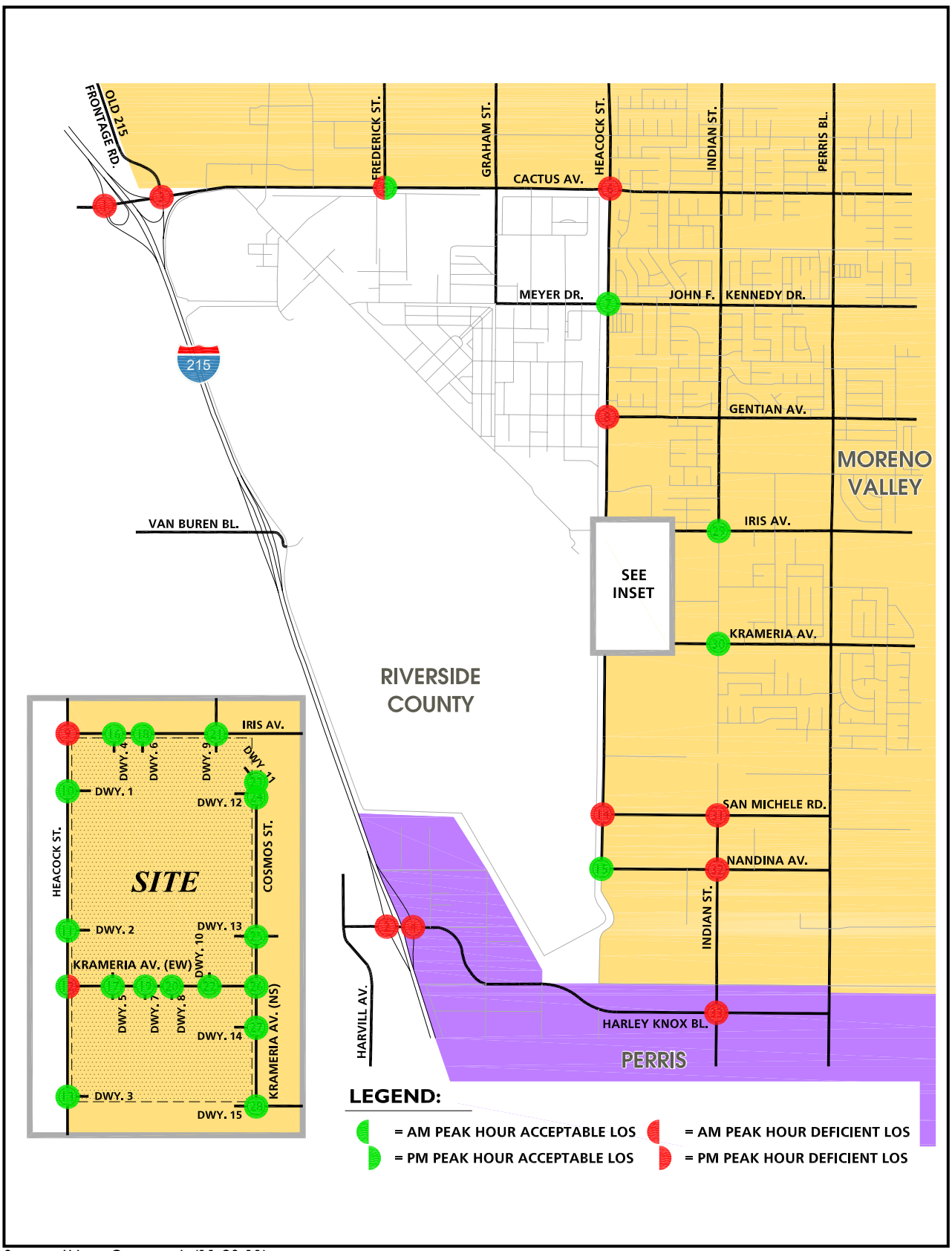
FIGURE 4.11-40B

Horizon Year (2016) With Project (E+A+C+P) PM Peak Hour Intersection Volumes (2 of 2)



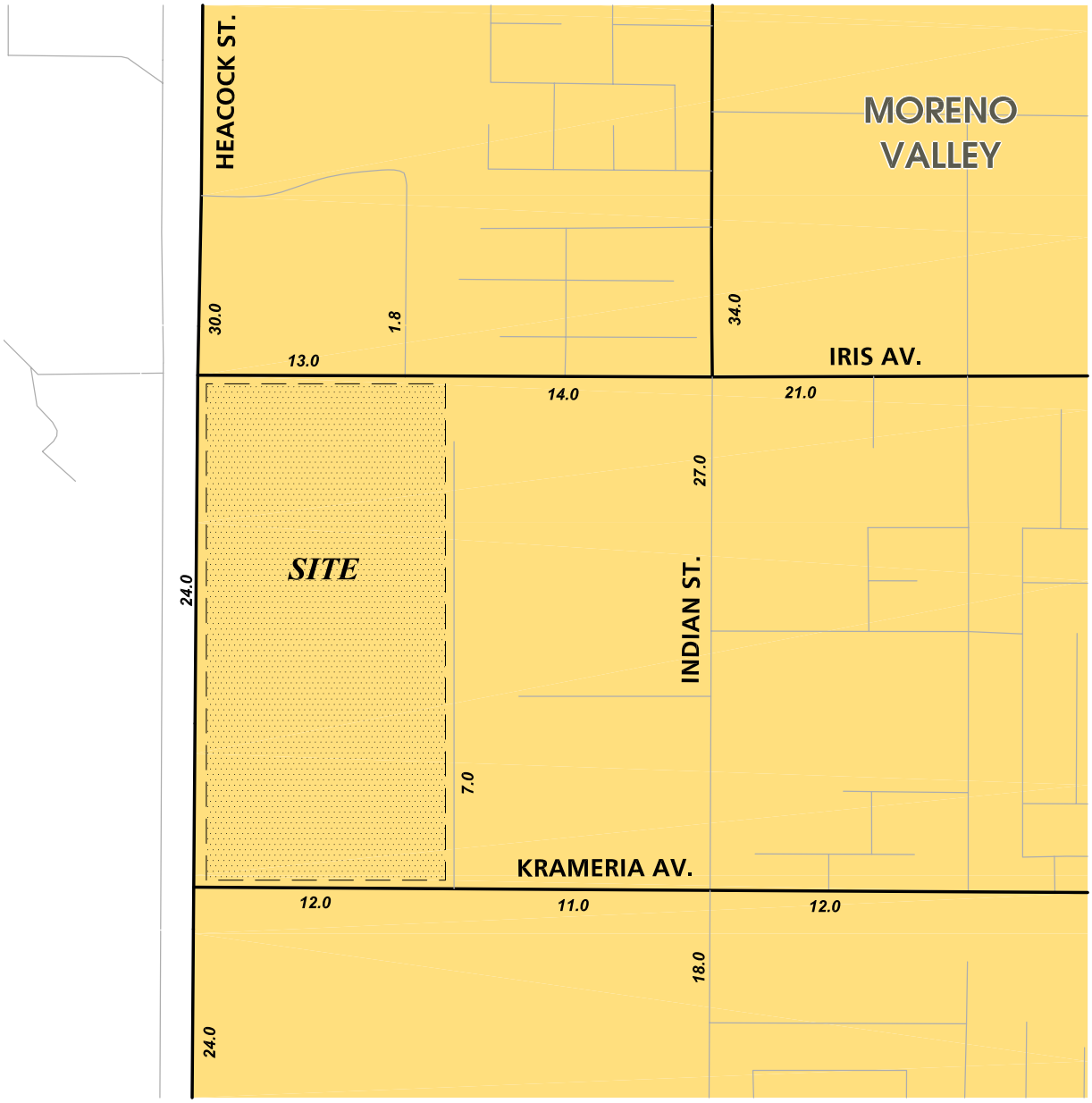
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-41
Horizon Year (2016) Without Project (E+A+C)
Peak Hour Intersection Level of Service (LOS)



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-42
Horizon Year (2016) With Project (E+A+C+P)
Peak Hour Intersection Lovel of Service (LOS)

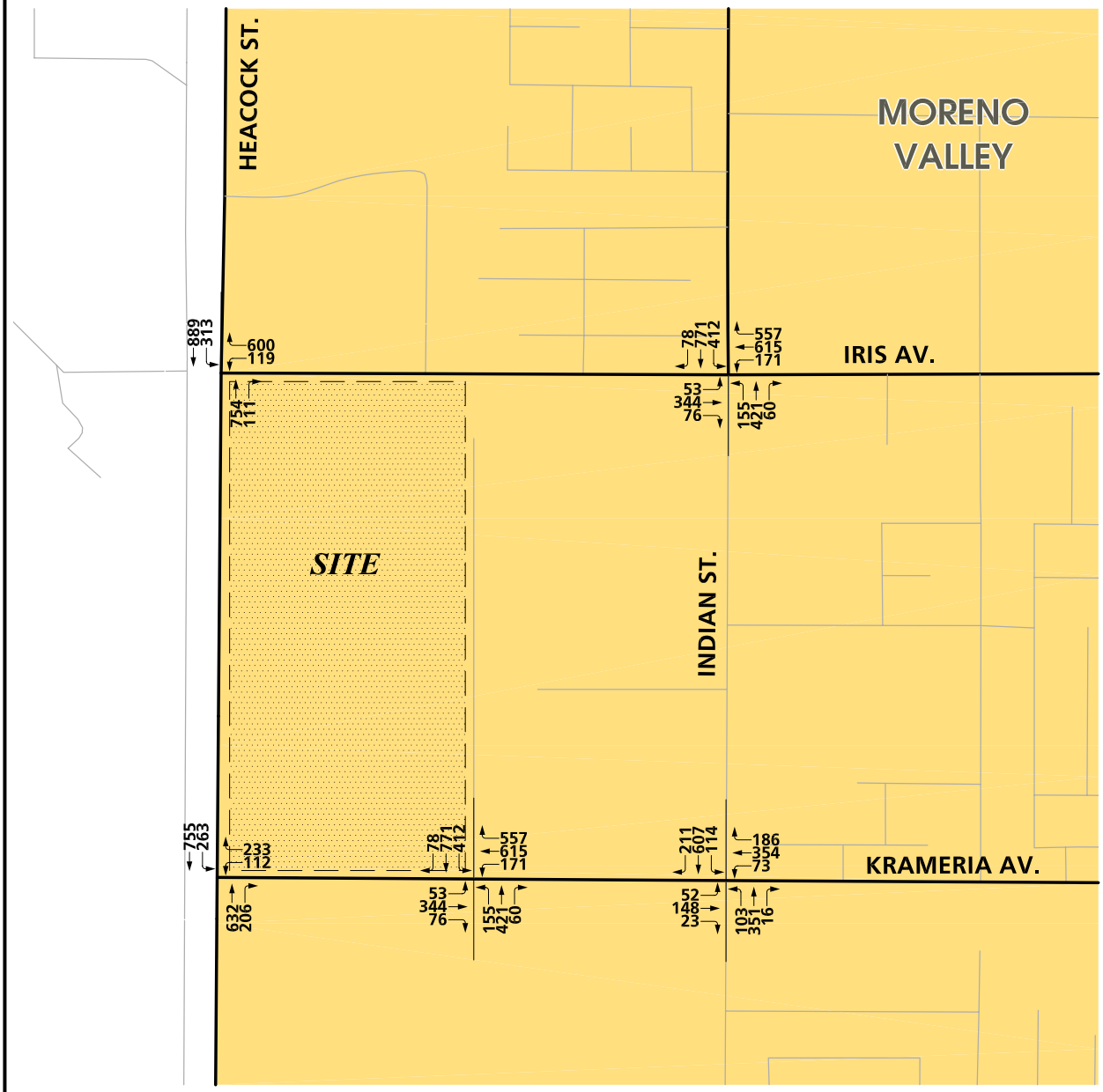


LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

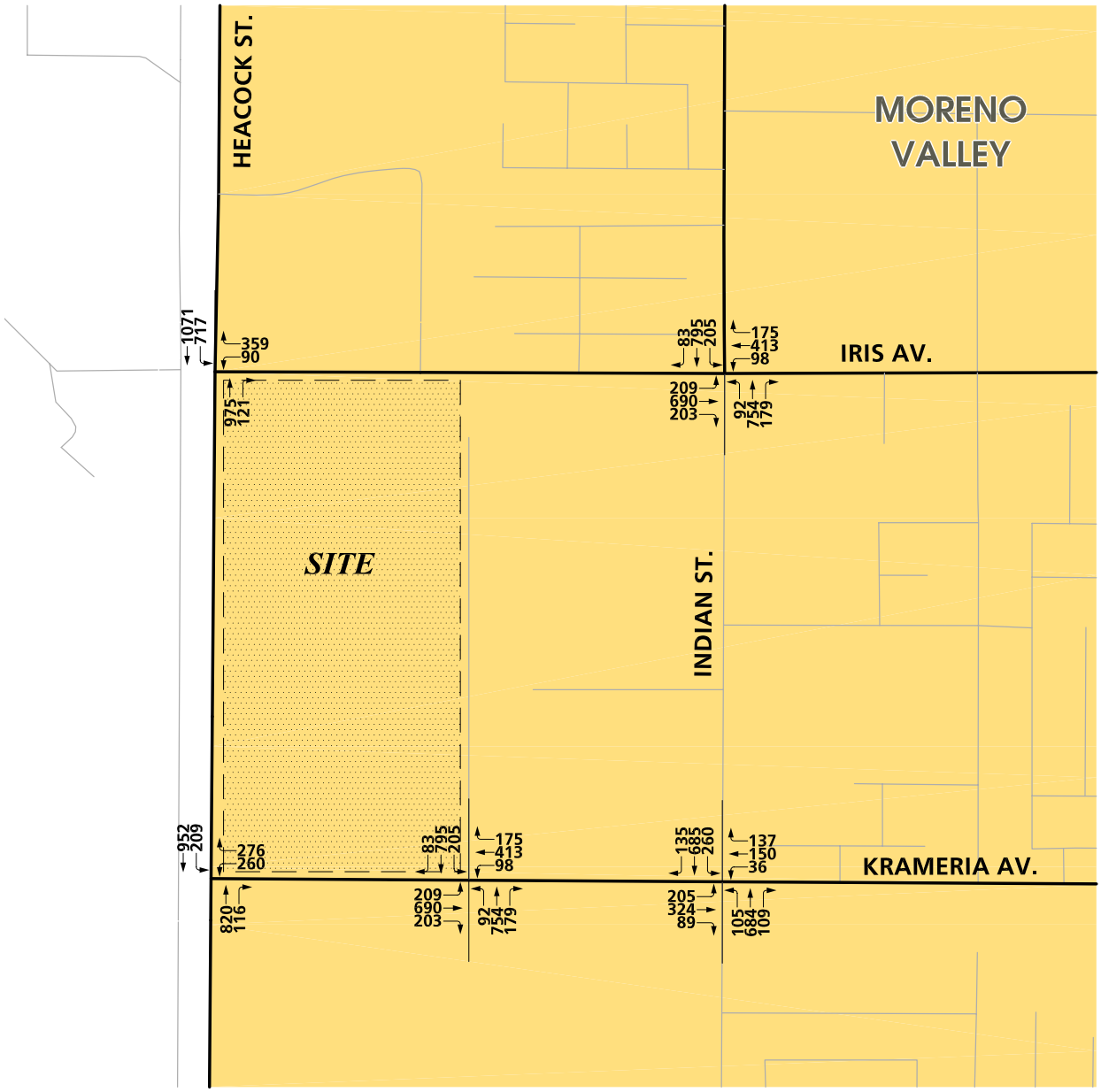
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-43
General Plan Buildout Without Project Average Daily Traffic (ADT)



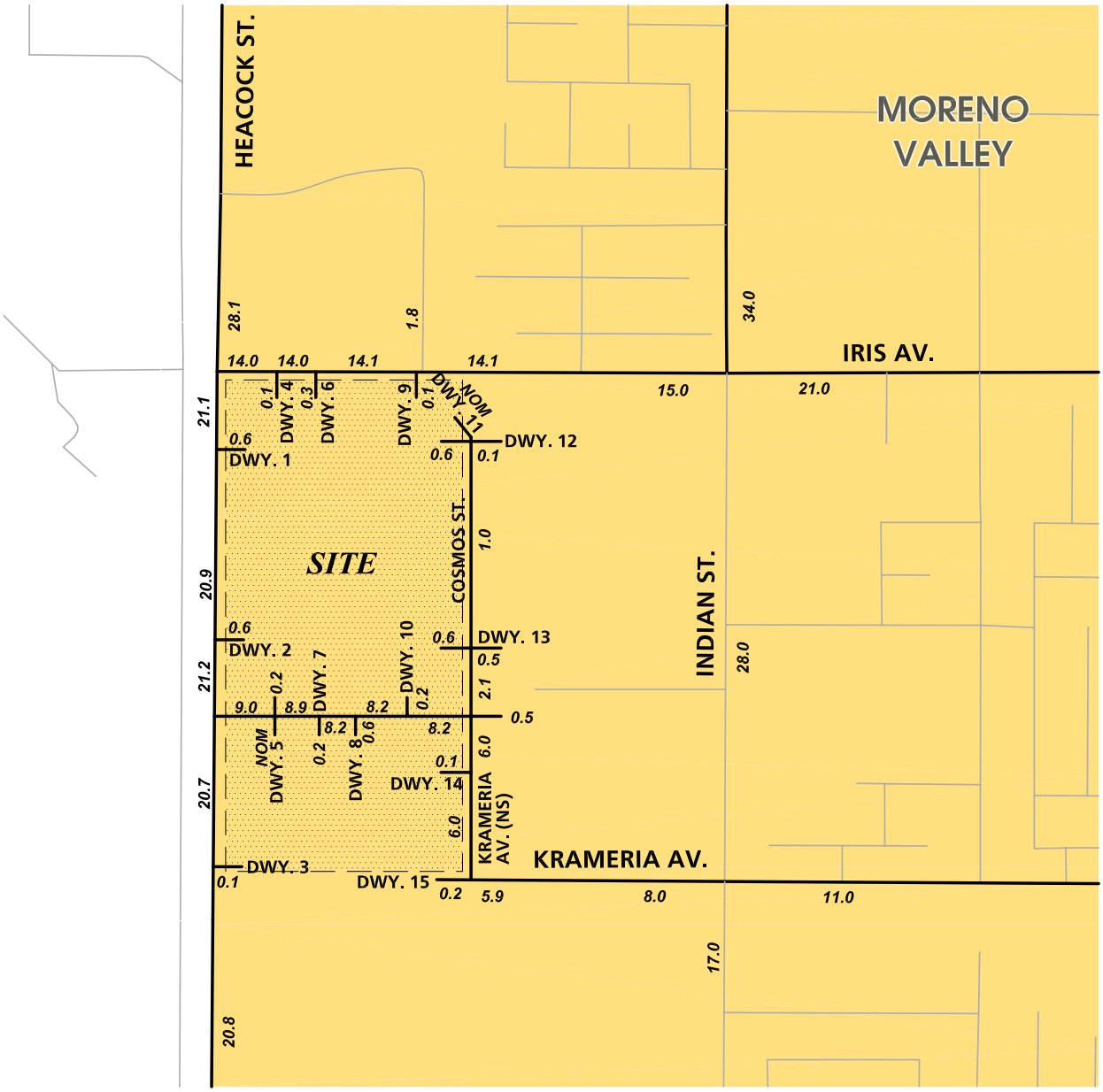
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-44
General Plan Buildout Without Project AM Peak Hour Intersection Volumes



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-45
General Plan Buildout Withour Project PM Peak Hour Intersection Volumes

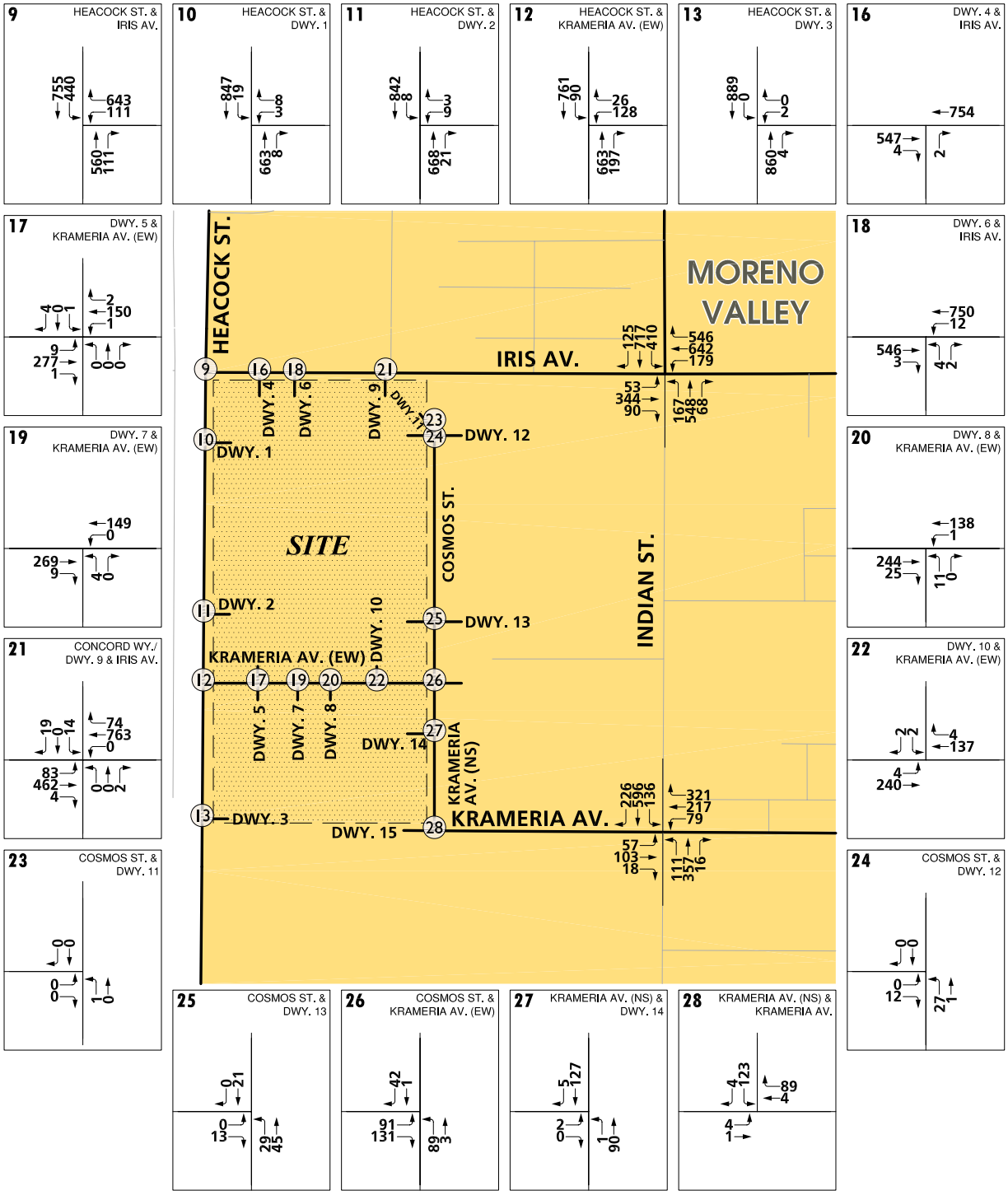


LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

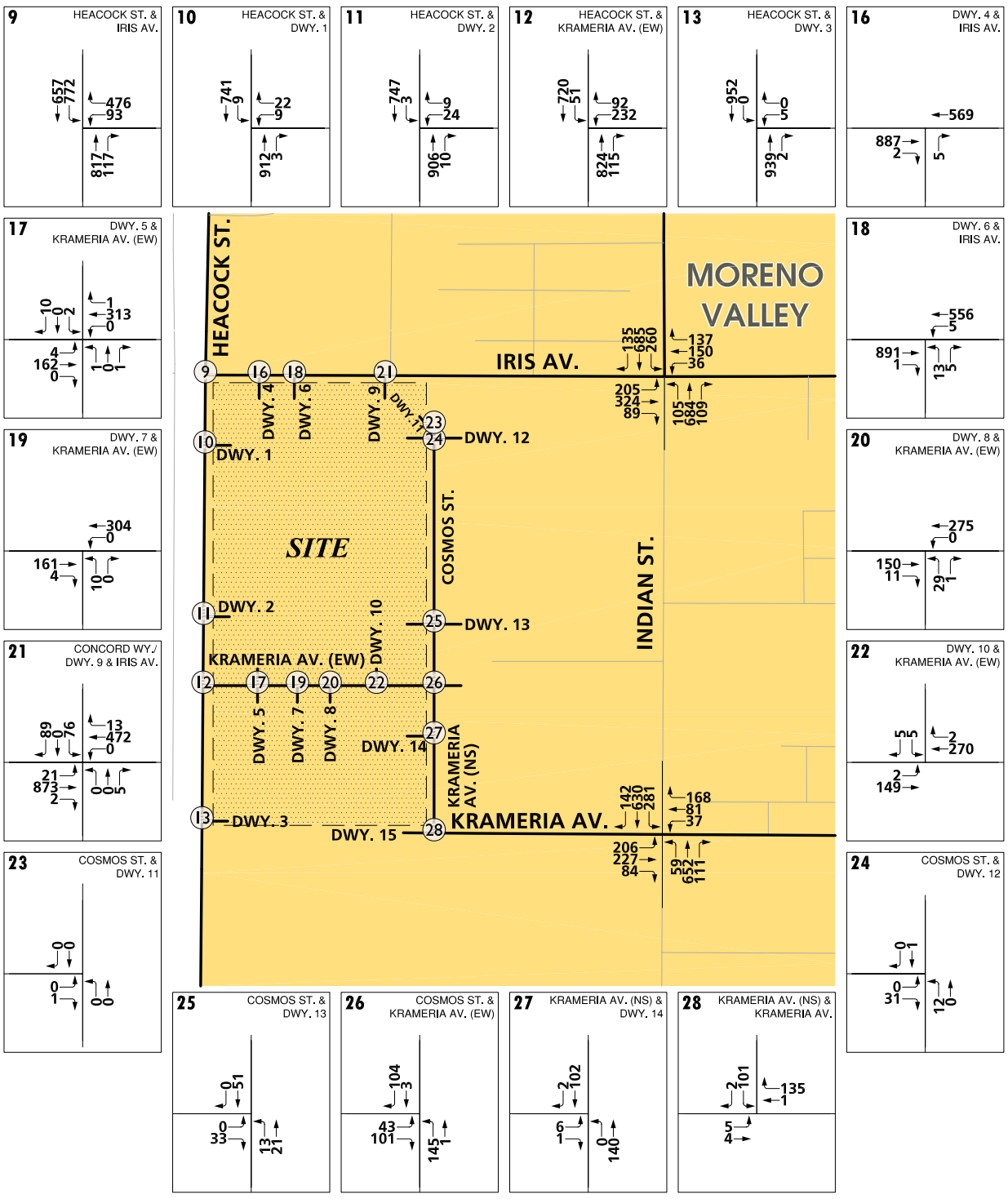
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-46
General Plan Buildout With Project Average Daily Traffic (ADT)



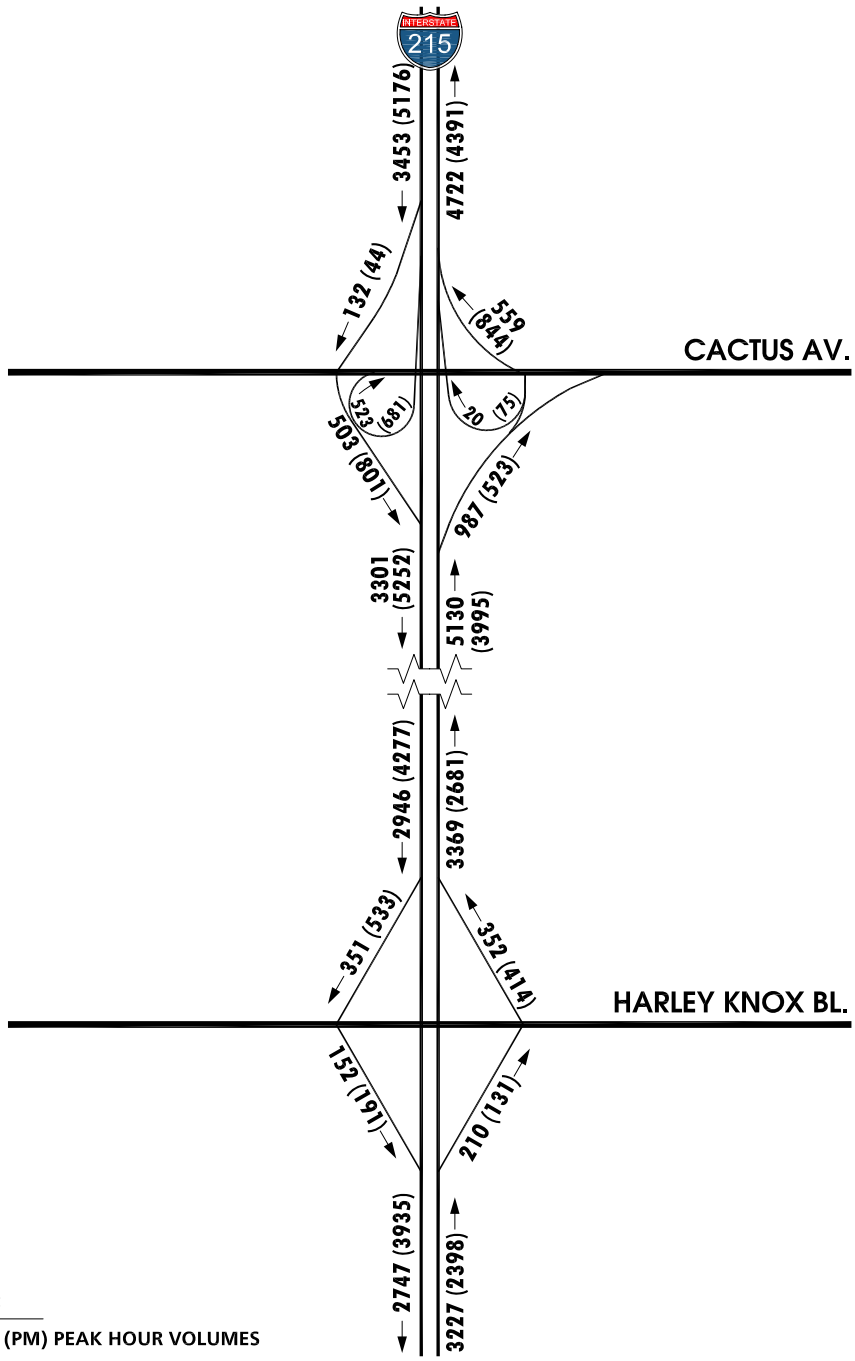
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-47
General Plan Buildout With Project AM Peak Hour Intersection Volumes



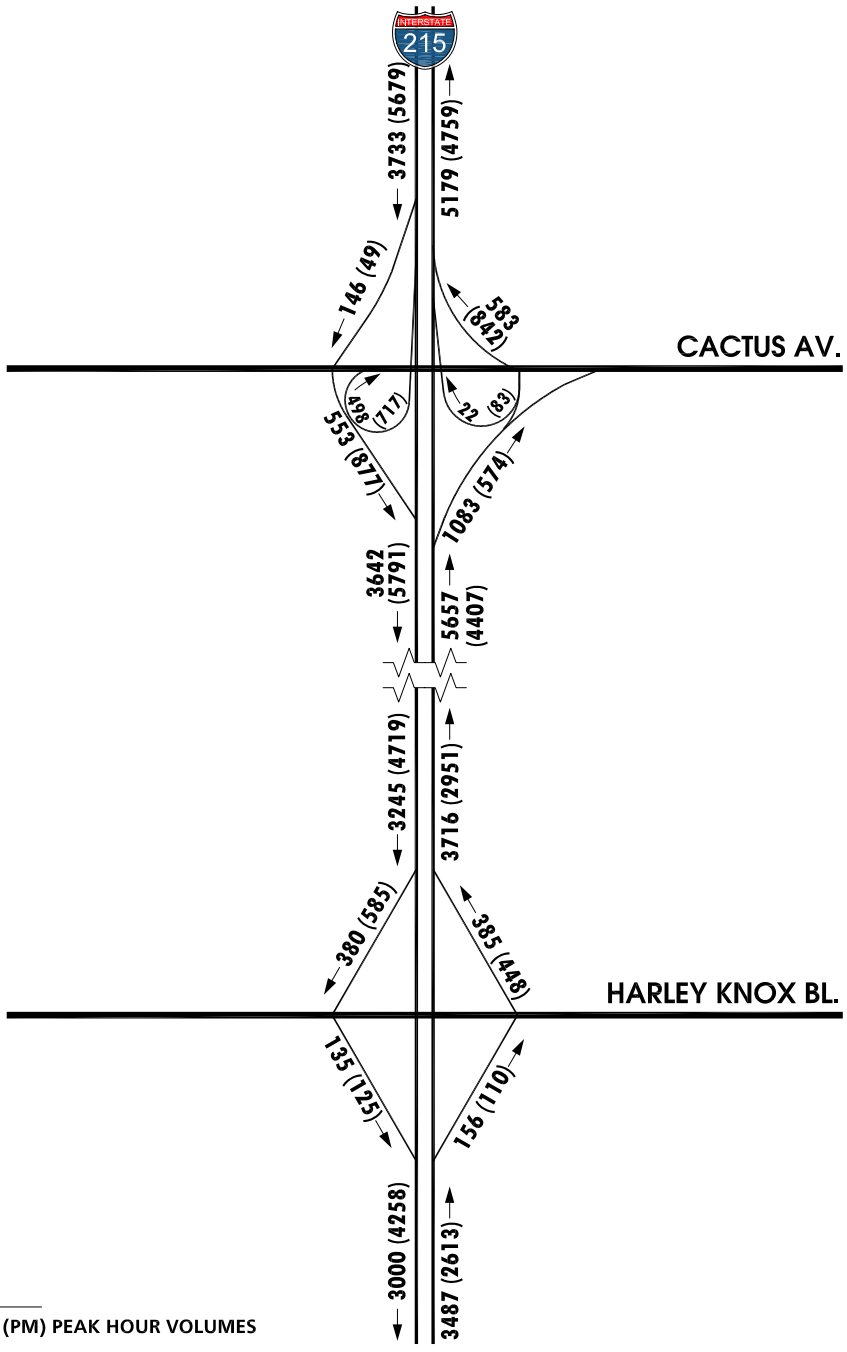
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-48
General Plan Buildout With Project PM Peak Hour Intersection Volumes



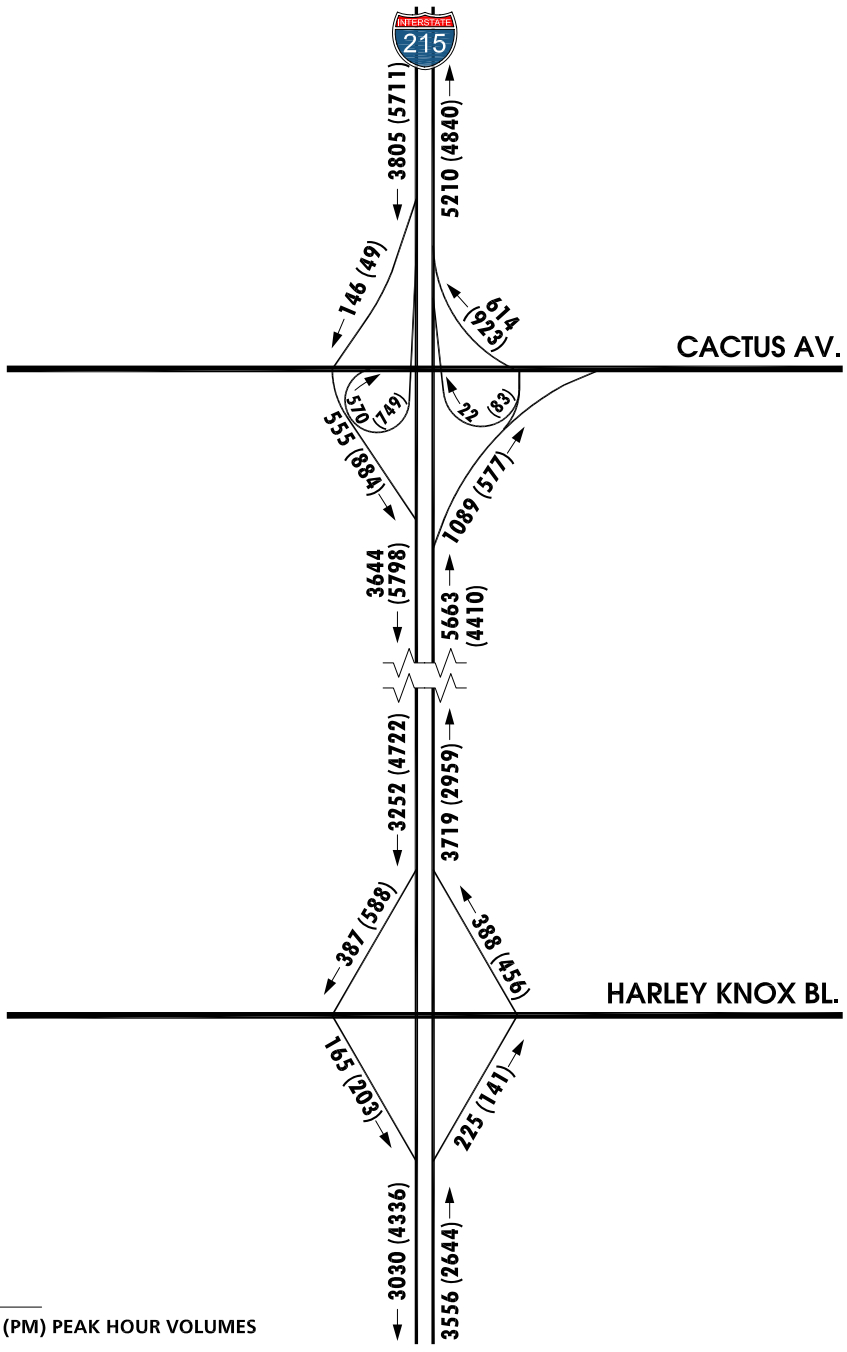
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-49
Existing Plus Project (E+P) I-215 Freeway Mainline Volumes



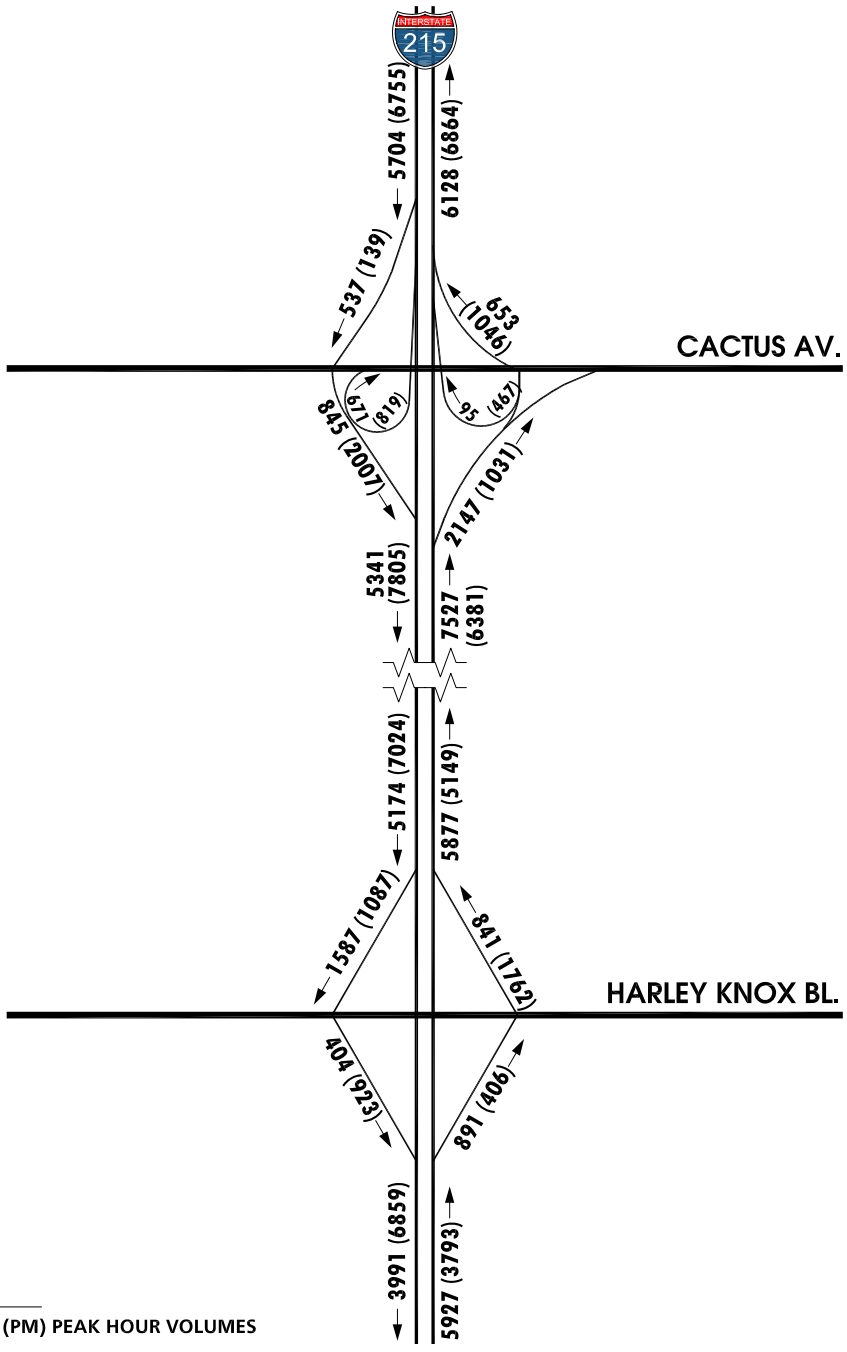
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-50
Opening Year (2016) Without Project (E+A) I-215 Freeway Mainline Volumes



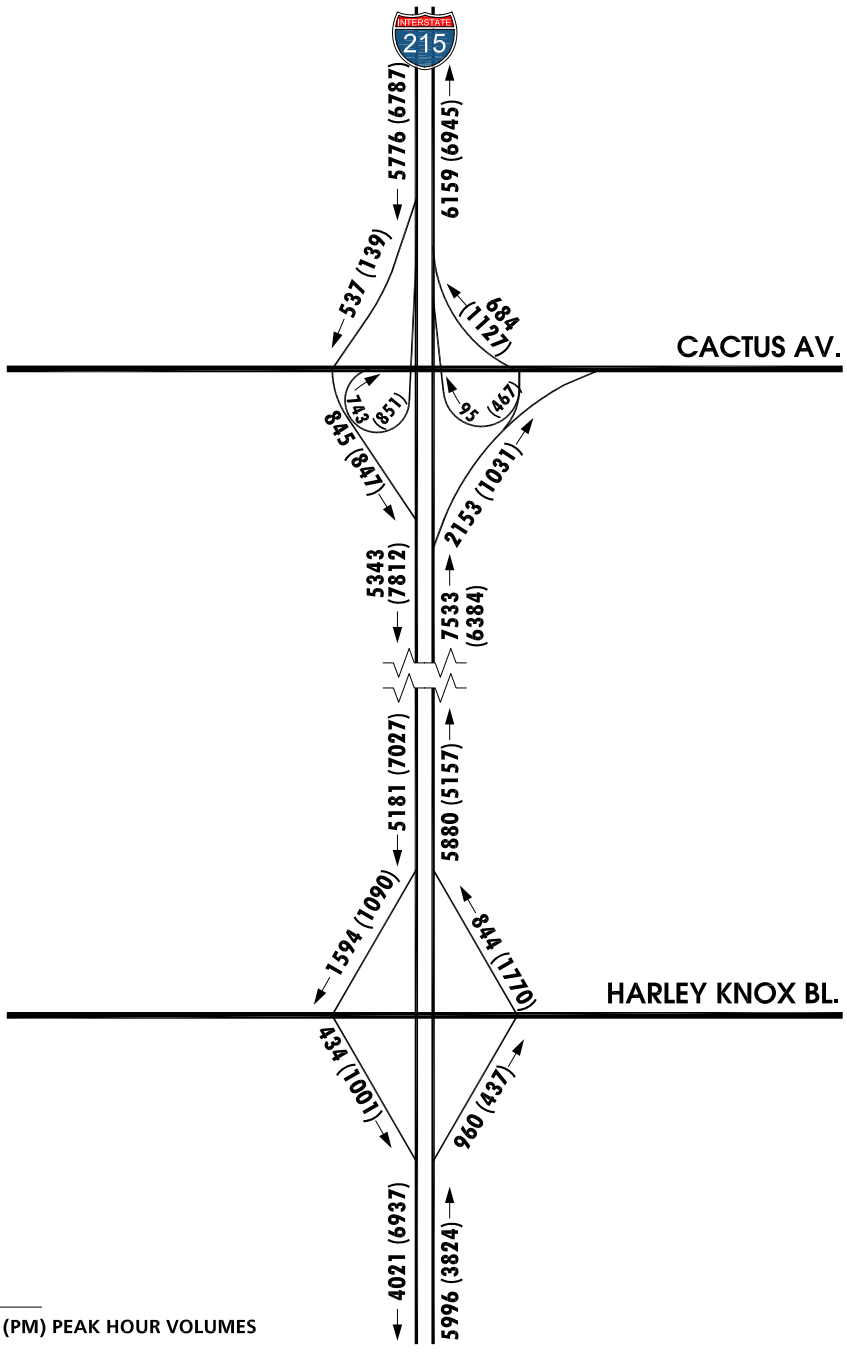
Source: Urban Crossroads (11-03-11)

FIGURE 4.11-51
Opening Year (2016) With Project (E+A+P) I-215 Freeway Mainline Volumes



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-52
Horizon Year (2016) Without Project (E+A+C) I-215 Freeway Mainline Volume



Source: Urban Crossroads (11-03-11)

FIGURE 4.11-53
Horizon Year (2016) With Project (E+A+C+P) I-215 Freeway Mainline Volume

4.12 UTILITIES AND SERVICE SYSTEMS

This subsection addresses the topics of water service and supply, wastewater collection and treatment, stormwater drainage management, and solid waste collection and disposal. The information contain herein is based in part on information contained in the "Water Supply Assessment for Tentative Parcel Map 35879," prepared by EMWD (May 14, 2008). A copy of this report is provided as *Technical Appendix K1* to this EIR. In addition, the analysis in this subsection is based on information contained within written correspondence received from EMWD staff (July 28, 2011), which is provided as *Technical Appendix K2* to this EIR. The analysis in this subsection also is based on information obtained from EMWD's 2005 Urban Water Management Plan (EMWD 2005b), EMWD's 2010 Urban Water Management Plan (EMWD 2011a), EMWD's Sewer System Management Plan (EMWD 2009b), RCFCWCD's Master Drainage Plans (RCFCWCD n.d.) and readily available information from the Riverside County Department of Waste Management and California Department of Resources Recycling and Recovery (CalRecycle). A complete list of references can be found in EIR Section 7.0, References.

4.12.1 EXISTING CONDITIONS

A. Water Service and Supply

The Project site is located in the service area of EMWD for water service and supply. EMWD's water service area is approximately 555 square miles, which encompasses a majority of the eastern portion of the Santa Ana River Basin. As disclosed in EMWD's 2010 Urban Water Management Plan, the principal water supplies of EMWD include imported water from the Metropolitan Water District of Southern California (MWD), recycled water, local groundwater production, and desalted groundwater. In 2010, Approximately 10% of EMWD's water supply came from local groundwater resources, with an additional 4.5% from desalination of brackish groundwater and 26.5% from EMWD's four (4) regional water reclamation facilities (EMWD 2011a 28). The remaining portion of EMWD's water supply (approximately 60%) came through purchases from MWD.

Water Code Section 10620 (a) of the California Urban Water Management Planning Act states, "Every urban water supplier shall prepare and adopt an urban water management plan…" These plans are to be updated every five years and submitted to the State Department of Water Resources (DWR). In addition to meeting the requirements of this Act, the plans are be used to support water supply assessment and verification required by Senate Bills 610 and 221 of 2001. These bills require that water supply information be provided to counties and cities for projects of a certain size prior to project approval.

EMWD's 2005 and 2010 Urban Water Management Plans (UWMP), approved by the EMWD Board of Directors in December 2005 and June 2011, respectively, are herein incorporated by reference and are available for public review at EMWD, 2270 Trumble Rd., Perris CA. The UWMPs also are available on-line at http://www.emwd.org/news/publications.html. The Project's Water Supply Assessment (*Technical Appendix K1)* is based on the 2005 UWMP. The 2010 UWMP was approved by EMWD during the public review period for this EIR's NOP. Both Plans include a water system analysis, identify improvements to correct existing deficiencies and serve projected future growth, and present the estimated costs and phasing of the recommended improvements. As concluded in the 2010 UWMP, EMWD anticipates that it will be able to meet projected demand for water within its service boundaries until at least the year 2035 in all types of climate situations, including normal, dry, and multiple consecutive dry weather years.

A Water Shortage Contingency Plan is included in the 2010 UWMP, which would be implemented by EMWD in cases of future water deficiencies caused by limitations on supply or EMWD's delivery system (EMWD 2011a Sec. 5). Previously, on June 20, 2007, EMWD adopted a Water Shortage Contingency Plan (Ordinance No. 117.1), which required actions to be taken by EMWD to maximize supply reliability during dry years. This ordinance was amended on March 5, 2009 (Ordinance No. 117.2). At the time of long- or short-term drought conditions, or other emergencies, EMWD would inform their customers of the need to conserve water and impose penalties for non-compliance with mandatory water use reductions. Compliance with mandatory water use reductions would ensure that EMWD has the ability to meet present and projected demand within its service area during dry years.

Under existing conditions, no water is consumed by the Project site, as the property is vacant and undeveloped. As previously shown on Figure 3-7, *Conceptual Water Plan*, there are existing potable water lines beneath the Heacock Street and Iris Avenue rights-of-way, which form the western and northern bounds of the Project site, respectively. There are no existing recycled water facilities in the immediate vicinity of the Project site.

B. Wastewater Service and Treatment

Wastewater collection and treatment service to the Project area is provided by EMWD. EMWD owns and operates four regional wastewater treatment plants, including the Moreno Valley Regional Water Reclamation Facility and the Perris Valley Regional Water Reclamation Facility. Both of these facilities would ultimately receive wastewater from the proposed Project: wastewater flows from areas north of the Perris Valley Channel (*i.e.*, including the Project's proposed Parcels 1-3) are conveyed to the Moreno Valley Regional Water Reclamation Facility and wastewater flows from areas south of the Perris Valley Channel (*i.e.*, including the Project's proposed Parcel 4) are conveyed to the Perris Valley Regional Water Reclamation Facility.

On June 20, 2007, the EMWD Board of Directors approved an expansion of the Moreno Valley Regional Water Reclamation Facility to provide more efficient and effective treatment capabilities. The approved expansion project would expand the treatment capacity at this facility to 18.0 million gallons per day (EMWD 2007). The first phase of improvements is complete, and the current treatment capacity at the Moreno Valley Regional Water Reclamation Facility is 16 million gallons per day. Upon completion of construction in 2012, the facility will have a treatment capacity of 18.5 million gallons per day (Eiselein 2009). The design of this facility can accommodate the ultimate future expansion to 41 million gallons per day of treatment capacity (EMWD n.d.).

On January 19, 2005, the EMWD Board of Directors approved an expansion of the Perris Valley Regional Water Reclamation Facility (EMWD 2005). The current treatment capacity of the Perris Valley Regional Water Reclamation Facility is 15 million gallons per day. Upon completion of construction in the summer of 2011, the facility will have a treatment capacity of 22 million gallons per day. The design of the Perris Valley Regional Water Reclamation Facility can accommodate the ultimate future expansion to 100 million gallons per day of treatment capacity (EMWD n.d).

Under existing conditions, no wastewater is produced by the Project site, as the property is vacant and undeveloped. Wastewater service is available under existing conditions to portions of the site north of the Perris Valley Channel (*i.e.*, proposed Parcels 1-3) via facilities installed beneath Iris Avenue and Heacock Street (as previously shown on Figure 3-9, *Conceptual Sewer Plan*). No

wastewater service is available to areas of the Project site located south of the Perris Valley Channel (*i.e.*, proposed Parcel 4) under existing conditions.

C. Stormwater Conveyance Facilities

As described in Subsection 4.8, Hydrology and Water Quality, the portion of the Project site located north of the Perris Valley Channel (*i.e.*, proposed Parcels 1-3) is located within the Sunnymead MDP, while the portion of the Project site south of the Perris Valley Channel (*i.e.*, proposed Parcel 4) is located within the Perris Valley MDP. The RCFCWCD manages flood hazards in the area, regulates drainage systems and their development, and provides maintenance and operation of the public storm drain system. The Perris Valley and Sunnymead MDPs were prepared by the RCFCWCD and address the current and future drainage needs of the area and specify facilities capable of economically relieving flooding problems within the MDP areas (RCFCWCD n.d.).

Under existing conditions, the Perris Valley Channel bisects the Project site, splitting it into two separate drainage areas. The majority of the Project site (*i.e.*, proposed Parcels 1, 2, and 3) occurs north of the Perris Valley Channel and generally conveys flows through the site in a north-south orientation, with flows discharging at a point approximately 260 feet westerly of the southwestern corner of the Project site. The southwestern portion of the Project site (*i.e.*, proposed Parcel 4) generally drains from northwest to southeast, and discharges at the southeast corner of the Project site Flows from both portions of the site are conveyed to the Perris Valley Channel. Flows are conveyed by the Perris Valley Channel to the San Jacinto River, Reach 3. Refer to EIR Subsection 4.8, Hydrology and Water Quality, for additional information about the existing storm water system.

D. Solid Waste Collection and Disposal

The Project site is located within the service area boundaries of Waste Management of the Inland Empire, a division of Waste Management, Inc. Under existing conditions, no solid waste is produced by the Project site, as the property is vacant and undeveloped. Solid waste collected in the City of Moreno Valley is primarily deposited at the El Sobrante Landfill and the Badlands Sanitary Landfill, although some waste is also deposited at the Lamb Canyon Sanitary Landfill. Recyclables are collected separately by Waste Management of the Inland Empire and delivered to one if its material recovery facilities. Information about the landfills to which the proposed Project's solid waste would likely be deposited is provided below.

❑ El Sobrante Landfill

The El Sobrante Landfill is located east of I-15 and Temescal Canyon Road to the south of the City of Corona and Cajalco Road at 10919 Dawson Canyon Road. The landfill is owned and operated by USA Waste of California, a subsidiary of Waste Management, Inc. The landfill encompasses 1,322 acres, of which 645 acres are permitted for waste disposal (Ross 2011). The El Sobrante Landfill is permitted to receive 70,000 tons of refuse per week, which corresponds to an average disposal rate of 10,000 tons per day (Ross 2011, Waste Management of the Inland Empire n.d.). As of January 1, 2011, the landfill has a remaining in-County disposal capacity of approximately 38.506 metric tons (Ross 2011). This landfill is estimated to reach capacity in the year 2045 (Ross 2011, CalRecycle n.d.).

During the first quarter of 2011 (January 1st through March 31st), the El Sobrante Landfill accepted approximately 555,666 tons of landfill waste (approximately 6,174.1 tons per day), which

corresponds to approximately 62% of its average permitted daily disposal volume (Riverside County Waste Management Department 2011).

❑ Badlands Sanitary Landfill

The Badlands Sanitary Landfill is located northeast of the City of Moreno Valley at 31125 Ironwood Avenue. This landfill is owned and operated by the Riverside County Waste Management Department. The Badlands Sanitary Landfill encompasses approximately 1,168 acres, of which 150 acres are permitted for waste disposal (Ross 2011). The landfill is permitted to receive 4,000 tons of waste per day. The Badlands Sanitary Landfill has an estimated disposal capacity of 15.237 millions tons, and as of January 1, 2011, the Badlands Sanitary Landfill had a total remaining disposal capacity of approximately 8.987 million tons (Ross 2011). This landfill is estimated to reach capacity, at the earliest time, in the year 2024; however, future landfill expansion opportunities exist at the Badlands Sanitary Landfill site (Ross 2011, CalRecycle n.d.).

During the first quarter of 2011 (January 1st through March 31st), the Badlands Sanitary Landfill accepted approximately 130,091.4 tons of landfilled waste (approximately 1,445.5 tons per day), which corresponds to approximately 36% of its permitted daily disposal volume (Riverside County Waste Management Department 2011).

❑ Lamb Canyon Sanitary Landfill

The Lamb Canyon Sanitary Landfill is located between the City of Beaumont and the City of San Jacinto at 16411 Lamb Canyon Road (SR-79), with Interstate 10 to the north and Highway 74 to the south. This landfill is owned and operated by the Riverside County Waste Management Department. The landfill encompasses 1,189 acres, of which 580.5 acres are permitted for waste disposal. The Lamb Canyon Sanitary Landfill is permitted to receive 5,000 tons of waste per day. The landfill has an estimated disposal capacity of 15.646 million tons, of which 8.987 million tons was remaining as of January 1, 2011 (Ross 2011). The landfill is estimated to reach capacity, at the earliest, in the year 2021; however, future landfill expansion opportunities exist at the Lamb Canyon Sanitary Landfill site (Ross 2011, CalRecycle n.d.).

During the first quarter of 2011 (January 1st through March 31st), the Lamb Canyon Landfill accepted approximately 133,563.8 tons of landfilled waste (approximately 1,484.0 tons per day), which corresponds to approximately 30% of its permitted daily disposal volume (Riverside County Waste Management Department 2011).

E. Applicable Environmental Regulations

❑ California Solid Waste Integrated Waste Management Act (AB 939)

Signed into law in 1989, the California Integrated Waste Management Act (Assembly Bill (AB) 939) established an integrated waste management system that focused on source reduction, recycling, composting, and land disposal of waste. In addition, the bill established a 50% waste reduction requirement for cities and counties by the year 2000, along with a process to ensure environmentally safe disposal of waste that could not be diverted.

❑ California Solid Waste Reuse and Recycling Act (AB 1327)

Signed into law in 1991, the California Solid Waste Reuse and Recycling Access Act (AB 1327) added Chapter 18 to Part 3 of Division 30 of the Public Resources Code. Chapter 18 required the

California Integrated Waste Management Board (CIWMB) to develop a model ordinance for adoption of recyclable materials in development projects (It should be noted that the CIWMB no longer exists and its duties have been assumed by CalRecycle). Local agencies were then required to adopt the model, or an ordinance of their own, in order to govern adequate areas for collection and loading of recyclable materials in development projects. This Act requires all development projects that are commercial, industrial, institutional, or marina in nature and where solid waste is collected and loaded, to provide an adequate area for collecting and loading recyclable materials over the lifetime of the project. The area is required to be provided before building permits are issued.

4.12.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to utilities and service systems if the Project or any Project-related component would:

1. *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;*

2. *Require or result in construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or*

3. *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;*

The proposed Project also would result in a significant impact to utilities and service systems if any of the following resulted in a significant adverse change to the physical environment as a result of the Project or any Project-related component:

4. *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;*

5. *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;*

6. *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or*

7. *Comply with federal, state, and local statues and regulations related to solid waste.*

4.12.3 IMPACT ANALYSIS

Threshold 1: Would the Project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Wastewater treatment and collection services would be provided to the Project site by EMWD. EMWD is required to operate all of its treatment facilities, including the two facilities that would receive wastewater flows from the Project site (Moreno Valley Regional Water Reclamation Facility and the Perris Valley Regional Water Reclamation Facility) in accordance with the waste treatment and discharge standards and requirements set forth by the Regional Water Quality Control Board

(RWQCB). The proposed Project would not install or utilize septic systems or alternative wastewater treatment systems; therefore, the Project would have no potential to result in exceedances of the applicable wastewater treatment requirements established by the RWQCB. Accordingly, impacts would be less than significant.

Threshold 2:	***Would the Project require or result in construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?***
Threshold 4:	***Would the Project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?***
Threshold 5:	***Would the Project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?***

❑ Water Facilities

Potable water service would be provided to the Project site via connections to existing potable water lines within the rights-of-ways for Heacock Street and Iris Avenue (as depicted on Figure 3-7, *Conceptual Water Plan*). Multiple connections to these existing potable water lines, as well as the installation of new potable water lines interior to the Project site would ensure that water service to the site would meet the water supply demands of the proposed development. The existing water conveyance infrastructure would be adequate to service the Project, and the Project would not require or result in the construction of new or expanded water conveyance facilities off site, including storage tanks, pump stations, or water lines. Construction-related activities associated with trenching for and installing water lines on site would result in physical impacts to the environment; these impacts are inherent in the Project's construction phase and are evaluated throughout this EIR accordingly. There would be no significant environmental effects specifically related to the installation of water facilities during the Project's construction. In instances where significant impacts have been identified for the Project's construction phase, mitigation measures are recommended in each applicable subsection of this EIR, as feasible.

EMWD is responsible for supplying potable water to the Project site and the region. As discussed in EMWD's 2005 and 2010 UWMPs, adequate water supplies are projected to be available to meet estimated water demand until at least the year 2035 in all types of climate conditions, including normal, dry, and multiple dry-weather years (EMWD 2005b, EMWD 2011a). EMWD forecasts for projected water demand are based on the adopted land use designations contained within the general plans for the respective cities and unincorporated areas of Riverside County contained within the EMWD's service area. As discussed in Subsection 4.9, Land Use and Planning, the proposed Project is consistent with the land use designations applied to the property by the City of Moreno Valley General Plan. As such, development of the site as proposed has been previously assumed by the EMWD in its projections of future water supply and demand.

Furthermore, EMWD has prepared a water supply assessment for the proposed Project (included as *Technical Appendix K1* to this EIR) to assess the ultimate effect of the Project's water demands and service needs. The water supply assessment was prepared in accordance with Senate Bill 610 (SB 610) and Senate Bill 221 (SB 221). SB 610 requires the preparation of a water supply assessment

report for projects that propose to construct the equivalent of 500 or more residential dwelling units. SB 221 requires affirmative written verifications of sufficient water supply. As documented in *Technical Appendix K1*, EMWD projects water demand associated with the Project would be 46,851 gallons per day, which corresponds to 52.5 acre-feet per year. Based on a review of existing and anticipated future water supplies and demands, EMWD has determined that adequate water supplies are available to service proposed development (see *Technical Appendix K1*). No new or expanded entitlements are needed.

It should be noted that the water supply assessment prepared for the Project was drafted prior to the adoption of the 2010 UWMP by EMWD in June 2011. However, the updated information contained within the 2010 UWMP supports the findings of the Project's water supply assessment. The total future population anticipated in 2030 within EMWD's service area, excluding the Rancho California Water District portion of the EMWD, was identified as 943,567 persons in the Project's water supply assessment; the 2010 UWMP identifies the future population for this portion of the Water District as being 921,559, or 22,008 people less than the estimate stated in the Project's water supply assessment. Similarly, future water use within the EMWD service area is projected to decrease by 12% in 2030 as compared to what was assumed in the Project's water supply assessment. With regard to supply, the 2010 UWMP indicates that total water supply available in 2030 from all available sources would be 285,600 acre-feet per year (AFY) under "Average Year Hydrology" conditions, while the Project's water supply assessment references a total water supply of only 285,600 AFY; thus, the EMWD projects that total water supplies in 2030 will increase by 11% as compared to what was evaluated in the Project's water supply assessment. Because the future (Year 2030) demand for water resources within the EMWD service area is projected to decline compared to what was evaluated in the Project's water supply assessment, and because the total 2030 water supply available to the EMWD is projected to increase as compared what was evaluated in the Project's water supply assessment, EMWD's 2010 UWMP confirms the findings of the Project's water supply assessment and demonstrates that the EMWD would have sufficient supplies to serve the Project in light of past, present, and future commitments.

Furthermore, pursuant to EMWD policy, water supply assessments prepared for development projects must be reviewed every three (3) years to ensure the information remains accurate and that sufficient water supply is available to serve the project. On July 28, 2011, EMWD reviewed the original water supply assessment that was prepared for the Project and determined that the findings of the report remained accurate and that EMWD would continue to consider the water demand of the proposed Project in future district-wide assessments (see *Technical Appendix K2*).

With the exception of new on-site water service lines, the Project would not create the need for any new or expanded water facility (such as treatment facilities, storage tanks, or pump stations). The construction of on-site water facilities would result in physical impacts to the surface and subsurface of the Project site; however, these impacts are considered to be inherent to the Project's construction phase and are evaluated throughout this EIR accordingly. In instances where significant impacts have been identified for the Project's construction phase, mitigation measures are recommended in each applicable subsection of this EIR, as feasible. There would be no significant environmental effects created particular to on-site water line installation. There is adequate water supply to service the Project and no new or expanded entitlements are needed.

❑ Wastewater Facilities

The proposed Project would result in the demand for wastewater collection and treatment. As depicted on Figure 3-8, *Conceptual Sewer Plan*, wastewater flows from the northern portion of the Project site (*i.e.*, proposed Parcels 1-3) would be conveyed by gravity via an on-site network of sewer lines and would connect to an existing 30-inch sewer line adjacent to and north of the Perris Valley Channel. No sewer service is available to the southwestern portion of the Project site (*i.e.*, proposed Parcel 4) under existing conditions. The Project proposes to construct an off-site sewer line within Heacock Street to connect proposed Parcel 4 to existing sewer conveyance facilities near the intersection of Cardinal Avenue and Heacock Street (a distance of approximately 0.5-mile). Installation of the Project's proposed on- and off-site sewer conveyance facilities would result in physical impacts to the environment; however, these impacts are considered to be an inherent part of the Project's construction phase and are evaluated throughout this EIR accordingly. There would be no significant environmental effects specifically related to the installation of sewer facilities during the Project's construction. In instances where significant impacts have been identified for the Project's construction phase, mitigation measures are recommended in each applicable subsection of this EIR, as feasible.

As previously discussed in EIR Section 3.3.6, *Project Construction and Operational Characteristics*, the proposed Project is estimated to generate approximately 113,849 gallons of wastewater per day (using EMWD's wastewater generation rate of 1,700 gallons per day per acre for light industrial land uses). Proposed Parcels 1-3 would generate 111,231 gallons of wastewater per day, and proposed Parcel 4 would generate approximately 2,618 gallons of wastewater per day.

Wastewater from proposed Parcels 1-3 would be conveyed via the EMWD sewer line network to the Moreno Valley Regional Water Reclamation Facility. Under existing conditions, the Moreno Valley Regional Water Reclamation Facility has a daily treatment capacity of 16 million gallons per day, but only processes an average of 11.6 million gallons of wastewater per day (4.4 million gallons per day excess capacity). Following the completion of an approved expansion project in 2012, this facility will have an additional 2.0 million gallons per day of treatment capacity. Environmental impacts associated with the Moreno Valley Regional Water Reclamation Facility expansion project were previously evaluated in an MND prepared by EMWD and approved by its Board of Directors (SCH 2007031155). The MND is hereby incorporated by reference and is available for public review at EMWD, 2270 Trumble Rd., Perris CA. Parcels 1-3 would generate approximately 111,231 gallons of wastewater per day, which would correspond to approximately 2.5% of the current available treatment capacity at the Moreno Valley Regional Water Reclamation Facility (or approximately 1.7% of the available treatment capacity following completion of the current expansion project). Accordingly, this facility would have sufficient capacity to treat wastewater generated by the Project.

Wastewater from proposed Parcel 4 would be conveyed via the EMWD sewer line network to the Perris Valley Regional Water Reclamation Facility. Under existing conditions, this facility has a daily treatment capacity of 15 million gallons per day. Following completion of an expansion project in 2011, the treatment capacity of this plant will increase to 22 million gallons per day. Environmental impacts associated with the Perris Valley Regional Water Reclamation Facility expansion project were previously evaluated in an MND prepared by EMWD and approved by its Board of Directors (SCH 2004101086). The MND is hereby incorporated by reference and is available for public review at EMWD, 2270 Trumble Rd., Perris CA. The Perris Valley Regional Water Reclamation Facility is currently operating below capacity, and will operate further below capacity once the current expansion project is complete. Due to the relatively small amount of

wastewater that would be generated by proposed Parcel 4 (approximately 2,618 gallons of wastewater per day), and the amount of available capacity at this facility, it is determined that the Perris Valley Regional Water Reclamation Facility would have sufficient capacity to treat wastewater generated by the Project.

With the exception of new on-site and off-site sewer conveyance lines, the Project would not create the need for any new or expanded wastewater facility (such as treatment facilities, storage tanks, or pump stations). Construction of the Project's proposed sewer conveyance lines facilities would result in physical impacts to the surface and subsurface of the Project site and the surface and subsurface of a 0.5-mile segment of Heacock Street and its intersection with Cardinal Avenue; however, these impacts are considered to be inherent to the Project's construction phase and are evaluated throughout this EIR accordingly. In instances where significant impacts have been identified for the Project's construction phase, mitigation measures are recommended in each applicable subsection of this EIR, as feasible.

❑ Conclusion

New water and wastewater lines would be installed beneath the Project site and a new wastewater line would be installed beneath the paved right-of-way of Heacock Street as part of the Project's construction. The installation of these lines would cause surface disturbances and construction-related impacts that are evaluated throughout this EIR. There are no adverse environmental effects identified that are solely and particularly related to the installation of water and wastewater lines. Sufficient water supplies and wastewater treatment capacities are available from EMWD to service the Project and no new or expanded entitlements are needed.

Threshold 3: Would the Project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

As previously depicted on Figure 3-9, *Conceptual Drainage Plan*, the proposed Project would construct an on-site network of storm drains and detention/water quality basins to convey storm drain flows. The Project also would construct a new storm drain beneath the existing paved right-of-way of Heacock Street and would connect to an existing storm drain beneath the paved right-of-way of Iris Avenue. Off-site improvements would include the construction of two storm drain outfalls within the Perris Valley Channel. As previously discussed in EIR Section 4.8, *Hydrology and Water Quality*, implementation of the Project would not increase peak runoff flows on the property above existing levels; therefore, the proposed Project would not require the expansion of any existing storm water drainage facilities.

The construction of storm drain lines and detention/water quality basins as proposed by the Project would result in physical impacts to the surface and subsurface of the Project site, the existing paved right-of-way of Heacock Street, and two outlet locations within the Perris Valley Channel. These impacts are considered to be part of the Project's construction phase and are evaluated throughout this EIR accordingly (see EIR Subsection 4.3, Biological Resources, for a detailed discussion of physical impacts associated with construction of the proposed storm drain outfalls within the Perris Valley Channel). In instances where significant impacts have been identified for the Project's construction phase, mitigation measures are recommended in each applicable subsection of this EIR, as feasible.

In conclusion, the Project would result in the construction of new storm water drainage facilities on and beneath the Project site, beneath the paved right-of-way of Heacock Street, and as two new outlet locations within the Perris Valley Channel. The installation of these facilities would cause surface disturbances and construction-related impacts that are evaluated throughout this EIR. There would be one adverse environmental effect solely and particularly related to the installation of new storm water drainage facilities: impact to 0.06-acre of unvegetated streambed in the Perris Valley Channel from the construction of two new outlet structures. This impact is evaluated in Subsection 4.3, Biological Resources. As concluded in Subsection 4.3, there would be no loss of functions and values of riparian habitat or substantial effect on a sensitive natural community as the result of this impact. In accordance with the California Fish and Game Code, the Project is required to obtain a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Game (CDFG) for impact to 0.06-acre of CDFG jurisdictional area in the Perris Valley Storm Drain Channel. Additionally, in accordance with the Clean Water Act, a Section 404 Permit is required from the U.S. Army Corps of Engineers (Corps) and a Section 401 Permit is required from the Regional Water Quality Control Board (RWQCB) for impact to 0.05-acre of Corps and RWQCB jurisdictional area in the Perris Valley Storm Drain Channel. With mandatory adherence to Permit conditions, impacts would be less than significant.

Threshold 6: Would the Project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Construction and operation of the proposed Project would result in the generation of solid waste, requiring disposal at a landfill.

❑ Construction Impacts

Table 4.12-1, *Estimated Construction Solid Waste Generation*, provides an estimate of the amount of construction debris that would be generated by the Project during each phase of construction, based on non-residential construction waste generation factors provided by the U.S. Environmental Protection Agency. As presented in Table 4.12-1, the Project would generate approximately 9.4 tons of waste per day during Phase 1 of construction and approximately 4.0 tons of construction waste per day during Phase 2 of construction. Solid waste generated by the Project would be disposed at the El Sobrante Landfill (average daily permitted disposal capacity of 10,000 tons per day), the Badlands Sanitary Landfill (permitted disposal capacity of 4,000 tons per day) and/or the Lamb Canyon Sanitary Landfill (permitted disposal capacity of 5,000 tons per day).

Table 4.12-1 Estimated Construction Solid Waste Generation

PHASE	BUILDING AREA[1]	SOLID WASTE GENERATION RATE[2]	DURATION[1]	TOTAL[3]	
				LBS/DAY	TONS/DAY
1	1,103,003 s.f.	4.34 lb/square-foot	255 working days	18,773	9.4
2	381,404 s.f.	4.34 lb/square-foot	205 working days	8,075	4.0

1: Based on information presented in EIR Section 3.3.5.A, *Construction Details*. Estimated duration of construction Phase 1 is 255 working days. Estimated duration of construction Phase 2 is 205 working days.
2: Source: U.S. Environmental Protection Agency (2009), *Estimating 2003 Building-Related Construction and Demolition Materials Amounts*.
3: approximate values

Construction waste from Phase 1 would represent approximately 0.09% of the permitted disposal capacity at the El Sobrante Landfill, approximately 0.24% of the permitted daily disposal capacity at the Badlands Sanitary Landfill, and approximately 0.19% of the permitted daily disposal capacity at the Lamb Canyon Sanitary Landfill. Construction waste from Phase 2 of the Project would represent approximately 0.04% of the permitted disposal capacity at the El Sobrante Landfill, approximately 0.10% of the permitted daily disposal capacity at the Badlands Sanitary Landfill, and approximately 0.08% of the permitted daily disposal capacity at the Lamb Canyon Sanitary Landfill. These landfills receive well below their maximum permitted daily disposal volume, and none of these regional landfill facilities are expected to reach their total maximum permitted disposal capacities during the Project's construction period. The landfills have sufficient capacity to accept solid waste generated by the Project's construction phases; therefore, impacts would be less than significant.

❑ Operational Impacts

Table 4.12-2, *Estimated Operational Solid Waste Generation*, provides an estimate of the amount of solid waste that would be generated at Project buildout, based on waste generation factors obtained from the California Department of Resources Recycling & Recovery (CalRecycle). As summarized in Table 4.12-2, the Project is estimated to generate approximately 10.5 tons of solid waste per day during long-term operation. Solid waste generated by the Project would be disposed at the El Sobrante Landfill (average daily permitted disposal capacity of 10,000 tons per day), the Badlands Sanitary Landfill (permitted disposal capacity of 4,000 tons per day) and/or the Lamb Canyon Sanitary Landfill (permitted disposal capacity of 5,000 tons per day).

Table 4.12-2 Estimated Operational Solid Waste Generation

LAND USE	BUILDING AREA[1]	SOLID WASTE GENERATION RATE[2]	TOTAL[3]	
			LBS/DAY	TONS/DAY
Light Industrial/ Warehouse	1,484,407 s.f.	1.42 lb/100 s.f./day	21,079	10.5

1: Based on information presented in EIR Table 3-2, *March Business Center Statistical Summary*.
2: Source: CalRecycle; http://www.calrecycle.ca.gov/WasteChar/WasteGenRates/default.htm
3: approximate values

During long-term operation, the Project's solid waste would represent approximately 0.11% of the average daily permitted disposal capacity at the El Sobrante Landfill, approximately 0.26% of the permitted daily disposal capacity at the Badlands Sanitary Landfill, and approximately 0.21% of the permitted daily disposal capacity at the Lamb Canyon Sanitary Landfill. These landfills receive well below their maximum permitted daily disposal volume, and none of these regional landfill facilities are expected to reach their maximum permitted disposal capacities. The landfills have sufficient capacity to accept solid waste generated by the Project's operation; therefore, impacts would be less than significant.

Threshold 7: Would the Project comply with federal, state, and local statues and regulations related to solid waste?

The California Integrated Waste Management Act (Assembly Bill (AB) 939), signed into law in 1989, established an integrated waste management system that focused on source reduction, recycling, composting, and land disposal of waste. In addition, the bill established a 50% waste reduction requirement for cities and counties by the year 2000, along with a process to ensure

environmentally safe disposal of waste that could not be diverted. Per the requirements of the Integrated Waste Management Act, the Riverside County Board of Supervisors adopted the Riverside Countywide Integrated Waste Management Plan (CIWMP) (adopted January 14, 1997), which outlines the goals, policies, and programs the County and its cities will implement to create an integrated and cost effective waste management system that complies with the provisions of AB 939 and its diversion mandates.

In order to assist the City of Moreno Valley and the County of Riverside in achieving the mandated goals of the Integrated Waste Management Act, the Project applicant or master developer would be required to work with future refuse haulers to develop and implement feasible waste reduction programs, including source reduction, recycling, and composting. Additionally, in accordance with the California Solid Waste Reuse and Recycling Act of 1991 (Cal Pub Res. Code § 42911), the Project would provide adequate areas for collecting and loading recyclable materials where solid waste is collected. The collection areas are required to be shown on construction drawings and be in place before occupancy permits are issued. The implementation of these programs would reduce the amount of solid waste generated by the Project and diverted to landfills, which in turn will aid in the extension of the life of affected disposal sites. The Project will comply with all applicable solid waste statutes and regulations; as such, impacts would be less than significant.

4.12.4 CUMULATIVE IMPACT ANALYSIS

❑ Water Facilities

The cumulative study area for water supply and water service-related issues is the EMWD service area. Existing and future development within EMWD's service area would create a demand for additional water supplies. The 2010 UWMP prepared by EMWD projects population within the EMWD service area to increase to 1,043,818 persons by the Year 2035 (including the Rancho California Water District portion of the EMWD). Increases in population and development intensity would contribute to increases in the overall regional water demand. According to the water supply assessment letter prepared by EMWD for the proposed Project (see *Technical Appendix K*), the demand estimated for the proposed Project is within the limit of growth projected in the UWMP. Additionally, the anticipated conversion of water intensive land uses (*e.g.*, agriculture) to other, less water intensive land uses (*e.g.*, residential), as well as the implementation of existing water conservation measures and recycling programs in the EMWD service area, would reduce the need for increased water supply. The findings of the Project's water supply assessment also are confirmed by EMWD's 2010 UWMP, which shows that future population within the EMWD is expected to decline in comparison to the water supply assessment assumptions, while total supply would increase.

As stated above, EMWD is dependent on MWD (including SWP water) for the majority of its water supply. MWD is prepared for water supply deficiencies and emergencies through storage and facility design; for example, half of the capacity of Diamond Valley Lake, which is located within EMWD's service area, is reserved for emergency supply in case imported water supplies are not available. Additionally, EMWD has established a Water Shortage Contingency Plan to reduce water demand during a water supply shortage, including a reduction in availability of MWD raw water supply. The Water Shortage Contingency Plan provides several prohibitions and consumptive reduction methods that would reduce demand by more than 50% under the most extreme deficiencies.

Because the proposed Project would connect to existing conveyance infrastructure, because the Project is consistent with the property's General Plan land use designations that are incorporated into

EMWD's UWMP, and because EMWD is projected have adequate water supply for projected growth through 2035 in normal, dry, and multiple-dry years, no adverse cumulatively significant effect on water infrastructure or water supply would result from the development of the proposed Project.

❑ Wastewater Facilities

Wastewater produced by the Project would be conveyed through the EMWD sewer line network and would be treated at the Moreno Valley Regional Water Reclamation Facility and the Perris Valley Regional Water Reclamation Facility. Both of these facilities currently operate below operational capacity, which indicates there is sufficient capacity available to treat regional wastewater flows. Furthermore, both the Moreno Valley Regional Water Reclamation Facility and the Perris Valley Regional Water Reclamation Facility are undergoing expansion projects to increase daily treatment capacity, and these facilities are planned for additional future expansions (pursuant to the EMWD capital improvement program). Accordingly, EMWD has sufficient treatment capacity to treat existing and future wastewater flows generated in its service area, including wastewater generated at the proposed Project site. Therefore, cumulative wastewater service impacts are determined to be less than significant.

❑ Stormwater Drainage Facilities

The proposed Project's storm drain system has been designed to accommodate all existing flows that travel through the Project site from off-site properties, while providing for appropriate detention of on-site runoff (see EIR Subsection 4.8, Hydrology and Water Quality, for a detailed discussion). Proposed storm water drainage facilities would be adequately sized to ensure that future peak stormwater flows can be adequately captured and conveyed to regional stormwater drainage facilities. As such, a cumulatively considerable impact associated with stormwater facilities would not occur.

❑ Solid Waste Collection and Disposal

Three landfills could receive waste from the Project, including the El Sobrante Landfill, the Badlands Sanitary Landfill, and the Lamb Canyon Sanitary Landfill. These landfills are projected to have available disposal capacity until at least 2045 (El Sobrante), 2024 (Badlands Sanitary Landfill), and 2021 (Lamb Canyon Sanitary Landfill), respectively. During the Project's construction period, the Project would generate between 4.0 and 9.4 tons of construction waste per day. During long-term operation of the Project, up to 10.5 tons of solid waste would be generated by the Project on a daily basis. The Project's contribution of solid waste would represent less than one-half of one percent of the total waste being disposed at the El Sobrante Landfill, the Badlands Sanitary Landfill, and the Lamb Canyon Sanitary Landfill. These landfills have the capacity to accept the Project's waste, in addition to other solid waste generated in the landfills' service areas. All projects are required to comply with mandated waste reduction programs, which reduce the need for landfill capacity. As such, implementation of the Project would not result in cumulatively considerable impact on landfill capacity.

4.12.5 APPLICABLE PROJECT REQUIREMENTS

The following is a list of requirements and/or conditions to which the Project would be required to adhere. Compliance with these measures was assumed throughout the above analysis of utilities and service systems.

PR 4.12-1 The Project is required to comply with all applicable provisions of the City of Moreno Valley Municipal Code Chapter 6.02 "Refuse Collection, Transfer and Disposal" and Chapter 8.80 "Recycling and Diversion of Construction and Demolition Waste."

PR 4.12-2 The Project is required to install water and wastewater conveyance facilities in accordance with the California Green Building Standards Code and to the requirements of the Eastern Municipal Water District.

Project Requirements PR 4.3-2 and PR 4.3-3 specified in Subsection 4.3, Biological Resources, and Mitigation Measures MM 4.6-3, MM 4.6-4, and MM 4.6-7 in Subsection 4.6, Greenhouse Gas Emissions, also apply.

4.12.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold 1: Less than Significant Impact. The Project would not exceed wastewater treatment requirements of the Santa Ana RWQCB. Wastewater treatment and collection services would be provided by EMWD and EMWD is required to operate all of its treatment facilities in accordance with applicable waste treatment and discharge standards and requirements set forth by the RWQCB. The proposed Project would not install or use septic systems or alternative wastewater treatment systems.

Threshold 2: Less than Significant Impact. Water would be conveyed to the site through EMWD's existing water line network. Wastewater would be conveyed from the site through EMWD's existing wastewater collection network and treated at existing EMWD treatment facilities. With the exception of water and sewer conveyance lines that would be installed during the Project's construction, the Project would not require the construction of any new water or wastewater systems that have the potential to cause significant environmental effects. No new or expanded capacities or entitlements would be required.

Threshold 3: Less than Significant Impact. Stormwater would be collected on the Project site by an on-site drainage system installed during the Project's construction. With the exception of stormwater conveyance facilities, detention basins, and outlets that would be installed during the Project's construction, the Project would not require the construction of any new stormwater drainage facilities that have the potential to cause significant environmental effects.

Threshold 4: Less than Significant Impact. Sufficient water supplies are available to service the Project. EMWD would service the Project based on planned and existing water supplies as documented in its Urban Water Management Plan and a water supply assessment prepared for the Project.

Threshold 5: Less than Significant Impact. EMWD would provide wastewater treatment services to the Project site via the Moreno Valley Regional Water Reclamation Facility and the Perris Valley Regional Water Reclamation Facility. Both of these facilities have adequate capacity to service the Project and no new or expanded facilities would be needed.

Threshold 6: Less than Significant Impact. There is adequate capacity available at the El Sobrante, Badlands, and Lamb Canyon landfills to accept the Project's solid wastes. Landfill capacity would not be exceeded as a result of the proposed Project.

Threshold 7: Less than Significant Impact. The Project would comply with all applicable federal, state, and local statutes and regulations related to solid waste disposal, reduction, and recycling.

4.12.7 MITIGATION

Impacts would not be significant; therefore, mitigation measures would not be required.

5.0 MANDATORY CEQA TOPICS

5.1 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

The CEQA Guidelines require that an EIR disclose the significant environmental effects of a project which cannot be avoided if the proposed project is implemented (CEQA Guidelines Section 15126[b]). As described in detail in Section 4.0 of this EIR, the proposed Project is anticipated to result in seven (7) impacts to the environment that cannot be reduced to below a level of significance after implementation of relevant standard conditions of approval, compliance with applicable regulations, and application of feasible mitigation measures. The significant impacts that cannot be mitigated to a level below significant consist of the following:

- Air Quality (Near-Term): Significant direct and cumulative near-term impact to air quality during construction of Phase 1 of the proposed Project due to an exceedance of the SCAQMD regional thresholds for NO_X, emissions, which also would contribute to an existing air quality violation within the SCAB (i.e., non-attainment status for ozone) because NO_X is a precursor for ozone.

- Air Quality (Long-Term): Significant direct and cumulative long-term impact to air quality due to an exceedance of the SCAQMD regional thresholds for VOC and NO_X emissions, which also would contribute to an existing air quality violation within the SCAB (i.e., non-attainment status for ozone) because both NO_X and VOC emissions are a precursor for ozone.

The proposed Project's unavoidable air quality impacts listed above cannot be reduced to below a level of significance after implementation of the mitigation measures identified in this EIR. Additional feasible mitigation measures are not available to reduce near- and long-term unavoidable impacts due to NO_X emissions, nor are additional feasible mitigation measures available to reduce the proposed Project's significant impacts due to VOC emission.

- Noise (Near-Term): Significant direct and cumulative near-term impact to noise due to the exposure of nearby residential properties to noise levels that exceed the City's Noise Ordinance standard of 65 dBA Leq at a distance of 200 feet, which would occur during construction of both Phases 1 and 2 of the proposed Project.

In order to mitigate short-term noise level impacts associated with Phase 1 of the proposed Project's construction schedule, a 20-foot high temporary noise barrier with a minimum length of 1,100 feet would need to be erected along the northern property line, and an additional 20-foot high temporary construction noise barrier with a minimum length of 2,600 feet would be required along the eastern property line. During construction of Phase 2 of the proposed Project, a 20-foot high temporary construction noise barrier with a minimum length of 300 feet would need to be erected along the northern property line of Parcel 2, and an additional 20-foot high temporary construction noise barrier with a minimum length of 800 feet would be required along the eastern property line. All temporary construction noise barriers would be required to have a minimum Sound Transmission Class (STC) rating of 15. According to Urban Crossroads, the Project's noise consultant, the erection of temporary barriers during Phases 1 and 2 of Project construction would reduce noise levels affecting residential property to below the Noise Ordinance standard of 65 dBA Leq when measured at a distance of 200 feet (Urban Crossroads 2011d 4-5).

The temporary construction noise barriers have been evaluated by the Project Applicant's construction consultant (Oltmans Construction Co.), which determined that the erection of such temporary construction barriers would be infeasible. A copy of the correspondence from Oltmans Construction Co. is provided in *Technical Appendix L*. Specifically, temporary noise barriers would substantially interfere with construction of the proposed Project during both phases of construction, as follows:

- Earthwork would be adversely affected, as the posts holding up the noise barriers would hinder and prevent access of on-site tractors moving site dirt adjacent to the barricades.

- Installation of the underground sewer, water, fire sprinkler, and storm drain lines would be severely and adversely affected. To enable any digging for these critical service lines, removal of the noise barricades would be necessitated as these lines both traverse and parallel the location of the proposed barricades.

- Placement and construction of all curbs, gutters, and sidewalks would require removal of the barricades as they would directly interfere with the construction efforts required to achieve their successful placement (refer to EIR Chapter 3.0 for a detailed description of the proposed Project).

- Landscaping efforts would be compromised due to the location of the proposed noise barriers, adversely affecting successful placement of trees, shrubs, and required irrigation as detailed on the construction plans for the Project (refer to EIR Chapter 3.0 for a detailed description of the proposed Project).

- Construction (and subsequent removal) of the temporary noise barriers would result in a considerable elongation in the duration of construction activities, extending the time that other construction-related effects would occur.

Based on the analysis provided above, it is not feasible to construct 20-foot tall temporary noise barriers during Phases 1 and 2 of Project construction while accommodating construction activities that are necessary in order to implement the proposed Project. Even if temporary construction barriers were erected, they would need to be engineered to resist wind loads and be dismantled periodically during construction activities as necessary to accommodate necessary construction activities near the site boundaries and within adjacent roadways; such temporary removal of the noise barriers would result in the exposure of nearby residential properties to noise levels in excess of the City Noise Ordinance standard (noise levels would be similar to those presented on Figure 4.10-4 through Figure 4.10-9). Therefore, construction of 20-foot tall temporary noise barriers during Phases 1 and 2 of Project construction is concluded to be infeasible. A shorter barrier was considered, but would be ineffective because a shorter barrier would not obstruct the line-of-sight between the noise source and the sensitive receptors, thereby allowing noise to reach the receptors. There are no additional feasible mitigation measures to reduce the proposed Project's significant unavoidable construction-related noise impacts to a level below significant.

- Roadway Segment (Near-Term): Significant direct near-term impact to the roadway segment of Cactus Avenue west of Frederick Street (E+P), until the segment of Cactus between Frederick Street to Veterans Way is improved to three (3) travel lanes in the westbound direction.

For purposes of full disclosure and in an effort to satisfy CEQA Guidelines Section 15125(a), this EIR includes an analysis of traffic impacts that would be created if the proposed Project were placed upon the existing environment as of the date of this EIR's NOP (June 2011). The reason this particular analysis scenario is provided is to disclose the potential for direct impacts to the existing environment as required by CEQA. However, this scenario rarely materializes as an actual scenario in the real world. The time period between the date an NOP for an EIR is issued and the date project buildout occurs can often be a period of several years or more. In the case of the proposed Project, the time period estimated between this EIR's NOP (2011) and estimated Project buildout (2016) is five (5) years. During this time period, conditions are not static. Other projects are being constructed, the transportation network is evolving, and traffic patterns are changing. Therefore, this analysis scenario is very unlikely to materialize in real world conditions and thus does not accurately describe the environment that exists when a particular project is constructed and becomes operational (Urban Crossroads 2011e 99). As concluded in this EIR, if the Project were to be placed upon the existing transportation network, the Project would add 50 or more peak hour trips to the roadway segment of Cactus Avenue west of Frederick Street that operates at a deficient LOS under existing conditions.

A review of the peak hour operations at the adjacent intersection of Frederick Street and Cactus Avenue indicates that the intersection is projected to operate at an acceptable LOS. As such, it would appear that widening of this segment of Cactus Avenue is not necessary to achieve acceptable peak hour operations. The roadway segment immediately west of Frederick Street to Veterans Way is the only segment in the area not improved to three travel lanes in the westbound direction and is the likely cause of this roadway segment operating at an unacceptable LOS under existing conditions. Adding a third lane to this segment is beyond the scope of the Project and the impact would remain significant and unavoidable in the theoretical Existing Plus Project traffic condition. There is warehouse project (Plot Plan PA08-0072) proposed on the northwest corner of Frederick Street and Cactus Avenue that is currently in the City of Moreno Valley plan check process and is anticipated to begin construction in 2012. This warehouse project is conditioned to construct a five-lane section (three westbound and two eastbound lanes with a raised median) along Cactus Avenue, west of Frederick Street. The City of Moreno Valley anticipates that once this warehouse project constructs the five-lane section on Cactus Avenue, west of Frederick Street, there would no longer be a Project-related impact at this location.

- Roadway Segments and Intersections (Near-Term): Significant cumulative near-term impact to four (4) intersections (Heacock Street/Cactus Avenue, Indian Street/San Michele Road, Indian Street/Nandina Avenue, and Indian Street/Harley Knox Blvd.) and their adjoining roadway segments if needed improvements to these intersections cannot be feasibly assured before issuance of the Project's second building permit.

Many of the Project's cumulatively significant long-term impacts will be reduced to below a level of significance by the Project's required participation in the TUMF and City of Moreno Valley DIF programs by payment of fees for regional transportation improvements. Needed improvements to these four (4) intersections are not in the TUMF and DIF programs and funding mechanisms have not been established to enable the Project to contribute a fair share of improvement costs. Mitigation measures are presented in this EIR specifying fair-share fee payments, but the implementation of these measures and construction of the improvements cannot be assured. Additionally, one (1) intersection is in the City of Perris and one (1) intersection is shared between the City of Moreno

Valley and the March JPA. Construction of physical improvements that are outside of the control of the City of Moreno Valley cannot be assured.

- Roadway Segment (Long-Term): Significant cumulative long-term impact to the roadway segment of Indian Street between Iris Avenue and Gentian Avenue

  Under General Plan Buildout conditions, the roadway segment of Indian Street north of Iris Avenue is projected to operate at a deficient level of service, to which the Project would contribute 50 or more peak hour trips. A mitigation measures is presented in this EIR specifying a fair-share fee payment, but the implementation of this measure and construction of the improvements cannot be assured because a fee program does not currently exist for this roadway segment.

- Interstate 215 (Near Term): Significant cumulative near-term impact to four (4) I-215 freeway segments until such time as the planned widening of I-215 is complete.

The report titled "*Project Study Report/Project Development Support in Riverside County on I-215 and SR-60 between Nuevo Road (I-215) & I-215/SR-60 Junction and Box Springs Road (I-215) & Day Street (SR- 60)"* (prepared by Caltrans in April 2008), also known as the I-215 North Project, includes the construction of an high-occupancy vehicle lane in each direction of the I-215 Freeway between Nuevo Road and Box Springs Road within the existing median. Absent this improvement, all but one mainline segment (I-215 Southbound, North of Harley Knox) is anticipated to operate at an unacceptable LOS. The Project's contribution to cumulative impacts under Horizon Year (2016) conditions would involve only a small percentage of the forecast traffic (less than 1.5%) occurring on the identified segments in year 2016.

Because the City of Moreno Valley has no control over State facilities, and because the State facilities funded and planned to be developed under future traffic conditions are already anticipated to operate at LOS "F" even without the proposed Project, there are no further improvements that can be imposed upon the Project to mitigate its small cumulative contribution to significant impacts to the identified segments of I-215 Freeway under horizon year (2016) traffic conditions. Caltrans has exclusive control over State highway improvements and State highway improvements are by and large a matter of State-wide control.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE CAUSED BY THE PROPOSED PROJECT SHOULD IT BE IMPLEMENTED

The State CEQA Guidelines require EIRs to address any significant irreversible environmental changes which would be involved in the proposed action should it be implemented (CEQA Guidelines Section 15126.2[c]). An environmental change would fall into this category if: a) the project would involve a large commitment of non-renewable resources; b) the primary and secondary impacts of the project would generally commit future generations to similar uses; c) the project involves uses in which irreversible damage could result from any potential environmental accidents; or d) the proposed consumption of resources are not justified (e.g., the project results in the wasteful use of energy).

Determining whether the proposed Project may result in significant irreversible environmental changes requires a determination of whether key non-renewable resources would be degraded or

destroyed in such a way that there would be little possibility of restoring them. Natural resources in the form of construction materials and energy resources would be used in the construction of the proposed Project, but the development of the Project is not expected to negatively affect the availability of such resources, including resources that may be non-renewable (e.g., fossil fuels).

Implementation of the proposed Project would result in the commitment of future generations to business center land uses on the proposed Project site. Lands to the north and east of the proposed Project site similarly would be committed to long-term use as industrial developments. However, as demonstrated in the analysis presented throughout EIR Section 4.0, long-term operation of the proposed Project would not result in significant impacts to nearby properties. Although significant unavoidable long-term impacts would result from Project implementation (as summarized above in Subsection 5.1), such long-term impacts to air quality and transportation/traffic would not significantly impact any existing land uses (including sensitive receptors) within the Project vicinity. As such, there is no component of the proposed Project that would result in the commitment of future generations to light industrial land uses on properties that are not already designated for such use by the Moreno Valley General Plan and/or the Moreno Valley Industrial Area Plan.

EIR Subsection 4.7 provides an analysis of the proposed Project's potential to transport or handle hazardous materials which, if released into the environment, could result in irreversible damage to the environment. As concluded in the analysis, the proposed Project would be required to comply with federal, state, and local regulations related to hazardous materials, which would ensure that construction and long-term operation of the proposed Project would not have the potential to cause significant irreversible damage to the environment, including damage that may result from upset or accident conditions.

To reduce the Project's energy needs and fossil fuel consumption, and thereby reduce air emissions, the Project Applicant has committed to achieve certification of the March Business Center Project under the U.S. Green Building Council's LEED program. Following final building inspection, the Project Applicant will seek LEED Certification pursuant to the procedures set forth by the Green Building Certification Institute. According to the United States Green Building Council (USGBC), and based on a study prepared by the National Buildings Institute (NBI), "…new buildings certified under the USGBC LEED certification systems are, on average, performing 25-30% better than non-LEED certified buildings in terms of energy use" (United States Green Building Council 2008). Therefore, the proposed Project would not result in the wasteful use of energy or the consumption of resources that are not justified based on the scale of the proposed Project.

5.3 GROWTH-INDUCING IMPACTS OF THE PROPOSED PROJECT

CEQA requires a discussion of the ways in which the proposed Project could be growth inducing. The CEQA Guidelines identify a project as growth inducing if it would foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment (CEQA Guidelines Section 15126.2(d)). New employees and new residential populations represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area.

Western Riverside County abuts San Bernardino County to the northeast, Orange County to the west and San Diego County to the south. These adjacent counties have large employment bases and given

Riverside County's close proximity to these adjacent counties, many Riverside County residents commute to jobs in adjacent counties. The California Employment Development Department (CEDD) reported that over 90,000 workers were commuting out of Riverside County in 2000 (CEDD, 2008)[1].

A project could indirectly induce growth at the local level by increasing the demand for additional goods and services associated with an increase in population or employment and thus reducing or removing the barriers to growth. This typically occurs in suburban or rural environs where population growth results in increased demand for service and commodity markets responding to the new population. Economic growth would likely take place as a result of the proposed Project's operation as a business park/light industrial development, but the intensity of economic growth would occur consistent with planned growth identified in the Riverside County General Plan and in the General Plans of adjacent jurisdictions. The Project is consistent with the Business Park/Light Industrial land use designation assigned to the property by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (MVIAP).

Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of little significance to the environment. Typically, growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population in excess of what is assumed in pertinent master plans, land use plans, or in projections made by regional planning agencies such as the Southern California Association of Governments (SCAG). Significant growth impacts could also occur if the project provides infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way.

Development of the Project with business park/light industrial land uses may place pressure on several surrounding parcels that are included within the MVIAP area, which are currently undeveloped, to implement the land uses specified by the MVIAP. However, these surrounding properties already are planned for such development, and implementation of the proposed Project would not directly promote growth on these adjacent and surrounding properties. Because this type of growth would be consistent with the City's General Plan and the MVIAP, growth-inducing impacts of the Project would be less than significant. The Project is not expected to induce growth or land use changes on other parcels in the vicinity, as other lands surrounding the site are either already developed or planned to be developed consistent with their General Plan and/or MVIAP land use designations.

Growth project quantifications for the Project are most meaningful for the geographic area covered by the Western Riverside County Council of Governments (WRCOG). This area includes the cities of Calimesa, Canyon Lake, Corona, Hemet, Lake Elsinore, Moreno Valley, Murrieta, Norco, Perris, Riverside, San Jacinto, and Temecula, as well as portions of unincorporated Riverside County (including the new city of Menifee which was not yet incorporated at the time SCAG forecasts were published). SCAG's most recently adopted Integrated Growth Forecast (SCAG, 2008) for the WRCOG area is reflected below in Table 5-1, *SCAG Growth Forecasts for the WRCOG Region.*

[1] As of June 2011, the California Employment Development Department had not yet released County-to-County commuter data based on the 2010 Census.

The proposed Project is consistent with those forecasts, in that the forecasts considered City General Plan buildout.

Table 5-1 SCAG Growth Forecasts for the WRCOG Region

CATEGORY	YEAR 2010	YEAR 2015	YEAR 2020	YEAR 2025	YEAR 2030	YEAR 2035
Population	1,735,426	1,918,962	2,096,544	2,262,992	2,414,256	2,550,867
Households	546,047	609,219	671,933	727,622	780,743	828,547
Employment	588,523	691,260	797,626	901,163	1,005,923	1,098,233

Source: SCAG, Regional Transportation Plan (RTP), 2008.

"Jobs-to-housing ratio" measures the extent to which job opportunities in a given geographic area are sufficient to meet the employment needs of area residents. However, as noted in the City's General Plan, "The land use plan allows for an adequate number of jobs to meet the needs of local residents" (Page 2-6). The proposed Project is consistent with the General Plan's land use designation for the site; therefore, the proposed Project would assist the City in improving the jobs-housing ratio, which under existing conditions is lower than the statewide and regional average (indicating the City of Moreno Valley and surrounding areas experience a relatively low jobs-to-housing ratio).

The Project site is currently undeveloped. Lands immediately abutting the site include vacant land designated for development with business park/light industrial land uses, existing residential uses, and the March Air Reserve Base. Development in the area is occurring in accordance with the City of Moreno Valley General Plan and MVIAP, and in a phased manner with a logical extension of utility and infrastructure improvements. Implementation of the proposed Project would not stimulate growth in the area beyond that anticipated by the City of Moreno Valley General Plan.

Indirect growth-inducing impacts at the local level result from a demand for additional goods and services associated with the increase in people in the area, including employees. This occurs in suburban or rural environments where population growth results in increased demand for service and commodity markets responding to the new population. This type of growth is, however, a regional phenomenon resulting from introduction of a major employment center or regionally significant housing project. The implementation of the proposed Project would result in growth-inducing impacts of the region, but not beyond that which is already envisioned by the General Plan.

5.4 EFFECTS FOUND NOT TO BE SIGNIFICANT AS PART OF THE INITIAL STUDY PROCESS

Section 15128 of the CEQA Guidelines requires that an EIR:

> *"…contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR."*

An Initial Study was prepared for the proposed Project, which is included as *Technical Appendix A* to this EIR. Through the Initial Study process, the City of Moreno Valley determined that the proposed Project could potentially cause adverse effects, and an EIR is required. Five environmental issues were found not to have the potential to cause significant adverse effects: agricultural resources,

mineral resources, population and housing, public services, and recreation. Therefore, these issue areas are not required to be discussed in Section 4.0, *Environmental Analysis*, of this EIR. A brief summary of issues found not to be significant is presented below.

5.4.1 AGRICULTURAL RESOURCES

The Project site contains lands classified as "Farmland of Local Importance" and "Urban and Built-Up Land," and does not contain any soils mapped by the State Department of Conservation as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (as illustrated on City of Moreno Valley General Plan FEIR Exhibit 5.8-1, *Important Farmlands*). There are no General Plan policies requiring conservation of Farmland of Local Importance. As such, a significant impact due to the conversion of important farmland types would not occur with implementation of the Project.

The Project site is not within an agricultural preserve, nor is it subject to a Williamson Act contract according to the City of Moreno Valley General Plan EIR. Under existing conditions, the Project site is comprised of vacant, undeveloped land. The northern portion of the proposed Project site is thought to have been used for agricultural production as early as 1938, although this portion of the site was used for stables and a training center for racehorses between 1953 and 1967. During this time, large areas of the northern portions of the site were used for pasture. The southern portion of the proposed Project site also is thought to have been used for pasture between approximately 1977 and 1989. (SCS Engineers 2006 7-9)

The area immediately surrounding the Project site area is comprised of an air base, vacant land and residential development. The Project site is zoned for industrial land uses and the immediate surrounding area is zoned for industrial land uses. Because the Project site is not in or adjacent to an agricultural preserve and neither the Project site nor any immediately surrounding property is zoned for agricultural use, the proposed Project would not conflict with an existing agricultural use, zoning, or a Williamson Act contract. No impact would occur.

The proposed Project site is located in an area that has been largely developed, with an air base located immediately to the west of the site, industrial land uses located to the south of the site, and residential land uses located to the north and northeast of the site. Properties adjacent to the Project site have either been developed or are planned for development. In addition, and as noted above, there are no nearby properties designated or zoned for agricultural use. As such, implementation of the proposed Project would not result in any other changes to the environment that could result in the conversion of farmland to non-agricultural use.

Therefore, a significant impact to agricultural resources would not occur with Project implementation.

5.4.2 MINERAL RESOURCES

The Project site is not located within an area of known to be underlain by regionally- or locally-important mineral resources, or within an area that has the potential to be underlain by regionally- or locally-important mineral resources, as disclosed by the City's General Plan and the associated General Plan FEIR. Accordingly, implementation of the proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State of California. In addition, the City's General Plan does not identify any locally-

important mineral resource recovery sites on site or within close proximity to the Project site. Accordingly, impacts to mineral resources would not occur.

5.4.3 POPULATION AND HOUSING

The proposed Project would develop the subject property with a business center in accordance with the Business Park/Light Industrial land uses designation applied to the site by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan. Accordingly, the Project would not result in growth that was not already anticipated by the City of Moreno Valley General Plan and evaluated in the City of Moreno Valley General Plan FEIR. The Project would include the installation of off-site sewer infrastructure; however, the proposed off-site sewer line has been sized to serve the Project and does not contain adequate excess capacity to support substantial, unplanned, additional growth. As such, implementation of the Project would not result in direct or indirect growth in the area, and impacts are evaluated as less than significant.

The Project site is vacant under existing conditions and contains no residential structures. Accordingly, implementation of the Project would not displace housing or people, and would not necessitate the construction of replacement housing elsewhere. Significant impacts would not occur.

Therefore, the proposed Project would not result in a significant impact to population/housing.

5.4.4 PUBLIC SERVICES

With development of the Project site, the Riverside County Fire Protection Master Plan would require that the Project achieve an Urban-Category I level of service, which requires a fire station to be within 1.5 roadway miles of the Project and a full first alarm assignment team operating on the scene of a fire within 10 minutes of a dispatch. The proposed Project would be primarily served by the Kennedy Park Fire Station (Station No. 65), an existing station located approximately 1.2 roadway miles north of the Project, which would meet the Urban-Category I service criteria established by the Riverside County Fire Department. The proposed Project also will be conditioned to provide a minimum of fire safety and support fire suppression activities, including type of building construction, fire sprinklers, a fire hydrant system and paved access to the proposed Project area. Furthermore, the proposed Project is required to comply with the provisions of the City of Moreno Valley's Development Impact Fee Ordinance (Ordinance No. 695), which requires a fee payment that the City applies to the funding of public facilities, including fire protection facilities. Mandatory compliance with the Development Impact Fee Ordinance would be required prior to the issuance of building permits. Based on the foregoing, the proposed Project would receive adequate fire protection service, and would not result in the need for new or physically altered fire protection facilities. Impacts to fire protection facilities are therefore evaluated as less than significant.

The development of the subject property with business park/light industrial land uses would introduce new structures and employees to the Project site. This increase in the developed environment would result in an incremental increase in demand for police protection services, would not require or result in the construction of new or physically altered police facilities. Prior to the issuance of building permits, the Project Applicant would be required to comply with the provisions of the City of Moreno Valley's Development Impact Fee Ordinance (Ordinance No. 695), which requires a fee payment that the City applies to the funding of public facilities, including police facilities. Based on the foregoing, the proposed Project would receive adequate police protection service, and would not result in the need for new or physically altered police protection facilities.

Impacts to police protection facilities are therefore evaluated as less than significant and no further analysis of this issue area is warranted.

The Project would not create a direct demand for public school services, as the subject property would be developed solely with business park/light industrial land uses and would not generate any school-aged children requiring public education. The addition of employment uses on the Project site would assist in the achievement of the City's goal to provide a better jobs/housing balance within the City and the larger western Riverside County region (City of Moreno Valley General Plan FEIR). Thus, the Project would not draw new residents to the region and would therefore not indirectly generate additional school-aged students requiring public education. Because the project would not directly generate students and is not expected to indirectly draw students to the area, the proposed Project would not result in the need to construct new or physically altered public school facilities. Although the Project would not create a demand for additional public school services, the Project Applicant would be required to contribute development impact fees to the Val Verde Unified School District, in compliance with California Senate Bill 50 (Greene). Mandatory payment of school fees would be required prior to the issuance of building permits. Project-related impacts to public schools are evaluated as less than significant and no additional analysis of this issue is required.

As discussed in Subsection 5.4.5, below, the proposed Project would not create a demand for public park facilities and would not result in the need to modify existing or construct new park facilities. Accordingly, implementation of the Project would not adversely affect any park facility and impacts are regarded as less than significant.

The proposed Project would not result in a demand for other public facilities/services, including libraries, community recreation centers, and animal shelters. As such, implementation of the Project would not adversely affect other public facilities or require the construction of new or modified facilities.

Therefore, a significant impact to public services would not occur with development of the proposed Project.

5.4.5 RECREATION

The Project proposes to develop the site solely with business park/light industrial land uses. The Project does not propose any type of residential use or other land use that may generate a population that would increase the use of existing neighborhood and regional parks or other recreational facilities in the vicinity. Accordingly, implementation of the Project would not result in the increased use or substantial physical deterioration of an existing neighborhood or regional park.

The proposed Project would develop the site with four buildings to accommodate business park/light industrial land uses. The Project does not propose to construct any new on- or off-site recreational facilities and would not expand any existing off-site recreational facilities. Therefore, adverse environmental impacts related to the construction or expansion of recreational facilities would not occur with implementation of the Project.

As such, implementation of the proposed Project would not result in any significant impacts associated with recreational facilities.

6.0 ALTERNATIVES TO THE PROPOSED PROJECT

Section 15126.6(a) of the State CEQA Guidelines indicates the scope of alternatives to a proposed project that must be evaluated:

> "*An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selection of a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.*"

As discussed in Section 4.0 of this EIR, the proposed Project would result in significant adverse environmental effects to air quality, noise, and traffic that cannot be mitigated to below levels of significance after the implementation of Project design features, mandatory regulatory requirements, and feasible mitigation measures. The unavoidable significant impacts are:

- Air Quality (Construction-Related Near Term)

  Significant direct and cumulative near-term impact to air quality during construction of Phase 1 of the proposed Project due to an excedance of the SCAQMD regional thresholds for NO_X, emissions, which also would contribute to an existing air quality violation within the SCAB (i.e., non-attainment status for ozone) because NO_X is a precursor for ozone.

- Air Quality (Long-Term)

  Significant direct and cumulative long-term impact to air quality due to an excedance of the SCAQMD regional thresholds for VOC and NO_X emissions, which also would contribute to an existing air quality violation within the SCAB (i.e., non-attainment status for ozone) because both NO_X and VOC emissions are a precursor for ozone.

- Noise (Construction-Related Near-Term)

  Significant direct and cumulative near-term impact to noise due to the exposure of nearby residential properties to noise levels that exceed the City's Noise Ordinance standard of 65 dBA Leq at a distance of 200 feet, which would occur during construction of both Phases 1 and 2 of the proposed Project.

- Traffic (Near-Term)

  Significant direct near-term impact to the roadway segment of Cactus Avenue west of Frederick Street (E+P), until the segment of Cactus between Frederick Street to Veterans Way is improved to three (3) travel lanes in the westbound direction.

  Significant cumulative near-term impact to four (4) intersections (Heacock Street/Cactus Avenue, Indian Street/San Michele Road, Indian Street/Nandina Avenue, and Indian Street/Harley Knox Blvd.) and their adjoining roadway segments if needed improvements to these intersections cannot be feasibly assured before issuance of the Project's second building permit.

- Traffic (Long-Term)

  Significant cumulative long-term impact to the roadway segment of Indian Street between Iris Avenue and Gentian Avenue, which is calculated to operate at a deficient level of service with and without the proposed Project at General Plan Buildout.

CEQA Guidelines Section 15126.6(e) requires that an alternative be included that describes what would reasonably be expected to occur on the property in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services. This is considered to be the No Project Alternative. The No Project Alternative, described in detail below, is identified as the most environmentally superior alternative. CEQA requires that if the environmentally superior alternative is determined to be a No Project Alternative, then another environmentally superior alternative should be identified among the other alternatives, if the analysis indicates that significant impacts can be avoided by one or more of the other alternatives. Therefore, the Vacant Lot/Business Center Alternative is selected as the environmentally superior alternative.

6.1 ALTERNATIVES UNDER CONSIDERATION

The following scenarios have been identified as potential alternatives to implementation of the proposed Project.

❑ Alternative 1 – No Project Alternative

The No Project Alternative assumes that the Project site would be left in its existing condition. This alternative was selected by the Lead Agency to compare the environmental effects of the Project against leaving the property in its existing state. The proposed Project implements the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208). If the Project were not approved, it is reasonable to expect that the property would remain vacant for the foreseeable future.

❑ Alternative 2 – Vacant Lot/Business Center Alternative

The Vacant Lot/Business Center Alternative considers development of the site in a way that would reduce or avoid near-term impacts during the Project's construction phase. Under this Alternative, no construction activities would occur on site within 1,100 feet of the property's northeastern corner, creating a distance between construction activities and sensitive receptors (residential homes) located to the northeast. However, and pursuant to City requirements, construction activities associated with

frontage improvements along Iris Avenue still would be required. This Alternative was selected for consideration by the Lead Agency because two (2) of the Project's significant unavoidable impacts (noise and air quality) would occur during the construction phase; reducing the extent of construction activity by increasing the distance between construction and sensitive receptors has the potential to reduce or avoid these significant impacts. Under this alternative, the northeastern quadrant of the property would remain vacant and no construction activities would occur in this area, with exception of frontage improvements to Iris Avenue. The resulting building area on the Project's proposed Parcel 1 would be reduced and building space on the property as a whole would be lowered to approximately 762,800 s.f.

❑ Alternative 3 – Small Building Alternative

The Small Building Alternative considers development of Parcel 1 of the proposed Project with buildings that are smaller than 50,000 s.f. in size instead of the single 1,103,003 s.f. building proposed by the Project. Under this alternative, approximately 30 to 40 buildings ranging in size from 10,000 s.f. to 50,000 s.f. would be constructed on Parcel 1, while buildings and construction characteristics on Parcels 2 through 4 would be identical to the proposed Project. Table 6-1, *Small Building Alternative Statistical Summary*, provides a summary of proposed building area and FAR under this alternative. Implementation of this alternative would result in an overall reduction in building area on site by approximately 168,003 s.f., or a reduction of 11.3%, as compared to the proposed Project. Development of Parcel 1 would occur over four (4) development phases (or 5 phases for the entire Project site), and would take approximately eight to twelve years to complete. In general, land uses on Parcel 1 would largely comprise light industrial, light manufacturing, assembly, and small-scale warehousing uses. This Alternative was selected for consideration by the Lead Agency to determine if any of the Project's near-term construction or long-term operational significant and unavoidable impacts could be reduced or avoided by constructing smaller buildings on the Parcel 1 while maintaining consistency with the property's Industrial designation under the Moreno Valley Industrial Area Plan.

Table 6-1 Small Building Alternative Statistical Summary

PARCEL	NET PARCEL SIZE	TOTAL BUILDING AREA	FAR[1]
1	2,077,688 s.f.	935,000 s.f.	0.45
2	512,072 s.f.	277,243 s.f.	0.54
3	258,479 s.f.	87,429 s.f.	0.34
4	67,144 s.f.	16,732 s.f.	0.25
Total	**2,915,383 s.f.**	**1,316,404 s.f.**	**0.45**

[1] Floor Area Ratio (FAR) is calculated by dividing the maximum building square footage by the net square footage of the parcel on which the building is located. Total FAR is calculated by dividing the total square footage of all buildings by the total net square footage of the parcels on which they would be located.

6.2 ALTERNATIVES CONSIDERED AND REJECTED

An EIR is required to identify any alternatives that were considered by the Lead Agency but were rejected as infeasible. Among the factors described by CEQA Guidelines Section 15126.6 in determining whether to exclude alternatives from detailed consideration in the EIR are: a) failure to meet most of the basic project objectives, b) infeasibility, or c) inability to avoid significant environmental impacts. With respect to the feasibility of potential alternatives to the proposed Project, CEQA Guidelines Section 15126.6(f)(1) notes:

> *"Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries…and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site…"*

In determining an appropriate range of alternatives to be evaluated in this EIR, a number of possible alternatives were initially considered and, for a variety of reasons, rejected. Alternatives were rejected because either: 1) they could not accomplish the basic objectives of the Project, 2) they would not have resulted in a reduction of significant adverse environmental impacts, or 3) they were considered infeasible to construct or operate. The reason for not selecting each alternative is discussed below.

❑ Alternative Sites

CEQA does not require that an analysis of alternative sites always be included in an EIR. However, if the surrounding circumstances make it reasonable to consider an alternative site then this alternative should be considered and analyzed in the EIR. In making the decision to include or exclude analysis of an alternative site, the "*key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR*" [CEQA Guidelines §15126.6(f)(2)].

The Project's proposed industrial business center land uses are consistent with the Business Park/Light Industrial and Commercial land use designations applied to the property by the City of Moreno Valley General Plan and as further detailed by the Industrial and Industrial Support Areas designations applied to the property by the Moreno Valley Industrial Area Plan (Specific Plan 208). An examination of alternative sites is typically not necessary when a proposed development project is consistent with the applicable land use plan, because it can reasonably be assumed that development would ultimately occur in conformance with the applicable land use designation, whether by the Project Applicant or by others in the future. In cases where a proposed project is consistent with the applicable General Plan, the alternatives analysis should typically focus on options for developing the site consistent with adopted plan policies and the discussion of alternatives should search for an environmentally superior version of the project on the site instead of an alternative site.

Regardless, alternative site locations were considered. Based on a general review of vacant sites and a specific review of eight (8) properties that are identified for industrial development in the I-215 corridor within the City of Moreno Valley and nearby locations within the City of Riverside and the City of Perris, it has been determined that there are no feasible alternative locations for development with industrial land uses by the Project Applicant. The eight specific sites evaluated are located in the area bound by Rider Street to the south, Iris Avenue to the north, Perris Boulevard to the east, and Seaton Avenue to the west. The Project Applicant does not own or control any properties within the City of Moreno Valley or immediately surrounding area that are of similar in size as the proposed Project site, and there are no suitable vacant sites available for sale by the current property owners. Additionally, and as noted above, even if the proposed Project were not developed at its currently

proposed location, it is reasonable to conclude that the Project site ultimately would be developed by others in the future pursuant to the MVIAP's designation of the site for "Industrial" land uses.

Furthermore, the property is generally flat and is highly disturbed due to past activities and regular disking. The site's vegetation consists of mostly of ruderal species. The site is not located within an MSHCP Criteria Area and potential impacts to one sensitive species (burrowing owl) would be reduced to below a level of significance in accordance with MSHCP requirements. The property is surrounded by March Air Reserve Base to the west and properties approved for the construction of industrial land uses to the immediate north and east. Property located to the south is also designated for industrial development and one industrial building has already been constructed. Few other properties in the City of Moreno Valley and western Riverside County would offer less developmental and environmental constraints, or fewer environmental impacts than the proposed Project site. Development of the Project in an alternate location would have similar impacts as would occur with implementation of the Project at its proposed location. For these reasons, an alternative sites analysis is not required for the proposed Project.

❑ Existing Krameria Avenue Alignment Alternative

The Project proposes a General Plan Amendment (PA11-0001) and a Specific Plan Amendment (P11-004) to modify the Circulation Element of the City of Moreno Valley General Plan and to amend the Moreno Valley Industrial Area Plan (Specific Plan 208). The proposed modifications consist of changes to the planned alignment and classification of a segment of Krameria Avenue between Heacock Street and proposed Cosmos Street. The City's General Plan and Specific Plan 208 call for Krameria Avenue to be extended to Heacock Street diagonally across the southern portion of the Project site (parallel with the Perris Valley Storm Drain Channel) and meeting Heacock Street at an oblique angle. An alternative to the Project was considered that retained the planned alignment of Krameria Avenue. However, because retaining the planned alignment would not reduce any of Project's adverse impacts to the environment and because the proposed alignment change would improve the local circulation system by providing 90 degree intersections, the Existing Krameria Avenue Alignment Alternative was rejected from further consideration.

6.3 ALTERNATIVES ANALYSIS

The following discussion compares the impacts of each alternative considered by the Lead Agency with the impacts of the proposed Project, as detailed in Section 4.0, Environmental Analysis, of this EIR. A conclusion is provided for each impact as to whether the alternative results in one of the following: (1) reduction or elimination of the proposed Project's impact, (2) a greater impact than would occur under the proposed Project, (3) the same impact as the proposed Project, or (4) a new impact in addition to the proposed Project's impacts. Table 6-2 at the end of this section compares the environmental hazard and resource impacts of the alternatives with those of the proposed Project and identifies the ability of the Alternative to meet the basic objectives of the Project. As described in EIR Subsection 3.2, the proposed Project's objectives are:

A. To develop a business center in conformance with the land use designations applied to the property by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208).

B. To develop a business center that can accommodate light industrial and warehouse distribution tenants within close proximity to regional transportation routes.

C. To develop a business center that is financially feasible to construct and operate.

D. To make efficient use of a property by achieving a minimum Project-wide floor area ratio (FAR) of 0.50.

E. To attract new businesses and jobs to the City of Moreno Valley, thereby providing a more equal jobs/housing balance both in the City and in Riverside County and reducing the need for members of the existing local workforce to commute outside the area for employment.

F. To modify the planned alignment of Krameria Avenue to enable efficient development of the Project site and improve circulation and public safety within the area of the Moreno Valley Industrial Area Plan.

G. To develop a business center with an architectural design and operational characteristics that are complementary with existing and planned development in the immediate vicinity.

H. To construct a business center that incorporates energy efficiency and low water use principles in order to increase environmental quality during construction and operation.

6.3.1 ALTERNATIVE 1 – NO PROJECT ALTERNATIVE

The No Project Alternative allows decision-makers to compare the impacts of approving the proposed Project against the impacts that would occur if the property were to remain undeveloped for the foreseeable future. The 75.05-acre Project site in its existing condition contains no structures and is covered with ruderal vegetation that is routinely maintained (*i.e.*, disced) for fire management. The property is flat with no unique topographic or geologic features. Refer to the description of the Project site's existing physical conditions in Section 2.0 of this EIR.

Selection of the No Project Alternative would prevent the Project site from being developed but would not necessarily prevent the Project or another project of its nature from being located in another location in response to the demand for industrial business park space in western Riverside County. As discussed above, an examination of alternative sites is not required in this EIR because the Project is consistent with its General Plan and Specific Plan land use designations and locating the Project on an alternative site would not be environmentally superior. Nonetheless, the Lead Agency recognizes that selection of the No Project Alternative would not reduce the market demand for industrial business park space in western Riverside County.

❑ Land Use

Under the No Project Alternative, no development would occur on the property. The development of an industrial business center would not take place and no new structures would be introduced on the site. Additionally, frontage roadway improvements would not occur adjacent to the property.

The No Project Alternative would be inconsistent with the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (MVIAP), which designate the Project site for the development of industrial land uses. Improvement of Iris Avenue and Heacock Street would not

occur along the site's frontage and Krameria Avenue would not be extended through the property, which would be inconsistent with the General Plan Circulation Element and MVIAP which call for improvements to these roadways. The No Project Alternative also would be inconsistent with the site's zoning designation of Industrial (I). Although policy inconsistencies would occur with the General Plan and the MVIAP, impacts would not be regarded as significant because no adverse physical impacts to the environment would occur as a result of the inconsistency. Leaving the property in a vacant condition would not cause conflicts with adjacent land uses, nor would it conflict with programs and policies adopted for the purposes of avoiding environmental impacts. Fire suppression by disking would continue to occur. Neither the proposed Project nor the No Project Alternative would result in significant or cumulatively considerable impacts associated with land use.

❑ Aesthetics

The Project site does not contain any unique aesthetic resources, nor does it serve as a prominent scenic vista. In addition, the Project site is not visible from any state or locally-designated scenic highways. Under the No Project Alternative, the existing visual character and quality of the site would be maintained in its existing condition. No structures, landscaping, or sources of artificial light would be introduced on the property. Therefore, this Alternative would result in no impact to aesthetics, positive or negative. The Project's less than significant aesthetic impacts during construction and at buildout would be avoided with the selection of this Alternative.

❑ Air Quality

As identified in EIR Subsection 4.2 the proposed Project would result in significant and unmitigable impacts to air quality in the near-term due to NO_X emissions during construction and in the long-term due to VOC and NO_X emissions from Project operation. No development would occur on the Project site under the No Project Alternative; therefore, there would be no sources of air pollutant emissions. Selection of this Alternative would avoid all of the proposed Project's near- and long-term air quality impacts.

❑ Biological Resources

Vegetation on the Project site is highly disturbed due to past uses of the site and required routine discing. As such, the Project site's vegetation is dominated by ruderal plant species. Habitat is provided on the property for the burrowing owl and other listed migratory birds, such as raptors. Under the No Project Alternative, the Project site would remain in its existing condition and the Project's impacts to biological resources would not occur.

❑ Cultural Resources

The No Project Alternative would result in no grading; therefore, no impacts to subsurface paleontological or archaeological resources would occur. Selection of this Alternative would avoid all site disturbances.

❑ Geology and Soils

The No Project Alternative would result in no grading; therefore, no impacts to geology or soils would occur. Because no structures would be constructed, there would be no increased seismic risks to structures associated with seismically induced ground shaking and no potential for soil instability to affect structures. Selection of this Alternative would avoid the Project's impacts to geology and

soils. Neither the proposed Project nor the No Project Alternative would result in significant or cumulatively considerable impacts to geology and soils.

❑ Greenhouse Gas Emissions

The analysis in EIR Subsection 4.6 demonstrates that the proposed Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing greenhouse gasses. Therefore, Project-related emissions of greenhouse gasses would be less than significant on both a direct and cumulative basis. Regardless, greenhouse gasses would be emitted during construction and operation of the Project. Global climate change occurs as the result of global emissions of green house gasses. Neither the proposed Project nor the No Project Alternative would result in significant or cumulatively considerable impacts associated with greenhouse gas emissions. Regardless, selection of the No Project Alternative would eliminate greenhouse gas emissions that would be generated by development on the Project site.

❑ Hazards and Hazardous Materials

Because no development would occur under the No Project Alternative, no impacts related to hazards or hazardous materials would occur. Hazardous materials would not be used on the site or transported to the site. The existing groundwater monitoring wells would remain in their existing location and no wells would be relocated as proposed by the Project. Fire suppression by routine discing would be required to continue on the property. Selection of this Alternative would avoid the Project's impacts related to hazards and hazardous materials.

❑ Hydrology and Water Quality

No changes to existing hydrology and drainage conditions would occur under the No Project Alternative. No stormwater improvements would be constructed and rainfall would be discharged from the site as sheet flow, as occurs under existing conditions. Neither the proposed Project nor the No Project Alternative would result in substantial alterations to the drainage pattern of the site. Accordingly, implementation of the proposed Project and the No Project Alternative would both result in less than significant impacts to existing drainage patterns.

Because buildings, roadways, and parking lots would not occur on the site under this Alternative, an increase of impervious surfaces and urban pollutants would not occur. However, under this Alternative, water leaving the site would not be filtered and would continue to contain sediment and other potential pollutants, as occurs under existing conditions. The potential for water quality impacts from an urban pollutant nature would be reduced, but the potential for water quality impacts associated with sedimentation would be increased under this alternative. Implementation of the No Project Alternative would result in a reduced impact to hydrology and water quality as compared to the proposed Project, although erosion and sedimentation would continue to occur as water sheet flows off of the site's surface. Selection of this Alternative would reduce the Project's impacts to hydrology and water quality with the exception of long-term sedimentation impacts, which would be greater than would occur under the proposed Project.

❑ Noise

Because no construction would occur on the property, the Project's significant and unavoidable impact associated with construction noise would be avoided. Additionally, because no development would occur on the site and no new traffic trips would be generated, the No Project Alternative

would not contribute to an incremental increase in area-wide noise levels. Also, there would be no sources of stationary noise introduced on the site. Selection of this Alternative would avoid all of the Project's noise impacts.

❑ Transportation/Traffic

Because development of the site would not occur, no traffic would be generated by the No Project Alternative. No contributions to the TUMF program or the City of Moreno Valley DIF program would be made under this Alternative and no road or intersection improvements at the Project's frontage would occur. Krameria Avenue also would not be extended through the property. The significant and unavoidable traffic impacts of the proposed would be avoided through selection of the No Project Alternative. However, because frontage improvements to Iris Avenue and Heacock Street would not be constructed, the capacity of these facilities would be adversely affected in the near-term (i.e., until the improvements are constructed by others), and thereby potentially impact regional circulation flow. Local traffic flow also would be affected in the near-term because a segment of Krameria Avenue would not be constructed. The non-vehicular transportation network also would be affected, as no sidewalk or bikeway improvements would be installed at the Project's frontage and no easement would be provided for a future transit stop. Selection of this Alternative would avoid the Project's impacts to transportation/traffic, but would create a potential new impact associated with obstructing improvements to Iris Avenue, Heacock Street and Krameria Avenue as called for by the City's General Plan Circulation Element and MVIAP. The ability to construct regional transportation improvements also may be affected because there would be no contribution from the Project site toward TUMF and DIF fees that are relied upon for area-wide improvements.

❑ Utilities and Service Systems

No additional domestic water or sewer facilities would be needed for the No Project Alternative, and no domestic water use or sewerage generation increases would occur. Also, this alternative would not generate increases in the demand for solid waste collection and disposal and would not generate increased demand for energy and utilities such as electricity, gas, and communications systems. Neither the proposed Project nor the No Project Alternative would result in significant or cumulatively considerable impacts to utilities and service systems. Nonetheless, selection of this Alternative would avoid all of the Project's demand placed on utilities and service systems.

❑ Conclusion

Implementation of the No Project Alternative would result in no physical environmental impacts beyond those that have historically occurred on the property. All significant effects of the proposed Project would be avoided or lessened by the selection of this Alternative. However, the No Project Alternative would not construct improvements to Iris Avenue, Heacock Street, and Krameria Avenue, which may result in adverse effects on the local and regional circulation network under near-term conditions. Erosion and sedimentation would continue under existing conditions.

The No Project Alternative would fail to meet all of the Project's objectives. This Alternative would fail to develop an industrial business center to attract new businesses and jobs in Moreno Valley in order to provide a more equal jobs/housing balance. Furthermore, retention of the site in its existing undeveloped condition would be inconsistent with the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan, which call for development of the site with industrial land uses. Moreover, selection of the No Project Alternative, while preventing development of the property,

would not result in a reduction in demand for industrial business park development in western Riverside County; thus, it is likely for the Project's environmental impacts to occur elsewhere rather than be avoided.

6.3.2 ALTERNATIVE 2 – VACANT LOT/BUSINESS CENTER ALTERNATIVE

The Vacant Lot/Business Center Alternative considers development of the site in a way that would increase the distance between construction activities and off-site sensitive receptors located to the northeast. Under this Alternative, no construction activities would occur within 1,100 feet of the property's northeastern corner, with the exception of frontage improvements to Iris Avenue. The northeastern quadrant of the property would remain as a vacant lot and no construction activities would occur in this area.

For purposes of analysis, this Alternative assumes that the total building space on the property would be reduced to approximately 762,800 s.f. (a 49% overall reduction compared to the proposed Project). The following building types are assumed: 554,486 s.f. of high cube warehouse, 174,858 s.f. of warehouse, and 33,464 s.f. of light industrial. This represents elimination of the proposed Project's largest building (on Parcel 1) and the construction of two identical (paired) buildings as designed for the Project's Parcels 2, 3, and 4. Thus, this Alternative considers the construction of six (6) buildings on 47 acres. The remaining 28 acres of the property would be left vacant.

Selection of the Vacant Lot/Business Park Alternative would reduce the amount of building space constructed on the Project site but would not necessarily prevent the building space that could have been developed on the 28-acre vacant lot from being located in another location in response to the demand for industrial business park space in western Riverside County. As discussed above, an examination of alternative sites is not required in this EIR because the Project is consistent with its General Plan and Specific Plan land use designations and locating the Project (or in this case, a portion of the Project) on an alternative site would not be environmentally superior. Nonetheless, the Lead Agency recognizes that selection of the Vacant Lot/Business Park Alternative would not reduce the market demand for industrial business park space in western Riverside County.

- **Land Use**

This Alternative would be consistent with the City of Moreno Valley General Plan and MVIAP land use designations as applied to approximately 47 acres of the property. The remaining approximately 28 acres of the property would be left as a vacant lot, which is inconsistent with the City of Moreno Valley General Plan and MVIAP that designate the entire Project site for the development of industrial land uses. The portion of the site left vacant also would be inconsistent with the site's zoning designation of Industrial (I). Although policy inconsistencies would occur with the General Plan and the MVIAP, impacts would not be regarded as significant because no adverse physical impacts to the environment would occur as a result of the inconsistency. This portion of the site would continue to be disked to reduce the potential for fire hazards. Leaving approximately 28 acres of the property in a vacant condition would not cause conflicts with adjacent land uses, nor would it conflict with programs and policies adopted for the purposes of avoiding environmental impacts. Neither the proposed Project nor the Vacant Lot/Business Center Alternative would result in significant or cumulatively considerable impacts to land use.

❑ Aesthetics

Under the Vacant Lot/Business Center Alternative, the aesthetics of the built environment would be relatively similar to that of the Project on the approximately 47 acres that would be developed as an industrial business park. Development would be required to comply with all applicable development regulations and design standards of the MVIAP. The aesthetics of the remaining approximately 28 acres of the property would be characteristic of a vacant lot. Aesthetic impacts associated with the short-term presence of construction equipment would be reduced because less area of the property would be under construction. This Alternative would have aesthetic benefits (reducing short-term aesthetic impacts during construction) and aesthetic adversities (presence of an unmaintained vacant lot adjacent to a segment of Iris Avenue). Neither the proposed Project nor the Vacant Lot/Business Center Alternative would result in significant or cumulatively considerable impacts to aesthetics.

❑ Air Quality

Because the Vacant Lot/Business Center Alternative would have a reduced construction footprint as compared to the proposed Project, the length of time that construction-related emissions would occur during grading, paving, and building construction would be reduced by approximately six (6) months as compared to the proposed Project. The Alternative would not eliminate the significant and unavoidable construction-related air quality impact because emission levels would remain the same on the days that construction would occur. The SCAQMD significance thresholds used in this EIR are based on emission levels per day, not total emissions. Therefore, despite the reductions in construction activities, emissions of NO_X would still exceed SCAQMD thresholds even with the incorporation of required conditions of approval and mitigation measures. None of the Project's significant short-term air quality impacts would be avoided, but the length of time that they would occur would be reduced.

Long-term vehicle emissions would be reduced under this Alternative due to a reduction in the total traffic volume from 4,400 to 2,926 average daily trips in passenger car equivalents (PCEs). Although this Alternative represents a 49% reduction in building space, it represents only a 33.5% reduction in PCEs because the uses that would occupy the smaller buildings assumed under this Alternative have a higher trip generation rate than the high-cube warehouse building that is proposed by the Project on its Parcel 1. Additionally, when PCEs are converted to actual vehicle trips, air emissions would be reduced by an even lesser percentage (about 30%) because fewer large axel trucks would be attracted under this Alternative in favor of more passenger vehicles and small axel trucks.

As with the proposed Project, long-term vehicular emissions of VOC and NO_X would exceed the SCAQMD significance thresholds, but to a lesser degree of severity. Other emission volumes also would drop, but would be less than significant under both the proposed Project and this Alternative. Long-term impacts would continue to result in a conflict with the SCAQMD's Air Quality Management Plan (AQMP) and would contribute to the region's inability to meet the California Ambient Air Quality Standards (CAAQS). Selection of the Vacant Lot/Business Center Alternative would, however, offer a reduction in long-term air quality impact severity as compared to the proposed Project due to the fewer number of vehicle trips generated.

This Alternative would be subject to the same regulatory requirements and mitigation measures identified in Subsection 4.3 of this EIR. Both the proposed Project and this Alternative would result

in significant unavoidable air quality impacts in the near- and long-term, but the extent of the impact would be reduced with selection of the Vacant Lot/Business Center Alternative.

❑ Biological Resources

This Alternative would physically disturb 28 fewer acres than the proposed Project. As such, this Alternative would reduce the potential impact to burrowing owl habitat on the property, but not to below a level of significance as burrowing owl habitat would still be impacted on the developed portions of the property. As no other aspect of these 28 acres are biologically sensitive, other impacts to biological resources (including permits required for drainage outlets into the Perris Valley Storm Drain Channel) would be identical as compared to the proposed Project. This Alternative would be subject to the same regulatory requirements and mitigation measures identified in Subsection 4.4 of this EIR. Both the proposed Project and the Vacant Lot/Business Center Alternative would result in significant biological resources impacts requiring mitigation but the extent of impacts to sensitive species would be reduced by the selection of this Alternative.

❑ Cultural Resources

The Vacant Lot/Business Center Alternative would physically disturb 28 less acres of property than the proposed Project. Regardless, there are no historic resources on the property and no known or recorded archaeological or paleontological resources. This Alternative would be subject to the same regulatory requirements identified in Subsection 4.5 of this EIR. Impacts would be less than significant under both the proposed Project and this Alternative.

❑ Geology and Soils

The Vacant Lot/Business Center Alternative would physically disturb 28 less acres of property than the proposed Project. Thus, there would be a concomitant reduction in the potential for geology and soils impacts associated with construction activities. This Alternative would be subject to the same regulatory requirements identified in Subsection 4.6 of this EIR. Neither the proposed Project nor the Vacant Lot/Business Center Alternative would result in significant or cumulatively considerable impacts to geology and soils.

❑ Greenhouse Gas Emissions

The analysis in EIR Subsection 4.6 demonstrates that the proposed Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing greenhouse gasses. Therefore, Project-related emissions of greenhouse gasses would be less than significant on both a direct and cumulative basis. Regardless, greenhouse gasses would be emitted during construction and operation of the Project. Global climate change occurs as the result of global emissions of greenhouse gasses. Similar to the discussion of Air Quality, above, developing fewer acres of the property as assumed under this Alternative would reduce construction-related emissions as well as long-term emissions associated with fewer vehicle trips generated from the property. Thus, a lesser volume of greenhouse gasses would be emitted from uses on the property than would occur under the proposed Project. Selection of this Alternative would not reduce the market demand for industrial space in the region, however, and the selection of this Alternative would likely represent a redistribution of greenhouse gas sources rather than a reduction of total greenhouse gas volumes. As with the proposed Project, the mitigation measures identified in EIR Subsection 4.6.7 would be required for this Alternative. Although neither the proposed Project nor the Vacant Lot/Business Center Alternative would result in significant greenhouse gas emission impacts, selection of this

Alternative would result in a lesser volume of greenhouse gasses emitted into the environment as a direct result of developing the Project site.

❑ Hazards and Hazardous Materials

The Vacant Lot/Business Center Alternative would physically disturb 28 less acres of property and construct 49% less building space than the proposed Project, resulting in a concomitant reduction in the use of hazardous substances during construction and operation. Because a lesser amount of construction materials would be used, there would be a lower potential for the improper use, transportation, and handling of hazardous materials during construction. As with the proposed Project, the same number of groundwater monitoring wells would require relocation and regulatory measures identified in EIR Subsection 4.7 would be identical for the Project and this Alternative.

Land uses that would occur on the site under the Vacant Lot/Business Center Alternative would be similar in character to those proposed by the Project, with the greatest difference being a reduction in high cube warehouse space. The type and amount of hazardous materials located on the property during operation could be reduced with lesser building space. If businesses that use or store hazardous materials occupy buildings on the Project site, the business owners and operators would be required to comply with all applicable federal, state, and local regulations to ensure proper use, storage, emission, and disposal of hazardous substances. With mandatory regulatory compliance, neither the proposed Project nor this Alternative would be expected to pose a significant hazard to the public or the environment.

❑ Hydrology and Water Quality

This Alternative would physically disturb 28 fewer acres than the proposed Project. Thus, there would be a lesser potential for temporary soil erosion to occur during construction. A Stormwater Pollution Prevention Program (SWPPP) would be required to be implemented for both this Alternative or the proposed Project and less than significant impacts during construction would occur in either case.

Because fewer buildings, roadways, and parking lots would occur on the site under this Alternative, there would be less impervious surfaces and a lower potential for urban pollutants. However, under this Alternative, water leaving the 28-acre vacant lot would not be filtered and would continue to contain sediment and other potential pollutants, as occurs under existing conditions. The drainage system design of this Alternative's 47-acre development area would need to accommodate sheet flow and manage pollutants and sediments carried in the sheet flow from this vacant lot. Implementation of the Vacant Lot/Business Center Alternative would result in generally the same hydrology and water quality conditions as compared to the proposed Project. The same regulatory requirements would be imposed as listed in EIR Subsection 4.8. With mandatory regulatory compliance, neither the proposed Project nor this Alternative would result in significant hydrology or water quality impacts.

❑ Noise

Because construction would not occur within 1,100 feet of the nearest sensitive receptor (residential properties located northeast of the Project site), except during the construction of frontage improvements along Iris Avenue, the Project's significant and unavoidable construction-related noise impact would be reduced. However, since construction activities still would occur within 1,100 feet

of sensitive receptors (i.e., during the improvements to Iris Avenue along the frontage of the proposed Project site), the proposed Project's significant and unavoidable near-term noise impacts would be reduced but would not be fully avoided by the selection of this Alternative. Additionally, there would be few constraints to erecting a temporary noise barrier along the northern edge of the 47-acre development area, which would further reduce the temporary noise impact.

With respect to operations, the Vacant Lot/Business Center Alternative would result in permanent long-term increases to noise levels above ambient conditions, but slightly less than would occur under the proposed Project, as the result of vehicle trip reductions. Because this Alternative would generate approximately 30% fewer daily traffic trips, it is expected that this Alternative would also reduce off-site noise levels. Additionally, the potential for stationary noise sources to affect off-site sensitive receptors would be reduced, as the nearest operational noise would be located at a distance of 1,100 feet to the closest sensitive receptor. In summary, selection of this Alternative would reduce and possibly avoid the Project's near-term unavoidable construction-related noise impact and would offer a reduction in stationary noise and vehicular-related noise impacts as compared to the proposed Project.

❑ Transportation/Traffic

Implementation of the Vacant Lot/Business Center Alternative would result in the generation of approximately 2,926 average daily trips in passenger car equivalents (PCEs), compared to 4,400 that would be generated by the proposed Project. Although this Alternative represents a 49% reduction in building space, it represents only a 33.5% reduction in PCEs because the uses that would occupy the smaller buildings assumed under this Alternative have a higher traffic trip generation rate than the high-cube warehouse building that is proposed by the Project on its Parcel 1. Although there would be a decrease in average daily trips under this Alternative, it is not anticipated that this Alternative would be able to substantially reduce the proposed Project's identified transportation/traffic impacts.

Furthermore, because less development would occur, fee contributions to the TUMF program and the City of Moreno Valley DIF program would be reduced, which could affect the ability to implement planned regional transportation improvements.

In summary, although the selection of this Alternative would reduce the extent of the Project's impacts to transportation/traffic, the Project's direct and cumulative impacts still would occur, but to a lesser degree. . The ability to construct regional transportation improvements also may be affected because there would be a lower contribution from the Project site toward TUMF and DIF fees that are relied upon for area-wide improvements.

❑ Utilities and Service Systems

The Vacant Lot/Business Center Alternative would reduce the demand for water and sewer as compared to the proposed Project because less building space would be constructed. The demand for solid waste collection and landfill disposal capacity would also be reduced, as would energy consumption and utility usage during construction and operational phases.

Implementation of the Vacant Lot/Business Center Alternative would result in a reduced demand for water and wastewater services, as compared to the Project, but the facilities required to service the site would be the same under the proposed Project and this Alternative. Thus, this Alternative would result in identical physical impacts to construct utilities and service systems as the proposed Project.

Also, under both this Alternative and the proposed Project, compliance with recycling programs would be required to reduce solid waste volumes deposited to landfills. Neither the proposed Project nor the Vacant Lot/Business Center Alternative would result in significant impacts to utilities and service systems.

❑ Conclusion

The Vacant Lot/Business Center Alternative would meet some of the Project's objectives, although to a lesser degree than the proposed Project due to the reduction in building space. The land use designations applied to the property by City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan would not be realized on 28 acres of the property. Additionally, the property would not be efficiently used and fewer jobs would be created as compared to the proposed Project.

Because less area of the property would be disturbed by construction, there would be a lesser extent of impact to aesthetics, biological resources, and geology/soils. Construction-related impacts associated with air quality, greenhouse gas emissions, hydrology and water quality, and hazardous materials also would be reduced. The Project's significant and unavoidable construction-related noise impact would be reduced, but would not be completely avoided.

In the long-term, because the maximum building area would be reduced, this Alternative would result in a corresponding reduction in air quality, noise, transportation/traffic and utilities and service system impacts directly associated with the property. The Project's significant unavoidable impacts associated with air quality emissions and transportation/traffic would be reduced but not avoided. The Vacant Lot/Business Center Alternative would not result in increased impacts to any environmental issue area in comparison to the proposed Project. However, while selection of this Alternative may reduce the severity of impacts resulting from the development of this property, it would not result in a reduction in demand for industrial business park space in western Riverside County; thus, it is likely that the reduced level of environmental impact achieved through this Alternative would be displaced to another property rather than avoided.

6.3.3 ALTERNATIVE 3 – SMALL BUILDING ALTERNATIVE

The Small Building Alternative considers developing Parcel 1 with 30 to 40 light industrial buildings that would range in size from 10,000 s.f. to 50,000 s.f. Buildings on Parcels 2 through 4 would be identical to the proposed Project. This Alternative assumes the construction of 1,316,404 s.f. of building space over the entire 75.05-acre property (as shown in Table 6-1) and construction of the same circulation system improvements as proposed by the Project (frontage improvements to Iris Avenue and Heacock Street, construction of Cosmos Street, and construction of a segment of Krameria Avenue through the site). Due to the increase in the number of buildings proposed on Parcel 1, construction on Parcel 1 would occur over 4 phases (or 5 phases for the entire Project site), and would take approximately eight to twelve years to complete (as compared to approximately four years for the proposed Project).

❑ Land Use

The land uses that would occur on the property under this Alternative would be consistent with those permitted by the Industrial designation applied to the property by the Moreno Valley Industrial Area Plan (Specific Plan No. 208). However, because buildings would be restricted in size, future tenants generally would consist of light industrial, light manufacturing, assembly, and small-scale

warehousing uses, such as: furniture and household furnishings; durable medical produces; clothing; construction services; plumbing supplies; electronics; appliances; and storage of retail goods.
As with the proposed Project, there would be no significant adverse land use impacts associated with this Alternative.

❑ Aesthetics

Neither the proposed Project nor the Small Building Alternative would negatively impact views from any state- or locally-designated scenic highway segment due to distance and intervening development. Also, neither this Alternative nor the proposed Project would damage scenic on-site resources, because such resources are not present on the property. Aesthetics of the property after development would be similar to that of the Project, although there would be more buildings with more tenants, some of which may have outdoor storage. Neither the proposed Project nor this Alternative would result in significant direct or cumulatively considerable aesthetic impacts.

❑ Air Quality

Although this Alternative would result in a reduction in building area on site, the proposed Project's significant and unavoidable construction-related air quality impact would not be reduced because emission levels would remain the same on the days that construction would occur. The SCAQMD significance thresholds used in this EIR are based on emission levels per day, not total emissions. Therefore, despite the reductions in construction activities associated with the erection of buildings, emissions of NO_X would still exceed SCAQMD thresholds even with the incorporation of required conditions of approval and mitigation measures. None of the Project's significant short-term air quality impacts would be avoided, and the length of time that they would occur would be increased because this Alternative proposes the construction of 29 to 39 more buildings on site as compared to the proposed Project over a longer period of time (eight to 12 years as compared to four years).

For long-term operations, the Small Building Alternative would result a reduction in building square footage to 1,316,404 s.f. (a reduction of 11.3% compared to the proposed Project); however, the number of total vehicle trips in PCEs would more than double, from 4,400 daily PCEs under the proposed Project to 9,769 PCEs (using a "general light industrial" ITE trip rate) under this Alternative. This increase is due to the higher volume of traffic that is attracted to light industrial land uses than to large warehouse (high cube and general warehouse) buildings (refer to Section 4.1 of the Project's Traffic Impact Analysis [*Technical Appendix J*] for additional discussion of trip generation rates). Due to the substantial increase in vehicle trips, air quality impacts would be severely worsened by the selection of the Small Building Alternative. None of the Project's significant short-term and long-term air quality impacts would be avoided. In fact, they would be worsened and additional air quality impacts would occur.

❑ Biological Resources

This Alternative would physically disturb the same amount of acreage as the proposed Project. As such, this alternative would have identical biological resource impacts as compared to the proposed Project and would be subject to the same regulatory requirements and mitigation measures. Under both the proposed Project and this Alternative, impacts to biological resources would be reduced to below a level of significance.

❑ Cultural Resources

This Alternative would physically disturb the same amount of acreage as the proposed Project, to identical depths. As such, this Alternative would have identical cultural resources impacts as compared to the proposed Project and would be subject to the same regulatory requirements and mitigation measures. Under both the proposed Project and this Alternative, impacts to cultural resources would be reduced to below a level of significance.

❑ Geology and Soils

This Alternative would physically disturb the same amount of acreage as the proposed Project and conduct the same amount of grading. As such, this Alternative would have identical geology and soils impacts as compared to the proposed Project and would be subject to the same regulatory requirements. Neither the proposed Project nor this Alternative would result in significant geology and soils impacts.

❑ Greenhouse Gas Emissions

The analysis in EIR Subsection 4.6 demonstrates that the proposed Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing greenhouse gasses. Therefore, Project-related emissions of greenhouse gasses would be less than significant on both a direct and cumulative basis. Regardless, greenhouse gasses would be emitted during construction and operation of this Alternative. Global climate change occurs as the result of global emissions of green house gasses. Due to the extended duration of construction activities, this Alternative would result in an increase in the amount of near-term greenhouse gas emissions that would be generated as compared to the proposed Project. This Alternative also would generate a higher volume of air emissions during long-term operation due to an approximate 120% increase in the number of vehicle trips. Regardless, the Small Building Alternative would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing greenhouse gasses. As with the proposed Project, the mitigation measures identified in EIR Subsection 4.6.7 would be required for this Alternative. Although neither the proposed Project nor this Alternative would result in significant greenhouse gas emission impacts, selection of this Alternative would result in a greater volume of greenhouse gasses emitted into the environment as a direct result of developing the Project site.

❑ Hazards and Hazardous Materials

This Alternative would physically disturb the same amount of acreage as the proposed Project, to identical depths. As such, this Alternative would have identical hazardous materials impacts associated with hazardous materials during construction and would be subject to the same regulatory requirements and mitigation measures. Although a slightly higher quantity of construction materials would be used (due to the substantial increase in the number of buildings on site), this Alternative and the proposed Project would have the same or similar potential for the improper use, transportation, and handling of hazardous materials during construction. Accordingly, this Alternative would result in similar impacts as the proposed Project, and would require the same mitigation measures associated with groundwater monitoring well relocation to reduce impacts to below the level of significance.

Land uses that would occur on site under the Small Building Alternative would have the same or similar potential to handle and store hazardous materials as would the proposed Project. If businesses that use or store hazardous materials occupy buildings on the Project site, the business

owners and operators would be required to comply with all applicable federal, state, and local regulations to ensure proper use, storage, emission, and disposal of hazardous substances. With mandatory regulatory compliance, neither the Small Building Alternative nor the proposed Project would be expected to pose a significant hazard to the public or the environment.

❑ Hydrology and Water Quality

This Alternative would physically disturb the same amount of acreage as the proposed Project. As such, this Alternative would have identical hydrology and water quality impacts during construction as compared to the proposed Project and would be subject to the same regulatory requirements.

In the long-term, the same or similar amount of impervious surface coverage would occur, resulting in the same or similar potential for urban pollutants to be carried into the storm water drainage system. The potential for water quality impacts from an urban pollutant nature would be the same under this Alternative and the proposed Project. The same regulatory requirements would be imposed as listed in EIR Subsection 4.8. With mandatory regulatory compliance, neither the proposed Project nor this Alternative would result in significant hydrology or water quality impacts.

❑ Noise

Because the Small Building Alternative would have similar grading and construction requirements as the proposed Project, construction-related noise impacts during grading and construction would be the same or similar as the Project. As such, this Alternative would also result in a significant and unavoidable noise impact during its construction phase. However, construction activities would occur over a much longer duration due to the extended construction schedule that would result from the construction of 30 to 40 buildings on Parcel 1 (eight to 12 years instead of four years under the proposed Project); therefore, near-term significant and unmitigable impacts due to noise would increase under this alternative as compared to the proposed Project.

With respect to operations, the Small Building Alternative would result in permanent long-term increases to noise levels above ambient conditions, due to on-site operations and on- and off-site traffic. Although the Small Building Alternative would result a reduction in building square footage to 1,316,404 s.f. (a reduction of 11.3% as compared to the proposed Project), the number of total vehicle trips in PCEs would more than double, from 4,400 daily PCEs to 9,769 PCEs. Due to the substantial increase in vehicle trips, off-site noise impacts would be increased as compared to the proposed Project and additional off-site noise impacts may occur.

❑ Transportation and Traffic

Implementation of the Small Building Alternative would result in the generation of approximately 9,769 average daily trips in passenger car equivalents (PCEs), compared to 4,400 that would be generated by the proposed Project. Although this Alternative represents an 11.3% reduction in building space, it represents a 120% increase in PCEs because the uses that would occupy the site have a higher traffic trip generation rate than the high-cube warehouse building and general warehouse buildings that are proposed by the Project on its Parcel 1. (The “general light industrial” ITE trip rate was used to calculate traffic generation for this Alternative). This increase in traffic would increase the severity of traffic impacts identified for the proposed Project and would very likely create additional direct and cumulative impacts.

❑ Utilities and Service Systems

The Small Building Alternative would result in a reduced demand for water and sewer as compared to the proposed Project due to the reduced amount of building square footage. The demand for solid waste collection and landfill disposal capacity would also be slightly reduced. Neither the proposed Project nor this Alternative would result in significant utilities and service system impacts.

❑ Conclusion

The Small Building Alternative would meet not most of the Project's objectives. However, this Alternative would not meet the Project's objective to achieve a 0.5 or higher FAR (this Alternative only would achieve an FAR of 0.45). Additionally, this Alternative would be less effective in meeting the Project's objective to accommodate warehouse distribution land uses on site, and also would be less effective than the proposed Project in creating new jobs.

Because the entire property would be disturbed by construction, near-term construction related impacts would be identical for this Alternative and the proposed Project, with the exception of near-term noise impacts. Since construction activities on Parcel 1 would occur over a much longer time frame, near-term construction-related noise also would impact nearby sensitive receptors over a longer duration. In the long-term, the Small Building Alternative would lessen demand on utilities and services but would not reduce or avoid any of the Project's other environmental impacts and would create additional impacts and more severe impacts associated with air quality, greenhouse gas emissions, noise, and traffic due to the generation of a 120% higher volume of vehicle trips.

Table 6-2 Alternatives - Comparison of Environmental Impacts

ENVIRONMENTAL TOPIC	PROPOSED PROJECT SIGNIFICANCE OF IMPACTS AFTER MITIGATION	LEVEL OF IMPACT COMPARED TO THE PROPOSED PROJECT		
		NO PROJECT ALTERNATIVE	VACANT LOT/BUSINESS CENTER ALTERNATIVE	SMALL BUILDING ALTERNATIVE
Land Use	Less Than Significant	Same	Same[2]	Same
Aesthetics	Less than Significant	Avoided	Mixed[3]	Same
Air Quality	Significant	Avoided	Mixed[3]	Increased[5]
Biological Resources	Less than Significant	Avoided	Reduced	Same
Cultural Resources	Less than Significant	Avoided	Reduced	Same
Geology and Soils	Less than Significant	Avoided	Reduced	Same
Greenhouse Gas Emissions	Less than Significant	Avoided	Reduced[4]	Increased
Hazards and Hazardous Materials	Less than Significant	Avoided	Reduced	Same
Hydrology and Water Quality	Less than Significant	Mixed[1]	Mixed[1]	Same
Noise	Significant	Avoided	Reduced	Increased
Transportation/Traffic	Significant	Avoided	Reduced	Increased[5]
Utilities and Service Systems	Less than Significant	Avoided	Reduced	Reduced
ABILITY TO MEET THE BASIC OBJECTIVES OF THE PROJECT[6]				
Objective A:		No	Yes, but to a lesser degree	Yes
Objective B:		No	Yes, but to a lesser degree	Yes, but to a lesser degree
Objective C:		No	Yes, but to a lesser degree	Yes
Objective D:		No	No	No
Objective E:		No	Yes, but to a lesser degree	Yes, but to a lesser degree
Objective F:		No	Yes	Yes
Objective G:		No	Yes	Yes
Objective H:		No	Yes	Yes

1. Impacts reduced except for erosion-related impacts, which would be increased.
2. Inconsistencies with the City of Moreno Valley General Plan and MVIAP would occur, but these inconsistencies would not create adverse impacts to the physical environment.
3. Construction-related impacts reduced. Long-term impacts increased.
4. Impact associated with development of the Project site is reduced. Impact likely displaced and not reduced overall.
5. Construction-related impacts are the same. Increased long-term impacts associated with a greater volume of vehicle trips.
6. Refer to EIR Subsection 3.2 for a list of the proposed Project's basic objectives.

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John Terell, AICP, Planning Official
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7.1.2 T&B PLANNING, INC.

Tracy Zinn, Principal
Degrees: B.S.; Regional Planning and Geography, 1992
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Jeramey Harding, Senior Project Manager
Degrees: B.S.; Natural Resources Planning, 1999
M.S.; Urban and Regional Planning, 2001
Certifications: American Institute of Certified Planners, 2011

David Ornelas, Project Manager
Degrees: B.A.; Urban Studies and Planning, 2006

Robyn Barber, Environmental Analyst
Degrees: B.A.; Environmental Geology and Environmental Studies, 2002
M.P.A; Urban and Regional Affairs and Policy Research and Analysis, 2004

Eric Horowitz, GIS Manager
Degrees: B.A.; Urban and Regional Planning, 1996
M.S.; Geographic Information Systems, 2003
Certifications: Geographic Information Systems Professional, 2009

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7.5 DOCUMENTS APPENDED TO THIS EIR

The following reports, studies, and supporting documentation were used in preparing the March Business Center EIR and are bound separately as Technical Appendices. A copy of the Technical Appendices is available for review at the City of Moreno Valley Community and Economic Development Department, Planning Division, 14177 Frederick Street, Moreno Valley, California, 92552.

Appendix A Initial Study for March Business Center, Notice of Preparation, and Written Comments.

Appendix B1 Urban Crossroads, Inc. 2011a. *March Business Center Air Quality Impact Analysis*. October 31, 2011.

Appendix B2 Urban Crossroads, Inc. 2012. *March Business Center Mobile Source Health Risk Assessment*. August 9, 2012.

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Appendix L Written Correspondence.

TENTATIVE PARCEL MAP NO. 35879

ASSESSORS PARCEL NUMBERS: 316-020-032, 316-020-033, 316-020-034, 316-020-035, 316-020-036

REAL PROPERTY IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

"MARCH BUSINESS CENTER"

PREPARED FOR:

WESTERN REALCO
500 NEWPORT CENTER DR. #630
NEWPORT BEACH, CA 92660
PHONE: (949) 720-3787
FAX: (949) 720-3790

OWNER:

CSIP WR MORENO VALLEY, LLC
c/o WESTERN REALCO
500 NEWPORT CENTER DR. #630
NEWPORT BEACH, CA 92660
PHONE: (949) 720-3787
FAX: (949) 720-3790

0 50 100 200 300
SCALE:1"=100'

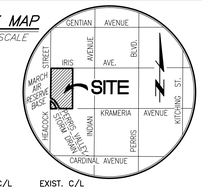
TANGENT TABLE:

NO.	DISTANCE	BEARING
T1	30.00'	N 89°58'59" W
T2	56.35'	S 45°09'06" W
T3	167.17'	N 89°52'06" E
T4	41.23'	S 78°50'54" E
T5	60.00'	N 89°52'06" E
T6	41.23'	N 78°35'07" E
T7	20.00'	S 00°07'54" E
T8	50.01'	N 16°56'51" W
T9	55.16'	N 45°15'26" E
T10	56.10'	S 42°21'54" E
T11	24.41'	S 11°31'07" W
T12	122.98'	N 00°26'39" E
T13	172.16'	S 00°26'39" W

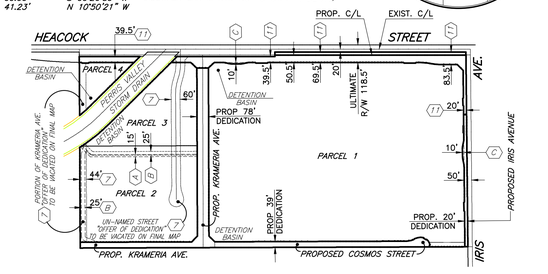
TANGENT TABLE:

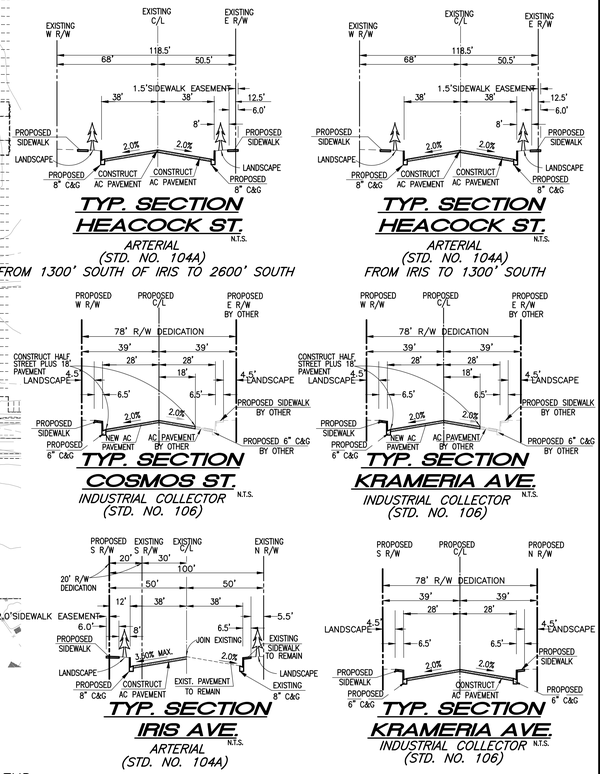
NO.	DISTANCE	BEARING
T14	78.00'	S 00°37'45" W
T15	55.94'	S 43°03'13" W
T16	131.09'	N 00°26'39" E
T17	56.10'	S 44°18'43" E
T18	55.15'	S 44°44'34" E
T19	39.00'	S 89°44'27" E
T20	39.00'	S 00°15'33" W
T21	56.10'	S 44°18'43" E
T22	30.00'	N 00°15'33" E
T23	50.00'	N 89°50'07" W
T24	57.20'	N 00°26'39" E
T25	41.23'	N 11°43'39" E
T26	60.00'	S 00°26'39" W
T27	41.23'	N 10°50'21" W

VICINITY MAP
NOT TO SCALE



EASEMENT DETAIL
NOT TO SCALE
(FOR CLARITY PURPOSES, PROPOSED 1.5' HEACOCK ST. AND 2' IRIS AVE. SIDEWALK EASEMENTS NOT SHOWN IN DETAIL)





TYP. SECTION HEACOCK ST.
ARTERIAL
(STD. NO. 104A)
FROM 1300' SOUTH OF IRIS TO 2600' SOUTH
N.T.S.

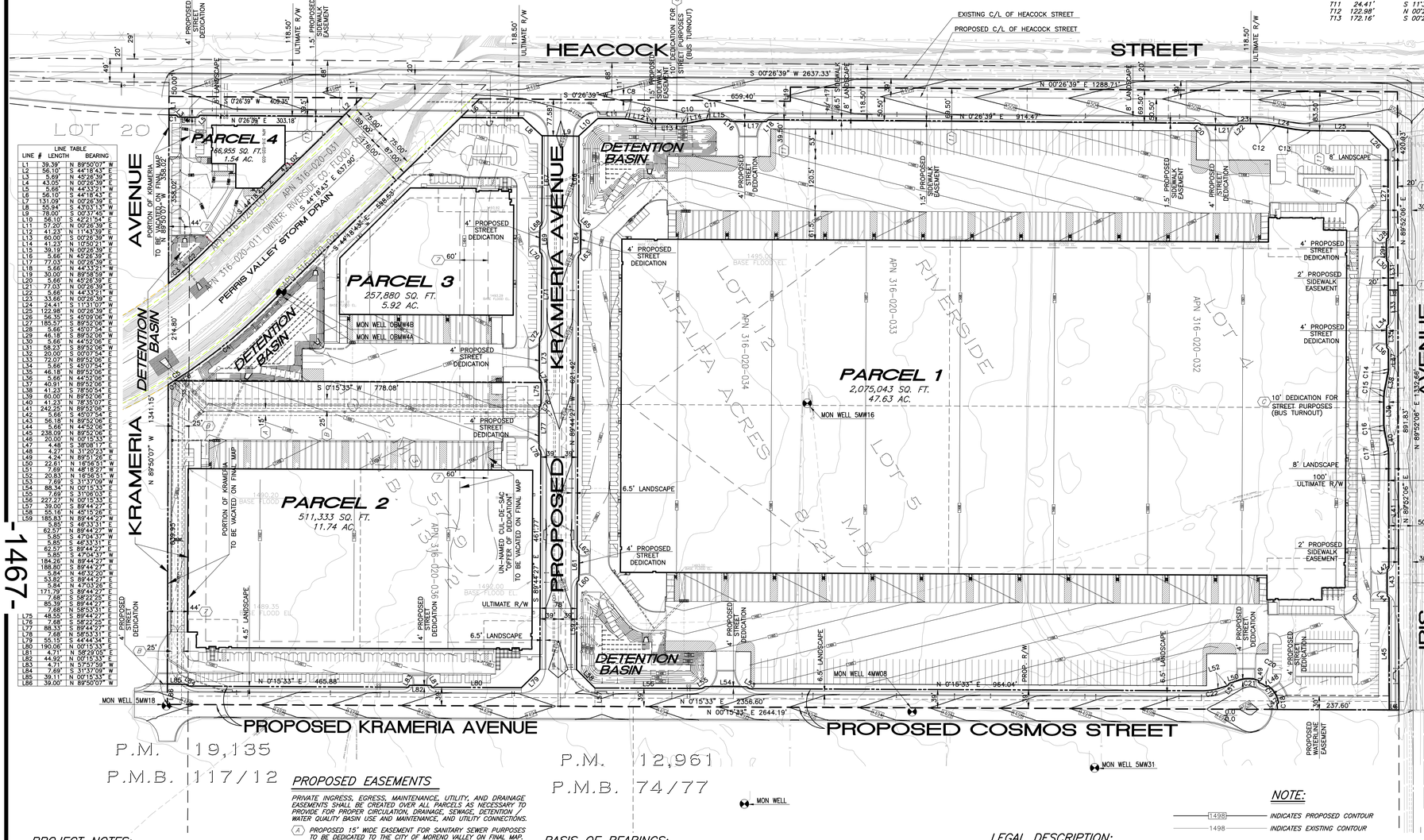
TYP. SECTION HEACOCK ST.
ARTERIAL
(STD. NO. 104A)
FROM IRIS TO 1300' SOUTH
N.T.S.

TYP. SECTION COSMOS ST.
INDUSTRIAL COLLECTOR
(STD. NO. 106)
N.T.S.

TYP. SECTION KRAMERIA AVE.
INDUSTRIAL COLLECTOR
(STD. NO. 106)
N.T.S.

TYP. SECTION IRIS AVE.
ARTERIAL
(STD. NO. 104A)
N.T.S.

TYP. SECTION KRAMERIA AVE.
INDUSTRIAL COLLECTOR
(STD. NO. 106)
N.T.S.



P.M. 19,135
P.M.B. 117/12

P.M. 12,961
P.M.B. 74/77

LOT 20

LINE TABLE

LINE #	LENGTH	BEARING
L1	19.39'	N 89°50'07" W
L2	56.10'	S 44°18'43" E
L3	5.69'	S 45°26'39" W
L4	43.05'	N 00°26'39" E
L5	5.66'	N 44°33'21" W
L6	56.10'	S 44°18'43" E
L7	131.09'	N 00°26'39" E
L8	55.94'	S 43°03'13" W
L9	78.00'	S 00°37'45" W
L10	56.10'	S 42°21'54" E
L11	57.20'	N 00°26'39" E
L12	41.23'	N 11°43'39" E
L13	60.00'	S 00°26'39" W
L14	41.23'	N 11°50'21" W
L15	39.19'	N 00°26'39" E
L16	5.66'	N 44°26'39" E
L17	77.03'	N 00°26'39" E
L18	5.66'	N 44°33'21" W
L19	30.00'	N 89°58'59" W
L20	5.66'	N 45°26'39" W
L21	77.03'	N 00°26'39" E
L22	5.66'	N 44°33'21" W
L23	53.66'	N 00°26'39" E
L24	24.41'	N 11°31'07" W
L25	122.98'	N 00°26'39" E
L26	56.35'	S 45°09'06" W
L27	185.57'	N 89°52'06" E
L28	5.66'	S 45°07'54" E
L29	46.18'	N 89°52'06" E
L30	5.66'	N 44°52'06" E
L31	58.23'	S 89°52'06" W
L32	20.00'	S 00°07'54" E
L33	72.07'	N 89°52'06" E
L34	5.66'	S 45°07'54" E
L35	46.18'	N 89°52'06" E
L36	5.66'	N 89°52'06" E
L37	40.91'	N 89°52'06" E
L38	41.23'	N 78°50'54" E
L39	60.00'	N 89°52'06" E
L40	41.23'	N 78°35'07" E
L41	242.25'	N 89°52'06" E
L42	5.66'	S 45°07'54" E
L43	56.18'	N 89°52'06" E
L44	5.66'	N 44°52'06" E
L45	238.09'	N 89°52'06" E
L46	20.00'	N 09°15'33" E
L47	4.48'	N 89°08'17" E
L48	4.27'	N 31°20'23" E
L49	4.27'	N 89°51'37" E
L50	22.61'	N 16°56'51" W
L51	7.69'	N 48°18'27" W
L52	20.83'	N 16°56'51" W
L53	7.69'	S 31°37'09" W
L54	88.34'	N 09°15'33" E
L55	7.69'	S 31°06'03" E
L56	227.27'	N 09°15'33" E
L57	39.00'	S 89°44'27" E
L58	55.16'	N 45°15'26" E
L59	185.83'	S 89°44'27" E
L60	2.85'	N 46°33'31" E
L61	62.57'	N 89°44'27" E
L62	5.85'	N 47°04'37" W
L63	5.85'	N 46°33'31" E
L64	62.57'	S 89°44'27" E
L65	5.85'	N 47°04'37" W
L66	184.26'	N 89°44'27" E
L67	188.80'	S 89°44'27" E
L68	5.84'	N 46°33'31" E
L69	53.82'	S 89°44'27" E
L70	5.84'	N 47°04'37" W
L71	171.79'	S 89°44'27" E
L72	7.68'	N 89°22'25" E
L73	85.33'	S 89°44'27" E
L74	7.68'	N 89°37'35" W
L75	48.55'	S 89°44'27" E
L76	7.68'	S 89°22'25" E
L77	88.33'	S 89°44'27" E
L78	7.68'	N 89°53'31" W
L79	55.15'	S 44°44'34" E
L80	190.06'	N 00°15'33" E
L81	4.71'	N 58°29'09" E
L82	44.92'	N 00°15'33" E
L83	4.71'	N 31°37'59" W
L84	7.69'	S 31°06'03" E
L85	39.11'	N 00°15'33" E
L86	39.00'	N 89°50'07" W

CURVE TABLE

CURVE #	DELTA	RADIUS	LENGTH
C1	0°16'59"	3,000.00'	15.09'
C2	2°09'21"	911.00'	34.28'
C3	9°38'50"	911.00'	153.38'
C4	10°07'31"	1,087.00'	192.09'
C5	2°45'53"	1,087.00'	52.45'
C6	1°53'00"	1,087.00'	35.74'
C7	0°50'16"	1,087.00'	15.88'
C8	1°11'00"	62.50'	7.38'
C9	1°11'00"	62.50'	12.31'
C10	1°11'00"	62.50'	12.31'
C11	1°11'00"	37.50'	7.38'
C12	1°04'29"	2,350.00'	44.06'
C13	1°04'28"	262.00'	50.64'
C14	1°11'00"	62.50'	12.31'
C15	1°11'00"	62.50'	12.31'
C16	1°11'00"	62.50'	12.31'
C17	1°11'00"	37.50'	7.38'
C18	10°42'19"	61.00'	11.40'
C19	38°38'50"	55.00'	43.80'
C20	17°39'38"	61.00'	18.80'
C21	36°43'19"	55.00'	46.50'
C22	17°12'24"	100.00'	30.03'

PROJECT NOTES:

1. THE LAND SHOWN HEREON IS TO BE SUBDIVIDED INTO FOUR (4) PARCELS EACH CONTAINING ONE (1) BUILDING FOR INDUSTRIAL PURPOSES. SEE SITE PLAN FOR FULL BUILDING PARTICULARS.
2. TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN: CSIP WR MORENO VALLEY, LLC, A DELAWARE LIMITED LIABILITY COMPANY.
3. PROJECT ADDRESS: 24015 IRIS AVENUE, MORENO VALLEY, CA 92551
4. ASSESSOR'S PARCEL NUMBERS: 316-020-032, 316-020-033, 316-020-034, 316-020-035, 316-020-036
5. SUBJECT SITE IS ZONED: "I" (INDUSTRIAL) "SP-208" (SPECIFIC PLAN 208) (OLEANDER SPECIFIC PLAN)
   PER MAP. III-1 CONTAINED IN MORENO VALLEY INDUSTRIAL AREA PLAN (SPECIFIC PLAN 208) OF THE CITY OF MORENO VALLEY. (MOST RECENTLY AMENDED BY ORDINANCE NO. 598, MARCH 12, 2002).
6. SUBJECT SITE IS ENCUMBERED BY THE EFFECT OF AN INSTRUMENT DECLARING SAID LAND TO BE WITHIN THE MARCH AIR FORCE BASE REDEVELOPMENT PROJECT AREA, RECORDED FEBRUARY 6, 2004 AS INST. NO. 04-86467, O.R.
7. THE PROPERTY INDICATED HEREON IS SITUATED WITHIN THE FLOOD INSURANCE RATE MAP (F.I.R.M.) PANEL NO. 065074-0025B, DATED MAY 17, 1993. THE SOUTHERLY PORTION OF SAID LAND IS SITUATED WITHIN AN AREA REVISED BY A LETTER OF MAP REVISION (LOMR), DATED OCTOBER 18, 1996. SAID PROPERTY IS LOCATED IN FOUR DIFFERENT FLOOD ZONES. THE LOCATION OF THE LINES SEPARATING THE DIFFERENT FLOOD ZONES IS VERY APPROXIMATE IN NATURE DUE TO THE SMALL SCALE OF SAID F.I.R.M. AND SAID LOMR. SAID APPROXIMATE LINES ARE SHOWN HEREON. THE FOUR DIFFERENT FLOOD ZONES ARE AS FOLLOWS:
   ZONE "X-UNSHADED" (AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAIN);
   ZONE "X-SHADED" (AREAS BETWEEN LIMITS OF THE 100-YEAR FLOOD AND 500-YEAR FLOOD, OR CERTAIN AREAS SUBJECT TO 100-YEAR FLOODING WITH AVERAGE DEPTHS LESS THAN ONE (1) FOOT);
   ZONE "AO, DEPTH 1 FOOT" (SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD, REVISED 100-YEAR FLOODPLAIN);
   ZONE "AH" (SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD, FLOOD DEPTHS OF 1 TO 3 FEET (USUALLY AREAS OF PONDING), BASE FLOOD ELEVATIONS DETERMINED).
8. SUBJECT SITE IS CURRENTLY AN OPEN FIELD WITHOUT STRUCTURES EXCEPT FOR A COUPLE OF FARM STRUCTURES AND THERE ARE ZERO TOTAL PAVED AND MARKED PARKING SPACES.
9. ALL DRIVEWAY APPROACHES ARE PER CITY STANDARD 118C
10. A PRELIMINARY WQMP IS INCLUDED IN THE SUBMITTAL PACKAGE ADDRESSING STORM WATER RUNOFF - SELECTED BMP'S ARE SHOWN HEREON, SEE WQMP FOR FULL DETAILS.
11. SUBJECT SITE CONTAINS NO KNOWN EXISTING SCEPTIC, SEWER, IRRIGATION, OR UNDERGROUND STORM DRAIN FACILITIES.

AREA SUMMARY

PARCEL 1 (GROSS)	2,327,523 S.F. 53.43 AC.
PARCEL 2 (GROSS)	570,468 S.F. 13.10 AC.
PARCEL 3 (GROSS)	288,793 S.F. 6.63 AC.
PARCEL 4 (GROSS)	82,522 S.F. 1.89 AC.
TOTAL AREA (GROSS):	3,269,306 S.F. 75.05 AC.
DEDICATIONS:	
EXIST. HEACOCK ST. & IRIS AVE. (11)	147,265 S.F. 3.38 AC.
PROP. HEACOCK BUS TURNOUT (15)	1,223 S.F. 0.028 AC.
PROP. HEACOCK ST 4' DRWY DEDICATIONS	837 S.F. 0.02 AC.
PROP. IRIS AVENUE W/4' DRWY DEDICATIONS	18,477 S.F. 0.42 AC.
PROP. IRIS AVE. BUS TURNOUT (13)	1,222 S.F. 0.028 AC.
PROP. KRAMERIA AVE. W/4' DRWY DEDICATIONS	130,199 S.F. 2.99 AC.
PROP. COSMOS STREET W/4' DRWY DEDICATIONS	58,872 S.F. 1.35 AC.
TOTAL DEDICATIONS:	358,095 S.F. 8.22 AC.
PARCEL 1 (NET)	2,075,043 S.F. 47.63 AC.
PARCEL 2 (NET)	511,333 S.F. 11.74 AC.
PARCEL 3 (NET)	257,880 S.F. 5.92 AC.
PARCEL 4 (NET)	66,955 S.F. 1.54 AC.
TOTAL AREA (NET):	2,911,211 S.F. 66.83 AC.
TOTAL DEDICATIONS:	358,095 S.F. 8.22 AC.
TOTAL AREA (GROSS):	3,269,306 S.F. 75.05 AC.

PROPOSED EASEMENTS

PRIVATE INGRESS, EGRESS, MAINTENANCE, UTILITY, AND DRAINAGE EASEMENTS SHALL BE CREATED OVER ALL PARCELS AS NECESSARY TO PROVIDE FOR PROPER CIRCULATION, DRAINAGE, SEWAGE, DETENTION / WATER QUALITY BASIN USE AND MAINTENANCE, AND UTILITY CONNECTIONS.

(A) PROPOSED 15' WIDE EASEMENT FOR SANITARY SEWER PURPOSES TO BE DEDICATED TO THE CITY OF MORENO VALLEY ON FINAL MAP.

(B) PROPOSED 25' WIDE EASEMENTS FOR STORM DRAIN PURPOSES TO BE DEDICATED TO THE CITY OF MORENO VALLEY ON FINAL MAP.

(C) PROPOSED 10' WIDE EASEMENT FOR PUBLIC HIGHWAY PURPOSES TO BE DEDICATED TO THE CITY OF MORENO VALLEY ON FINAL MAP. FOR CONSTRUCTION OF BUS TURN OUT.

PROPOSED SIDEWALK EASEMENT TO BE DEDICATED TO THE CITY OF MORENO VALLEY ON FINAL MAP

PARCEL 1:	4,264 S.F. (INCLUDED IN NET AREA)
PARCEL 2:	0.00 S.F.
PARCEL 3:	199 S.F. (INCLUDED IN NET AREA)
PARCEL 4:	478 S.F. (INCLUDED IN NET AREA)

NOTE: THE FOLLOWING VACATIONS ARE INCLUDED IN THE NET AREA OF PARCELS 2, 3 & 4 SHOWN AS (7). SAID VACATIONS ARE "IRREVOCABLE OFFERS OF DEDICATION" AND HAVE NOT BEEN ACCEPTED BY THE CITY OF MORENO VALLEY.

PORTION OF KRAMERIA	43,411 S.F. 1.00 AC.
CUL-DE-SAC	61,247 S.F. 1.41 AC.

BASIS OF BEARINGS:

THE BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF HEACOCK ST. BEING N 00°26'39" E AS PER RECORD OF SURVEY R.S. 97/29-36, IN THE CITY OF MORENO VALLEY, RECORDS OF COUNTY OF RIVERSIDE, STATE OF CALIFORNIA.

EASEMENTS & TITLE EXCEPTIONS:

THE FOLLOWING EASEMENTS AND EXCEPTIONS AS CONTAINED IN PRELIMINARY TITLE REPORT BY STEWART TITLE OF CALIFORNIA ORDER NUMBER 361032 WITH EFFECTIVE DATE OF JANUARY 10, 2001.

(3) PERTAINS TO THE EFFECT OF PARCEL MAP NO. 5779 ON FILE IN BOOK 13 PAGE 72, OF PARCEL MAPS. (PARCEL MAP NO. 5779 PLOTTED HEREON).

(4) PERTAINS TO THE EFFECT OF A RECORD OF SURVEY ON FILE IN BOOK 65 PAGE 54, OF RECORDS OF SURVEY, WHICH PURPORTS TO SHOW THE HEREON DESCRIBED PROPERTY.

(5) PERTAINS TO THE EFFECT OF A RECORD OF SURVEY ON FILE IN BOOK 97 PAGE 29, OF RECORDS OF SURVEY, WHICH PURPORTS TO SHOW THE HEREON DESCRIBED PROPERTY.

(6) PERTAINS TO THE EFFECT OF A RECITAL AS CONTAINED ON PARCEL MAP NO. 5779, AS FOLLOWS:
NATURAL WATERCOURSES SHALL BE KEPT FREE OF ALL BUILDINGS, OBSTRUCTIONS AND ENCROACHMENT BY LAND FILLS. ANY BUILDINGS WITHIN 200 FEET OF THE NATURAL WATER COURSE SHALL HAVE PADS AT LEAST 2 FEET ABOVE THE SURROUNDING GROUND.

(7) PERTAINS TO THE EFFECT OF A DECLARATION OF DEDICATION RECORDED JUNE 19, 1974 AS INST. NO. 75876 OF OFFICIAL RECORDS, PURPORTING TO IRREVOCABLY DEDICATE IN PERPETUITY FOR PUBLIC ROAD PURPOSES, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICE USES. (DECLARATION OF DEDICATION PLOTTED HEREON)
- TO BE VACATED ON FINAL MAP

(8) PERTAINS TO THE EFFECT OF AN AFFIDAVIT AND STATEMENT RECORDED FEBRUARY 6, 2004 AS INST. NO. 2004-0086467 OF OFFICIAL RECORDS, BASED ON THE FACT THAT SAID LAND IS INCLUDED WITHIN A PROJECT AREA OF THE MARCH AIR FORCE BASE PROJECT AREA REDEVELOPMENT AGENCY, AND THAT PROCEEDINGS FOR THE REDEVELOPMENT OF SAID PROJECT HAVE BEEN INSTITUTED UNDER THE REDEVELOPMENT LAW AS DISCLOSED BY SAID DOCUMENT.

(9) PERTAINS TO THE EFFECT OF A STATEMENT OF PROCEEDINGS RECORDED JUNE 11, 2007 AS INST. NO. 2007-0380610 OF OFFICIAL RECORDS, BASED ON THE FACT THAT SAID LAND IS INCLUDED WITHIN A PROJECT AREA OF THE MARCH AIR FORCE BASE PROJECT AREA REDEVELOPMENT AGENCY, AND THAT PROCEEDINGS FOR THE REDEVELOPMENT OF SAID PROJECT HAVE BEEN INSTITUTED UNDER THE REDEVELOPMENT LAW AS DISCLOSED BY SAID DOCUMENT.

(10) PERTAINS TO THE EFFECT OF A NOTICE OF CODE VIOLATION RECORDED OCTOBER 26, 2007 AS INST. NO. 2007-0659448 OF OFFICIAL RECORDS, BASED UPON THE OWNER(S) NON-COMPLIANCE TO CORRECT MUNICIPAL CODE VIOLATIONS, INCLUDING LIABILITY OF ALL COSTS AND EXPENSES ASSESSED AGAINST THE PROPERTY AS A LIEN FOR ABATEMENT.

(11) PERTAINS TO THE EFFECT OF AN EASEMENT RECORDED MAY 7, 2009 AS INST. NO. 2009-0228079 OF OFFICIAL RECORDS, FOR PUBLIC HIGHWAY PURPOSES, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES FACILITIES AND RIGHTS INCIDENTAL THERETO IN FAVOR OF CITY OF MORENO VALLEY, A MUNICIPAL CORPORATION.

NOTE:

1498 INDICATES PROPOSED CONTOUR
1498 INDICATES EXISTING CONTOUR

LEGAL DESCRIPTION:

THE LAND REFERRED TO HEREON IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF RIVERSIDE, CITY OF MORENO VALLEY, DESCRIBED AS FOLLOWS:

LOT(S) 12 AND 13 IN BLOCK 2 OF RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 8 PAGE(S) 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, BY DEED RECORDED MAY 8, 1953 IN BOOK 1470 PAGE 215 AND RE-RECORDED MAY 13, 1955 IN BOOK 1737 PAGE 140, BOTH OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

ALSO EXCEPTING THEREFROM THE WESTERLY 30 FEET AS CONVEYED TO THE COUNTY OF RIVERSIDE, BY DEED RECORDED JULY 8, 1974 AS INSTRUMENT NO. 84961 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

ALSO EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, BY DEED RECORDED MARCH 15, 1995 AS INSTRUMENT NO. 79418 AND RE-RECORDED APRIL 4, 1995 AS INSTRUMENT NO. 102439 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

LOT(S) 4 AND 5 IN BLOCK 2 OF RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 8 PAGE(S) 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

MAP & OTHER REFERENCES:

MAP REFERENCES:

R1	RIVERSIDE ALFALFA ACRES	05-04-1911	M.B. 8 PG. 21
R2	RECORD OF SURVEY	06-13-1979	R.S. 65 PG. 54-62
R3	RECORD OF SURVEY	09-14-1994	R.S. 97 PG. 29-36
R4	RECORD OF SURVEY	02-15-2001	R.S. 110 PG. 30-40
R5	PARCEL MAP 5779	06-25-1974	P.M.B. 13 PG. 72
R6	PARCEL MAP 11,012	06-12-1978	P.M.B. 51 PG. 37
R7	PARCEL MAP 12,961	06-04-1980	P.M.B. 74 PG. 77
R8	PARCEL MAP 19,135	09-09-1983	P.M.B. 117 PG. 12
R9	RECORD OF SURVEY	11-16-1988	R.S. 82 PG. 12

BENCHMARK:

CITY OF MORENO VALLEY DESIGNATION:
M-33,RESET 11/14/89

BRASS CAP IN CURB; 78 FT. NORTH AND 45 FT. EAST OF THE CENTERLINE PERRIS BLVD. AND JOHN F. KENNEDY DR. INTERSECTION SET IN TOP OF CURB 5 FT. NORTH OF THE E.C.R. AND STAMPED M-33 RESET.

ELEVATION = 1533.10' (NGVD '29/ SUNNYMEAD QUAD)

ABBREVIATIONS:

A.C.	ASPHALT CONCRETE
APN	ASSESSOR'S PARCEL NUMBER
B.W.	BACK OF WALK
BLDG	BUILDING
C.L.F.	CHAIN LINK FENCE
C.B.	CATCH BASIN
C/L	CENTERLINE
C.F.	CURB FACE
CONC.	CONCRETE
(0.00)	EXISTING ELEVATION
E.P.	EDGE OF PAVEMENT
EXIST.	EXISTING
F.H.	FIRE HYDRANT
F.G.	FINISH GRADE
F.S.	FINISH SURFACE
F.F.	FINISH FLOOR
F.L.	FLOW LINE
G.B.	GRADE BREAK
H.C.	HANDICAP
H	HEIGHT OF RETAINING
H.P.	HIGH POINT
INV.	INVERT
L.P.	LOW POINT
M.H.	MANHOLE
N.G.	NATURAL GRADE
P.V.C.	POLYVINYLCHLORIDE
P.P.	POWER POLE
PKWY DRAIN	PARKWAY GRAIN
R/W	RIGHT OF WAY
R	RATE OF GRADE
R.D.	RADIUS POINT
R.C.P.	REINFORCED CONCRETE PIPE
ST.LT.	STREET LIGHT
S =	SLOPE
S.D.	STORM DRAIN
S.F.	SQUARE FEET
T.C.	TOP OF CURB
T.S.	TOP OF CONCRETE SLAB
T.O.P.	TOP OF PIPE
T.F.	TOP OF FOOTING
T.W.	TOP OF WALL
T.R.	TOP OF RAIL
T.G.	TOP OF GRATE
TOP	TOP OF SLOPE
TOE	TOE OF SLOPE
T.B.	TOP OF BERM
TRANS PAD	TRANSFORMER PAD

LEGEND:

FH	EXIST. FIRE HYDRANT
WM	EXIST. WATER METER
WV	EXIST. WATER VALVE
GAS V.	EXIST. GAS VALVE
	GUY WIRE/DEADMAN
PP	EXIST. POWER POLE
	EXIST. TRAFFIC SIGNAL
	EXIST. CROSSWALK
SLB	STREET LIGHTING BOX
	EXIST. STREET LIGHT
SDMH	EXIST. STORMDRAIN MANHOLE
SMH	EXIST. SEWER MANHOLE
VLT.	EXIST. VAULT
	EXIST. SIGN
	TREE
TSB	EXIST. TRAFFIC SIGNAL BOX
GM	EXIST. GAS METER
MB	EXIST. MAIL BOX
TMH	EXIST. TELEPHONE MANHOLE
X 1854.69	EXIST. GRADE ELEVATION
	EXIST. EDGE OF A.C. PAVEMENT
	EXIST. CURB AND GUTTER
S 8"	EXIST. SANITARY SEWER
24" SD	EXIST. STORM DRAIN
G 8"	EXIST. GAS LINE
T	EXIST. TELEPHONE CONDUIT
W 10"	EXIST. WATER LINE
1498	EXIST. CONTOUR
	R/W LINE
	PROPERTY LINE
	EASEMENT LINE
	MONITORING WELL

UTILITY PUREYORS:

TELEPHONE:
VERIZON - HEMET
150 S. JUANITA ST.
HEMET, CA 92543
951-929-9412

ELECTRICAL:
SCE - SANTA ANA
P.O. BOX 11982
SANTA ANA, CA, 92711

WATER:
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE ROAD.
PERRIS, CA 92585
909-928-6111

CABLE:
TIME WARNER COMM. - ONTARIO
3281 GUASTI ROAD, STE. 350
ONTARIO, CA 91761
909-951-929-9412

SEWER:
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE ROAD.
PERRIS, CA 92585
909-928-6111

GAS:
SOUTHERN CALIFORNIA GAS
COMPANY-REDLANDS
1981 W. LUGONIA AV. P.O. BOX 3003
REDLANDS, CA 92374
(562) 699-7411

PREPARED BY:

Thienes Engineering, Inc.
CIVIL ENGINEERING • LAND SURVEYING
14349 FIRESTONE BOULEVARD
LA MIRADA, CALIFORNIA 90638
PH.(714)521-4811 FAX(714)521-4173

SURVEYOR:

PREPARED UNDER THE SUPERVISION OF:

BRIAN L. THIENES'
P.L.S. NO. 5750
REG. EXP. DEC. 31, 2013

10/25/12
DATE

PROFESSIONAL LAND SURVEYOR BRIAN L. THIENES NO. 5750 EXP.12/31/13 STATE OF CALIFORNIA

DATE OF PREPARATION:

REVISED 3/10/2008, 1/13/2011, 1/17/2011, 04/06/11, 05/23/11, 08/28/12, 10/25/2012

CITY OF MORENO VALLEY CASE No. PA11-0007

Last Updated:11/16/13
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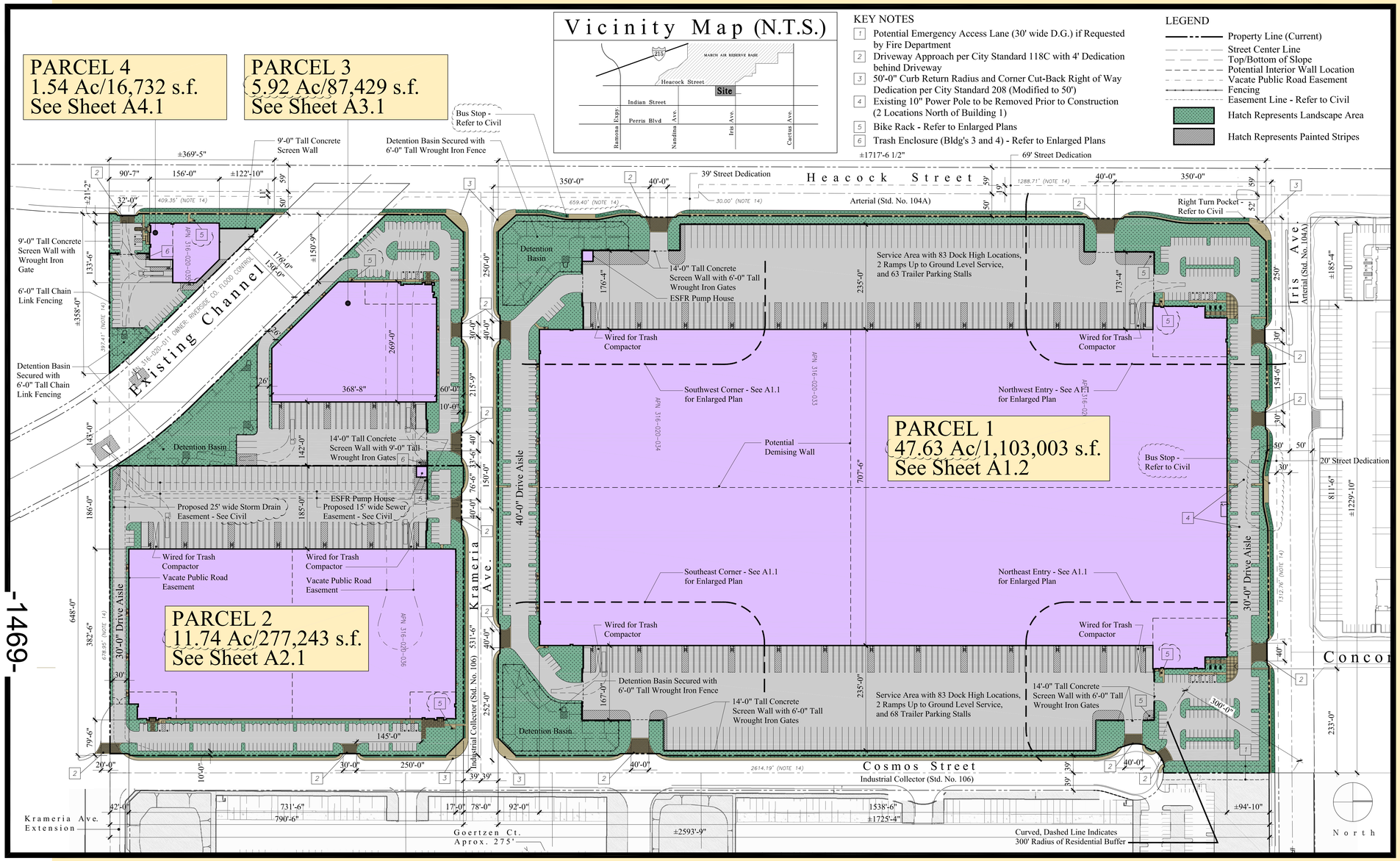

Vicinity Map (N.T.S.)

KEY NOTES

1. Potential Emergency Access Lane (30' wide D.G.) if Requested by Fire Department
2. Driveway Approach per City Standard 118C with 4' Dedication behind Driveway
3. 50'-0" Curb Return Radius and Corner Cut-Back Right of Way Dedication per City Standard 208 (Modified to 50')
4. Existing 10" Power Pole to be Removed Prior to Construction (2 Locations North of Building 1)
5. Bike Rack - Refer to Enlarged Plans
6. Trash Enclosure (Bldg's 3 and 4) - Refer to Enlarged Plans

LEGEND

- Property Line (Current)
- Street Center Line
- Top/Bottom of Slope
- Potential Interior Wall Location
- Vacate Public Road Easement
- Fencing
- Easement Line - Refer to Civil
- Hatch Represents Landscape Area
- Hatch Represents Painted Stripes

MASTERPLAN SUMMARY

PARCEL 1

Gross Site Area	53.43 Acres	2,327,523 s.f.
Net Site Area	47.63 Acres	2,075,043 s.f.
Building Area		1,103,003 s.f.
Site Coverage		53.16%
Parking Required		400 Spaces
Office (1/250)	27,575 s.f.	110.3 Spaces
Warehouse (1/1,000)	20,000 s.f.	20.0 Spaces
Warehouse (1/2,000)	20,000 s.f.	10.0 Spaces
Warehouse (1/4,000)	1,035,428 s.f.	258.9 Spaces
Parking Provided (10 Accessible Stalls Provided)		418 Spaces
Parking Ratio		.38/1,000
Bike Racks (5% of 400 Required Spaces = 20.0 Bike Spaces)		Provided: 20 Spaces
Landscape Area	10.15%	210,818 s.f.

(166 Dock Doors, 4 Grade Level Ramps and 131 Trailer Storage Stalls)

PARCEL 2

Gross Site Area	13.10 Acres	570,468 s.f.
Net Site Area	11.74 Acres	511,333 s.f.
Building Area		277,243 s.f.
Site Coverage		54.22%
Parking Required		131 Spaces
Office (1/250)	11,100 s.f.	44.4 Spaces
Warehouse (1/1,000)	20,000 s.f.	20.0 Spaces
Warehouse (1/2,000)	20,000 s.f.	10.0 Spaces
Warehouse (1/4,000)	226,143 s.f.	56.6 Spaces
Parking Provided (5 Accessible Stalls Provided)		132 Spaces
Parking Ratio		.48/1,000
Bike Racks (5% of 131 Required Spaces = 6.6 Bike Spaces)		Provided: 8 Spaces
Landscape Area	7.72%	39,514 s.f.

(40 Dock Doors, 2 Grade Level Ramps and 47 Trailer Storage Stalls)

PARCEL 3

Gross Site Area	6.63 Acres	288,793 s.f.
Net Site Area	5.92 Acres	257,880 s.f.
Building Area		87,429 s.f.
Site Coverage		33.90%
Parking Required		75 Spaces
Office (1/250)	8,750 s.f.	35.0 Spaces
Warehouse (1/1,000)	20,000 s.f.	20.0 Spaces
Warehouse (1/2,000)	20,000 s.f.	10.0 Spaces
Warehouse (1/4,000)	38,679 s.f.	9.7 Spaces
Parking Provided (4 Accessible Stalls Provided)		86 Spaces
Parking Ratio		.98/1,000
Bike Racks (5% of 75 Required Spaces = 3.8 Bike Spaces)		Provided: 4 Spaces
Landscape Area	22.86%	59,084 s.f.

(20 Dock Doors, 2 Grade Level Ramps and 3 Trailer Storage Stalls)

PARCEL 4

Gross Site Area	1.89 Acres	82,522 s.f.
Net Site Area	1.54 Acres	66,955 s.f.
Building Area		16,732 s.f.
Site Coverage		24.99%
Parking Required		42 Spaces
Office (1/250)	4,200 s.f.	16.8 Spaces
Manufacturing (1/500)	12,532 s.f.	25.1 Spaces
Parking Provided (2 Accessible Stalls Provided)		42 Spaces
Parking Ratio		2.51/1,000
Bike Racks (5% of 42 Required Spaces = 2.1 Bike Spaces)		Provided: 3 Spaces
Landscape Area	22.69%	15,234s.f.

(2 Dock Doors, 1 Grade Level Ramps and 0 Trailer Storage Stalls)

MASTERPLAN TOTALS

Net Site Area	66.83 Acres	2,911,211 s.f.
Building Area		1,484,407 s.f.
Site Coverage		50.99%
Landscape Area	11.13%	324,337 s.f.

General Notes

1. For Property Line Information, Refer to Conceptual Grading Plan.
2. For Grade Elev's and Contour Lines, Refer to Conceptual Grading Plan.
3. All Lighting to Conform with Municipal Standards.
4. All Signage and Graphics to Conform with Municipal Standards.
5. All Parking Stalls shall be 9' x 18' and Double Striped.
6. All Landscape Fingers shall have Minimum Interior Dim of 5' wide by 16' long, Exclusive of Curbs, Step Outs and Other Hard Surfaces.
7. For all Landscape Fingers and End Planters adjacent to a Park. Stall, a 12" Conc Stepout, in addition to the required Curbs, Shall be Provided.
8. Each Gated Entrance shall be Provided with Presence Loop Detectors (or other device) within 1 or 2 feet of the Gate.
9. Trash enclosures shall be designed per modified City standards to include a fully covered roof over the enclosure and accommodate two trash bins, one for trash and the other for recyclables (Provided at Bldg's 3 and 4 - See Enlarged Plans).
10. All Roofs to be Class-A
11. Series 3200 Knox Boxes to be Installed at all Gate Locations and Entry Doors
12. Utility Purveyors:
    Water: Eastern Municipal Water District, 909-928-6111
    Sewer: Eastern Municipal Water District, 909-928-6111
    Gas: Southern California Gas Company-Redlands, 562-699-7411
    Electrical: SCE-Santa Ana
    Telephone: Verizon-Hemet, 951-929-9412
    Cable: Time Warner Comm.-Ontario, 909/951-929-9412
13. Subject Site is Zoned "I" (Industrial)
    Specific Plan "SP-208" (Oleander Specific Plan)
14. PL Distances provided for Reference Only - Refer to Civil Drawings for Property Line Bearings and Distances and for Horizontal Control
15. FEMA Flood Zone Designations are X-Unshaded, X-Shaded, AO, and AH - Refer to Tentative Parcel Map for Additional Information
16. See Sheet A0.2 for Typical Street Sections
17. All offsite Street Improvements shall have Smooth Transitions at the Project's Boundary
18. Refer to Landscape Plans for 36" Tall Hedge adjacent to Parking Areas along Heacock Street and Iris Avenue

Sheet List

A0.1 - Conceptual Masterplan
A0.2 - Site Plan Photos / Street Sections

A1.1 - Building 1 Enlarged Site Plans
A1.2 - Building 1 Floor Plan
A1.3 - Building 1 Roof Plan
A1.41-1.44 - Building 1 Elevations

A2.1 - Building 2 Enlarged Site Plan
A2.2 - Building 2 Floor Plan
A2.3 - Building 2 Roof Plan
A2.41-2.42 - Building 2 Elevations

A3.1 - Building 3 Enlarged Site Plan
A3.2 - Building 3 Floor and Roof Plans
A3.3 - Building 3 Elevations

A4.1 - Building 4 Site, Floor, Roof Plans
A4.2 - Building 4 Elevations

Civil 1 of 3 - Conceptual Grading Plan
Civil 2 of 3 - Conceptual Grading Plan
Civil 3 of 3 - Conceptual Utility Plan
Tentative Parcel Map

LS 1 of 7 - Landscape Plan - Bldg 4
LS 2 of 7 - Landscape Plan - Bldg 3
LS 3 of 7 - Landscape Plan - Bldg 2
LS 4 of 7 - Landscape Plan - Bldg 1, Quad 1
LS 5 of 7 - Landscape Plan - Bldg 1, Quad 2
LS 6 of 7 - Landscape Plan - Bldg 1, Quad 3
LS 7 of 7 - Landscape Plan - Bldg 1, Quad 4

A.P.N.

316-020-032
316-020-033
316-020-034
316-020-035
316-020-036

Project Directory

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Contact: Mike McAndrew

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Contact: Pam Steele, Deirdre McCollister

CIVIL:
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La Mirada, CA 90638
Telephone: 714 521 4811
Contact: Brian Thienes

LANDSCAPE:
EMERALD DESIGN
305 N. Harbor Blvd., Suite 222
Fullerton, CA 92832
Telephone: 714 680 0417
Contact: Charles Lamb

CONCEPTUAL MASTERPLAN

0 100 200 300 400

Scale: 1"=100'-0"

Legal Description

The land referred to hereon is situated in the State of California, County of Riverside, City of Moreno Valley, described as follows:

Lot(s) 12 and 13 in block 2 of Riverside Alfalfa Acres, in the City of Moreno Valley, in the County of Riverside, State of California, as shown by map on file in book 8 page(s) 21, of maps, records of Riverside County, California;

Excepting therefrom that portion conveyed to the Riverside County Flood Control and Water Conservation District, by deed recorded may 8, 1953 in book 1470 page 215 and re-recorded may 13, 1955 in book 1737 page 140, both of official records of Riverside County, California;

Also excepting therefrom the westerly 30 feet as conveyed to the County of Riverside, by deed recorded July 8, 1974 as instrument no. 84961 of official records of Riverside County, California;

Also excepting therefrom that portion conveyed to the Riverside County Flood Control and Water Conservation District, by deed recorded march 15, 1995 as instrument no. 79418 and re-recorded April 4, 1995 as instrument no. 102439 of official records of Riverside County, California.

Lot(s) 4 and 5 in block 2 of Riverside Alfalfa Acres, in the City of Moreno Valley, in the County of Riverside, State of California, as shown by map on file in book 8 page(s) 21, of maps, records of Riverside County, California.

WESTERN REALCO

Drawings, specifications and other documents, including those in electronic form, prepared by the Architect and the Architect's consultants are Instruments of Service for use solely with respect to this Project. The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service and shall retain all common law, statutory and other reserved rights, including copyrights.

MARCH BUSINESS CENTER

Moreno Valley, California

A0.1

25 October 2012
Revised - 13 November 2012

March Business Center
A0.1 - Conceptual Masterplan
October 25, 2012

BASTIEN AND ASSOCIATES, INC.
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www.BastienArchitects.com

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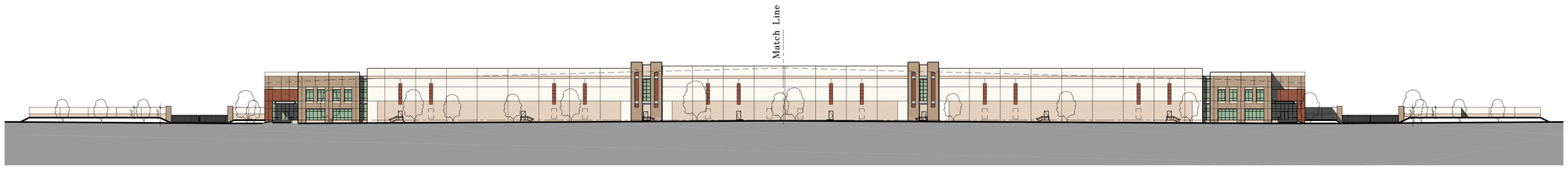


Overall North Elevation

(Scale: 1" = 40'-0")

Paint Legend

Paint 1 - Beige (Dunn Edwards, or Equal - DE6127, Finest Silk, LRV 74)

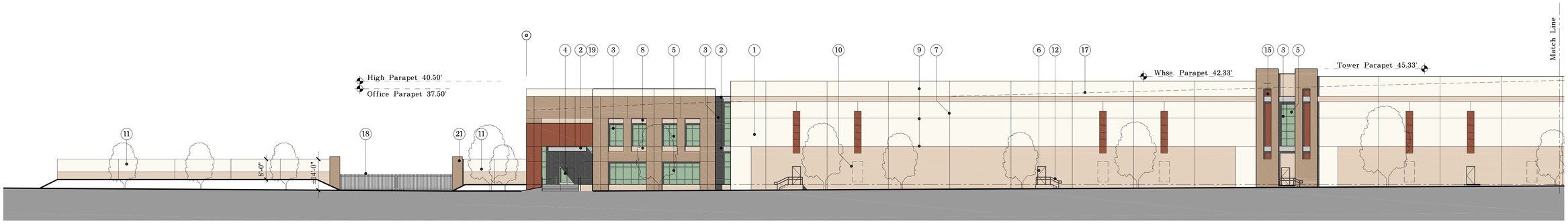
Paint 2 - Light Brown (Dunn Edwards, or Equal - DEC747, Sahara, LRV 52)

Paint 3 - Medium Brown (Dunn Edwards, or Equal - DE6096, Homestead, LRV 26)

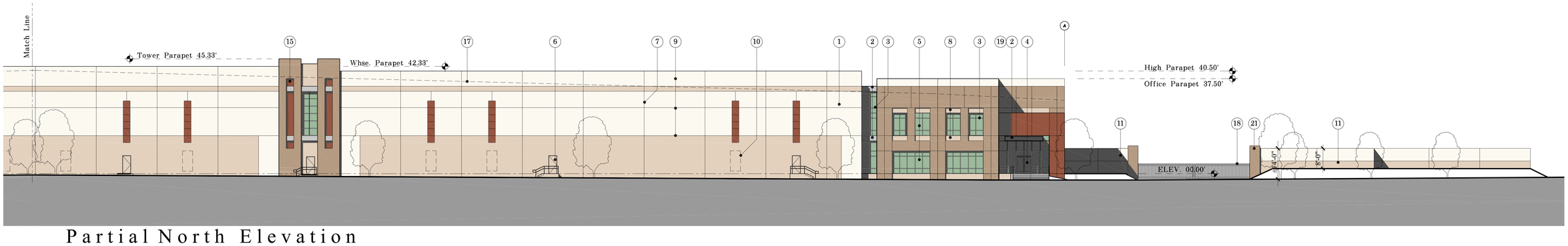
Paint 4 - Burnt Red (Dunn Edwards, or Equal - DE5188, Ruddy Oak, LRV 17)

Elevation Notes

1. Concrete Tilt-up panels with joints and reveals as indicated. Painted. Typical
2. Canopy: Bent .090" Thick Aluminum Panel w/ Kawneer "Silver" Finish over Steel Frame - Typ.
3. Clear Anodized, Center Glazed, Aluminum Mullion System (6" System at 2-Story Glazing, 4" System at Punched Openings)
4. 7'-0" High Medium Stile Entry Doors - Typ.
5. Medium performance Reflective Green Glass - Typ.
6. 3'x7' Galvanized Steel Man Door and Frame Painted to Match Adjacent Wall Surface
7. Panel Joint - Typ.
8. 3/4" Recess - Typ.
9. 3/4" Reveal - Typ.
10. Potential Louvered Air Intake Vent - Painted to Match Adjacent Wall Surface - Exact Location T.B.D.
11. 14'-0" High Concrete Screen Wall - Painted (Street Side of Wall will Incorporate Landscape Berm to Reduce Visual Wall Height to 8'-0")
12. Metal Hand and Guardrails Painted to Match Adjacent Wall Surface - Typ.
13. 9'x10' Steel Panel Sectional Door and Frame Painted to Match Adjacent Wall Surface
14. 12'x14' Steel Panel Sectional Door and Frame Painted to Match Adjacent Wall Surface
15. 3" Recess in Thickened Panel. Bent .090 Thick Alum. forms set into Recess.
16. External Down Spout and Overflow Scupper Painted to Match Adjacent Wall within Dock Area (All Other Locations to be Internally Drained)
17. Dashed Line Represents Roof Line Beyond
18. 6'-0" High, Rolling Wrought Iron Gate
19. Decorative Light Fixture to be Incorporated at Entry
20. Crossed Dashed Lines Represents Future Knock-Out Panels
21. 6" Deep Pilaster - Width Varies



Partial North Elevation



Partial North Elevation

CONCEPTUAL ELEVATIONS - BUILDING 1

0 16 32 48 64

Graphic Scale

Scale: 1/16" = 1'-0"

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MARCH BUSINESS CENTER

Moreno Valley, California

A 1.44

25 October 2012

March Business Center
A1.44 - Conceptual Elevations - Building 1
October 25, 2012

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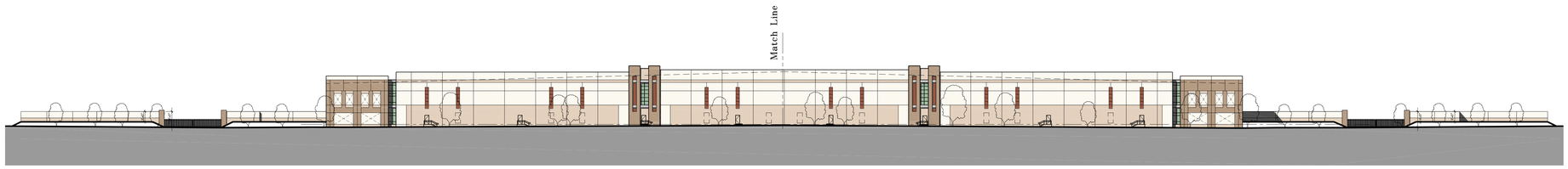


Overall South Elevation

(Scale: 1" = 40'-0")

Paint Legend

Paint 1 - Beige (Dunn Edwards, or Equal - DE6127, Finest Silk, LRV 74)

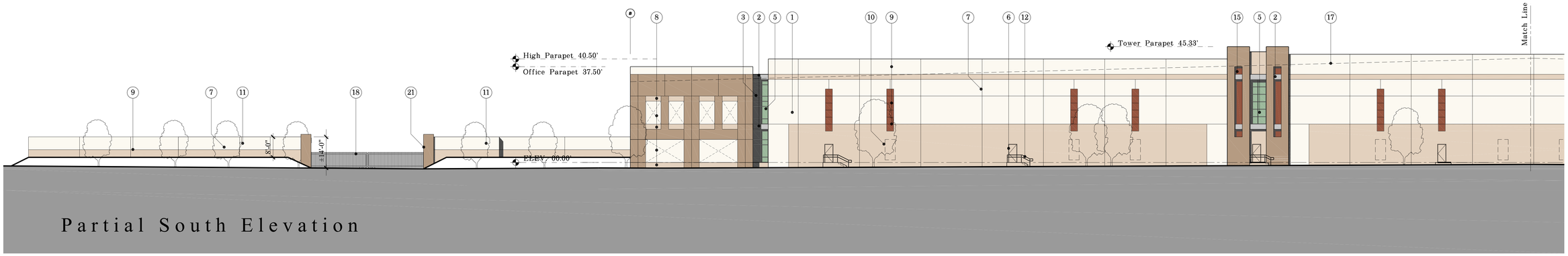
Paint 2 - Light Brown (Dunn Edwards, or Equal - DEC747, Sahara, LRV 52)

Paint 3 - Medium Brown (Dunn Edwards, or Equal - DE6096, Homestead, LRV 26)

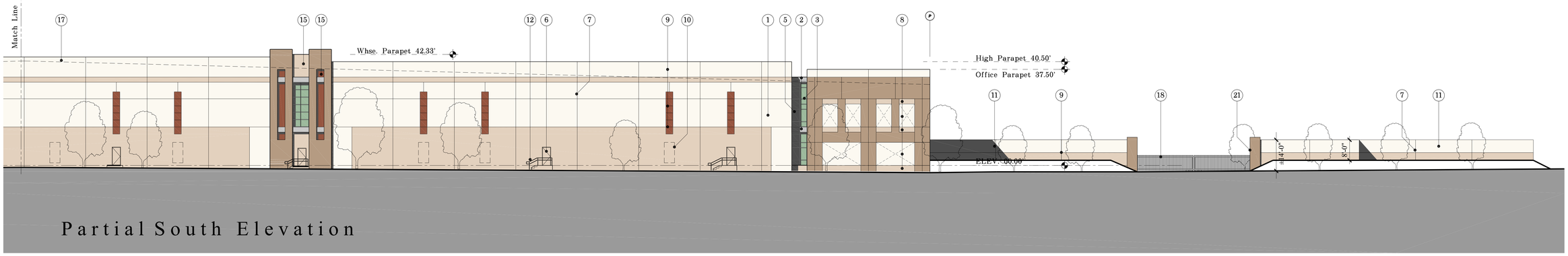
Paint 4 - Burnt Red (Dunn Edwards, or Equal - DE5188, Ruddy Oak, LRV 17)

Elevation Notes

1. Concrete Tilt-up panels with joints and reveals as indicated. Painted. Typical
2. Canopy: Bent .090" Thick Aluminum Panel w/ Kawneer "Silver" Finish over Steel Frame - Typ.
3. Clear Anodized, Center Glazed, Aluminum Mullion System (6" System at 2-Story Glazing, 4" System at Punched Openings)
4. 7'-0" High Medium Stile Entry Doors - Typ.
5. Medium performance Reflective Green Glass - Typ.
6. 3'x7' Galvanized Steel Man Door and Frame Painted to Match Adjacent Wall Surface
7. Panel Joint - Typ.
8. 3/4" Recess - Typ.
9. 3/4" Reveal - Typ.
10. Potential Louvered Air Intake Vent - Painted to Match Adjacent Wall Surface - Exact Location T.B.D.
11. 14'-0" High Concrete Screen Wall - Painted (Street Side of Wall will Incorporate Landscape Berm to Reduce Visual Wall Height to 8'-0")
12. Metal Hand and Guardrails Painted to Match Adjacent Wall Surface - Typ.
13. 9'x10' Steel Panel Sectional Door and Frame Painted to Match Adjacent Wall Surface
14. 12'x14' Steel Panel Sectional Door and Frame Painted to Match Adjacent Wall Surface
15. 3" Recess in Thickened Panel. Bent .090 Thick Alum. forms set into Recess.
16. External Down Spout and Overflow Scupper Painted to Match Adjacent Wall within Dock Area (All Other Locations to be Internally Drained)
17. Dashed Line Represents Roof Line Beyond
18. 6'-0" High, Rolling Wrought Iron Gate
19. Decorative Light Fixture to be Incorporated at Entry
20. Crossed Dashed Lines Represents Future Knock-Out Panels
21. 6" Deep Pilaster - Width Varies



Partial South Elevation



Partial South Elevation

CONCEPTUAL ELEVATIONS - BUILDING 1

0 16 32 48 64

Graphic Scale

Scale: 1/16" = 1'-0"

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MARCH BUSINESS CENTER

Moreno Valley, California

A 1.42

25 October 2012

March Business Center
A1.42 - Conceptual Elevations - Building 1
October 25, 2012

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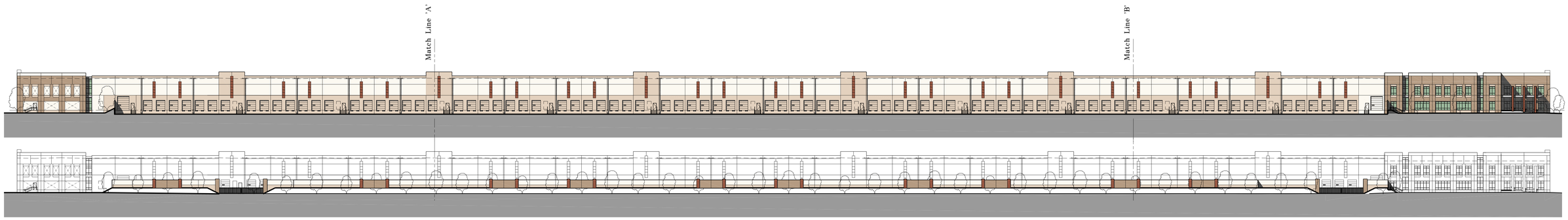
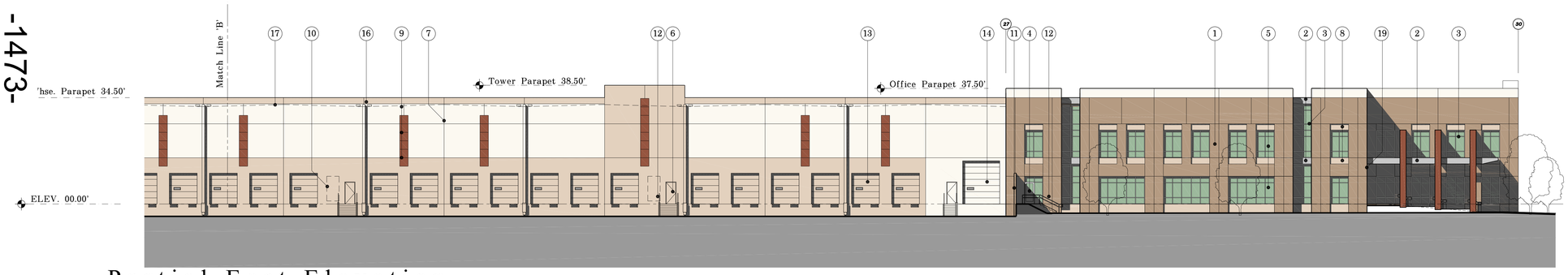
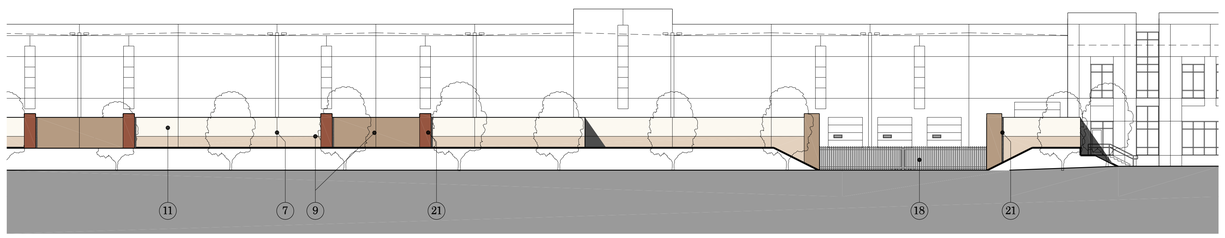


Overall East Elevation (Scale: 1" = 40'-0")

Partial East Elevation



Partial East Elevation



Typical Screen Wall Elevation

Elevation Notes

1. Concrete Tilt-up panels with joints and reveals as indicated. Painted. Typical
2. Canopy: Bent .090" Thick Aluminum Panel w/ Kawneer "Silver" Finish over Steel Frame - Typ.
3. Clear Anodized, Center Glazed, Aluminum Mullion System (6" System at 2-Story Glazing, 4" System at Punched Openings)
4. 7'-0" High Medium Stile Entry Doors - Typ.
5. Medium performance Reflective Green Glass - Typ.
6. 3'x7' Galvanized Steel Man Door and Frame Painted to Match Adjacent Wall Surface
7. Panel Joint - Typ.
8. 3/4" Recess - Typ.
9. 3/4" Reveal - Typ.
10. Potential Louvered Air Intake Vent - Painted to Match Adjacent Wall Surface - Exact Location T.B.D.
11. 14'-0" High Concrete Screen Wall - Painted (Street Side of Wall will Incorporate Landscape Berm to Reduce Visual Wall Height to 8'-0")
12. Metal Hand and Guardrails Painted to Match Adjacent Wall Surface - Typ.
13. 9'x10' Steel Panel Sectional Door and Frame Painted to Match Adjacent Wall Surface
14. 12'x14' Steel Panel Sectional Door and Frame Painted to Match Adjacent Wall Surface
15. 3" Recess in Thickened Panel. Bent .090 Thick Alum. forms set into Recess.
16. External Down Spout and Overflow Scupper Painted to Match Adjacent Wall within Dock Area (All Other Locations to be Internally Drained)
17. Dashed Line Represents Roof Line Beyond
18. 6'-0" High, Rolling Wrought Iron Gate
19. Decorative Light Fixture to be Incorporated at Entry
20. Crossed Dashed Lines Represents Future Knock-Out Panels
21. 6" Deep Pilaster - Width Varies

Paint Legend

- Paint 1 - Beige (Dunn Edwards, or Equal - DE6127, Finest Silk, LRV 74)
- Paint 2 - Light Brown (Dunn Edwards, or Equal - DEC747, Sahara, LRV 52)
- Paint 3 - Medium Brown (Dunn Edwards, or Equal - DE6096, Homestead, LRV 26)
- Paint 4 - Burnt Red (Dunn Edwards, or Equal - DE5188, Ruddy Oak, LRV 17)

CONCEPTUAL ELEVATIONS - BUILDING 1

0 16 32 48 64
Graphic Scale

Scale: 1/16" = 1'-0"

-1473-

WESTERN REALCO

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MARCH BUSINESS CENTER

Moreno Valley, California

A 1.41

25 October 2012

March Business Center
A1.41 - Conceptual Elevations - Building 1
October 25, 2012

BASTIEN AND ASSOCIATES, INC.
ARCHITECTURE AND PLANNING
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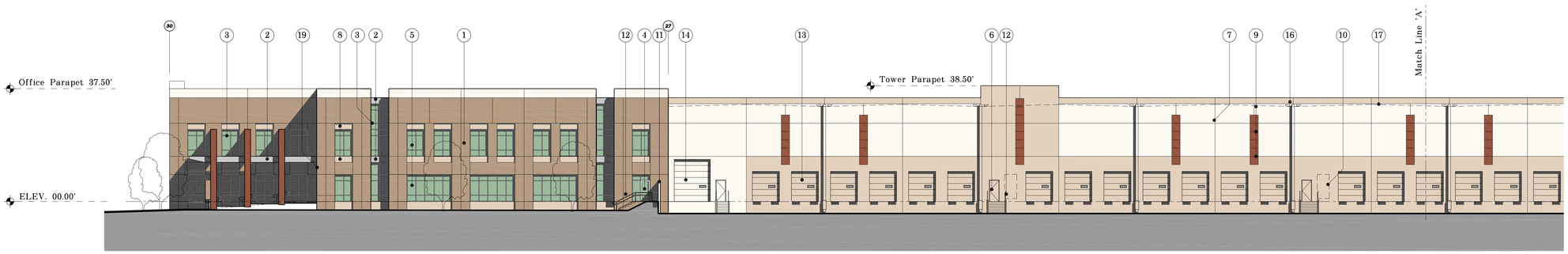
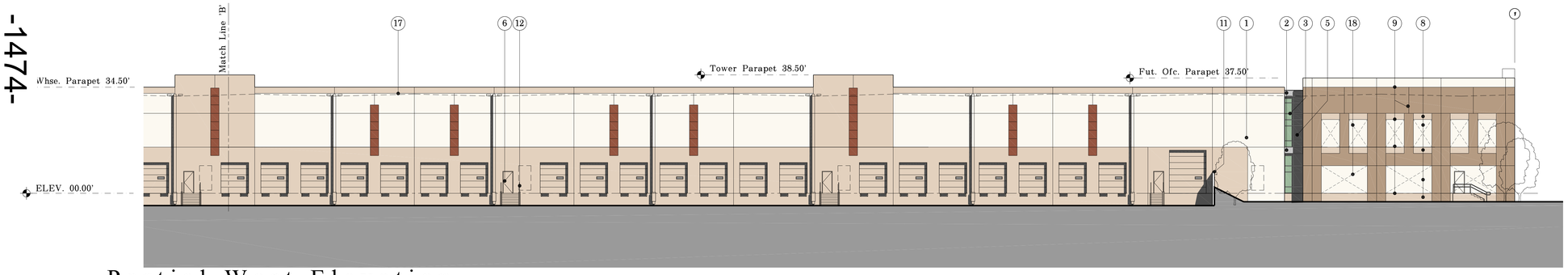
Phone:(714) 617-8600 Fax:(714) 617-8671
www.BastienArchitects.com

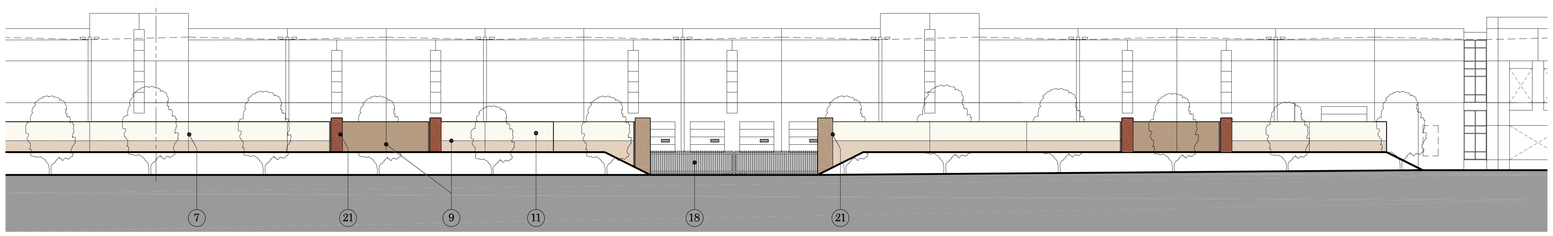
Overall West Elevation (Scale: 1" = 40'-0")



Partial West Elevation



Partial West Elevation



Typical Screen Wall Elevation

Elevation Notes

1. Concrete Tilt-up panels with joints and reveals as indicated. Painted. Typical
2. Canopy: Bent .090" Thick Aluminum Panel w/ Kawneer "Silver" Finish over Steel Frame - Typ.
3. Clear Anodized, Center Glazed, Aluminum Mullion System (6" System at 2-Story Glazing, 4" System at Punched Openings)
4. 7'-0" High Medium Stile Entry Doors - Typ.
5. Medium performance Reflective Green Glass - Typ.
6. 3'x7' Galvanized Steel Man Door and Frame Painted to Match Adjacent Wall Surface
7. Panel Joint - Typ.
8. 3/4" Recess - Typ.
9. 3/4" Reveal - Typ.
10. Potential Louvered Air Intake Vent - Painted to Match Adjacent Wall Surface - Exact Location T.B.D.
11. 14'-0" High Concrete Screen Wall - Painted (Street Side of Wall will Incorporate Landscape Berm to Reduce Visual Wall Height to 8'-0")
12. Metal Hand and Guardrails Painted to Match Adjacent Wall Surface - Typ.
13. 9'x10' Steel Panel Sectional Door and Frame Painted to Match Adjacent Wall Surface
14. 12'x14' Steel Panel Sectional Door and Frame Painted to Match Adjacent Wall Surface
15. 3" Recess in Thickened Panel. Bent .090 Thick Alum. forms set into Recess.
16. External Down Spout and Overflow Scupper Painted to Match Adjacent Wall within Dock Area (All Other Locations to be Internally Drained)
17. Dashed Line Represents Roof Line Beyond
18. 6'-0" High, Rolling Wrought Iron Gate
19. Decorative Light Fixture to be Incorporated at Entry
20. Crossed Dashed Lines Represents Future Knock-Out Panels
21. 6" Deep Pilaster - Width Varies

Paint Legend

- Paint 1 - Beige (Dunn Edwards, or Equal - DE6127, Finest Silk, LRV 74)
- Paint 2 - Light Brown (Dunn Edwards, or Equal - DEC747, Sahara, LRV 52)
- Paint 3 - Medium Brown (Dunn Edwards, or Equal - DE6096, Homestead, LRV 26)
- Paint 4 - Burnt Red (Dunn Edwards, or Equal - DE5188, Ruddy Oak, LRV 17)

CONCEPTUAL ELEVATIONS - BUILDING 1

0 16 32 48 64
Graphic Scale

Scale: 1/16" = 1'-0"

-1474-

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MARCH BUSINESS CENTER
Moreno Valley, California

A 1.43

25 October 2012

March Business Center
A1.43 - Conceptual Elevations - Building 1
October 25, 2012

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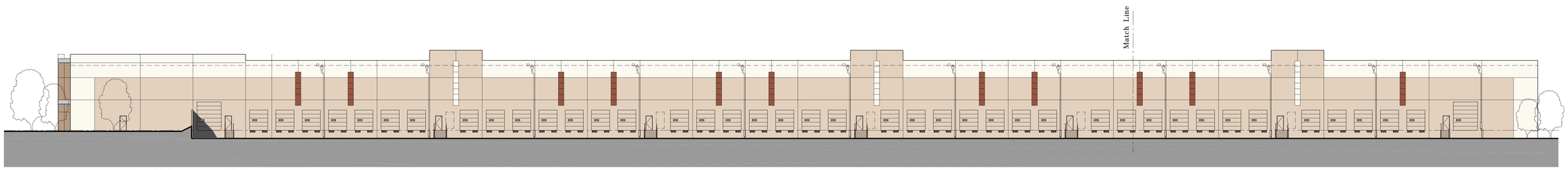
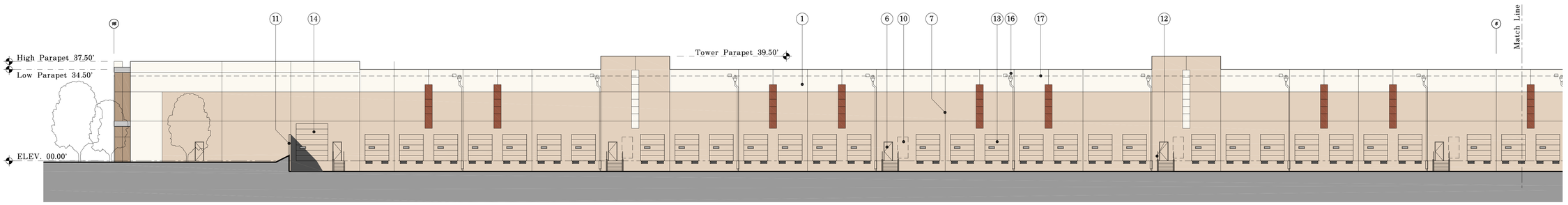
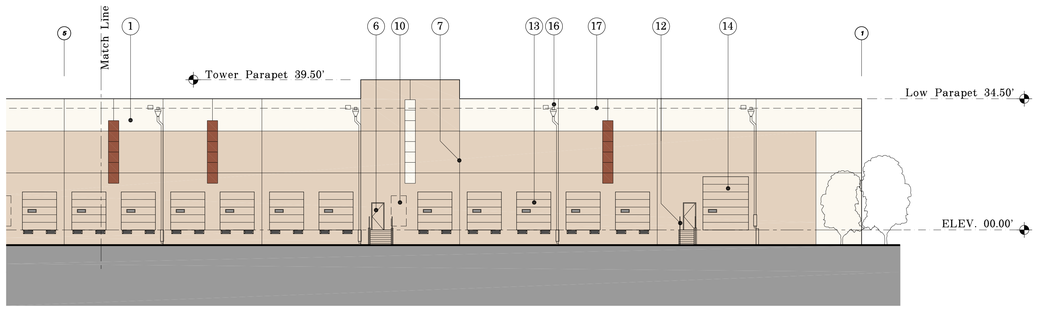


Overall West Elevation (Scale: 1" = 20'-0")



Partial West Elevation



Partial West Elevation

Paint Legend

Paint 1 - Beige (Dunn Edwards, or Equal - DE6127, Finest Silk, LRV 74)

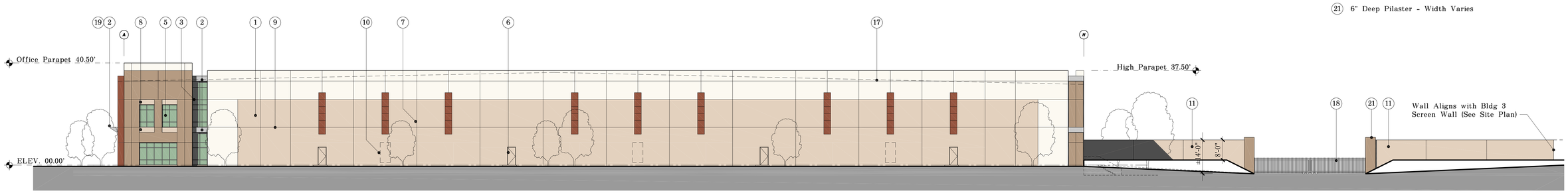
Paint 2 - Light Brown (Dunn Edwards, or Equal - DEC747, Sahara, LRV 52)

Paint 3 - Medium Brown (Dunn Edwards, or Equal - DE6096, Homestead, LRV 26)

Paint 4 - Burnt Red (Dunn Edwards, or Equal - DE5188, Ruddy Oak, LRV 17)

Elevation Notes

1. Concrete Tilt-up panels with joints and reveals as indicated. Painted. Typical
2. Canopy: Bent .090" Thick Aluminum Panel w/ "Silver" Kawneer Finish over Steel Frame - Typ.
3. Clear Anodized, Center Glazed, Aluminum Mullion System (6" System at 2-Story Glazing, 4" System at Punched Openings)
4. 7'-0" High Medium Stile Entry Doors - Typ.
5. Medium performance Reflective Green Glass - Typ.
6. 3'x7' Galvanized Steel Man Door and Frame Painted to Match Adjacent Wall Surface
7. Panel Joint - Typ.
8. 3/4" Recess - Typ.
9. 3/4" Reveal - Typ.
10. Potential Louvered Air Intake Vent - Painted to Match Adjacent Wall Surface - Exact Location T.B.D.
11. 14'-0" High Concrete Screen Wall - Painted (Street Side of Wall will Incorporate Landscape Berm to Reduce Visual Wall Height to 8'-0")
12. Metal Hand and Guardrails Painted to Match Adjacent Wall Surface - Typ.
13. 9'x10' Steel Panel Sectional Door and Frame Painted to Match Adjacent Wall Surface
14. 12'x14' Steel Panel Sectional Door and Frame Painted to Match Adjacent Wall Surface
15. Not Used
16. External Down Spout and Overflow Scupper Painted to Match Adjacent Wall within Dock Area (All Other Locations to be Internally Drained)
17. Dashed Line Represents Roof Line Beyond
18. 6'-0" High, Rolling Wrought Iron Gate
19. Decorative Light Fixture to be Incorporated at Entry
20. Not Used
21. 6" Deep Pilaster - Width Varies



North Elevation

CONCEPTUAL ELEVATIONS - BUILDING 2

0 16 32 48 64

Graphic Scale

Scale: 1/16" = 1'-0"

-1475-

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MARCH BUSINESS CENTER

Moreno Valley, California

A 2.42

25 October 2012

March Business Center
A2.42 - Conceptual Elevations - Building 2
October 25, 2012

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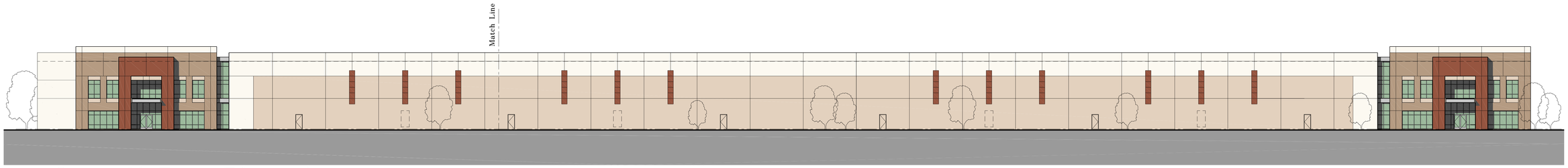
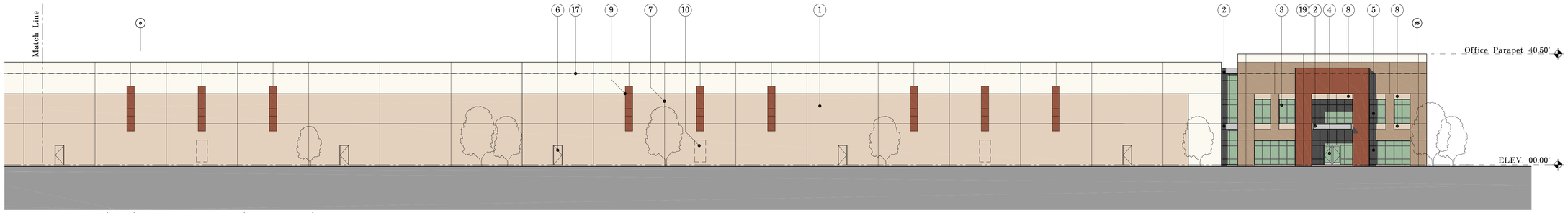


Overall East Elevation (Scale: 1" = 20'-0")



Partial East Elevation

Partial East Elevation

Paint Legend

Paint 1 - Beige (Dunn Edwards, or Equal - DE6127, Finest Silk, LRV 74)

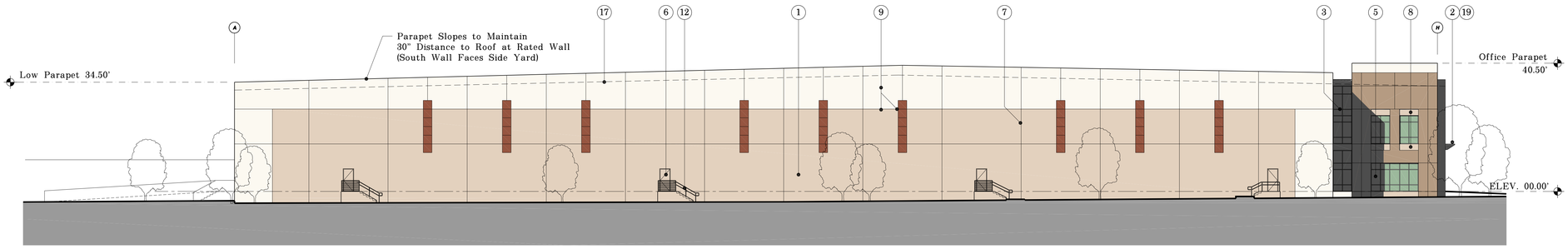
Paint 2 - Light Brown (Dunn Edwards, or Equal - DEC747, Sahara, LRV 52)

Paint 3 - Medium Brown (Dunn Edwards, or Equal - DE6096, Homestead, LRV 26)

Paint 4 - Burnt Red (Dunn Edwards, or Equal - DE5188, Ruddy Oak, LRV 17)

Elevation Notes

1. Concrete Tilt-up panels with joints and reveals as indicated. Painted. Typical
2. Canopy: Bent .090" Thick Aluminum Panel w/ "Silver" Kawneer Finish over Steel Frame - Typ.
3. Clear Anodized, Center Glazed, Aluminum Mullion System (6" System at 2-Story Glazing, 4" System at Punched Openings)
4. 7'-0" High Medium Stile Entry Doors - Typ.
5. Medium performance Reflective Green Glass - Typ.
6. 3'x7' Galvanized Steel Man Door and Frame Painted to Match Adjacent Wall Surface
7. Panel Joint - Typ.
8. 3/4" Recess - Typ.
9. 3/4" Reveal - Typ.
10. Potential Louvered Air Intake Vent - Painted to Match Adjacent Wall Surface - Exact Location T.B.D.
11. 14'-0" High Concrete Screen Wall - Painted (Street Side of Wall will Incorporate Landscape Berm to Reduce Visual Wall Height to 8'-0")
12. Metal Hand and Guardrails Painted to Match Adjacent Wall Surface - Typ.
13. 9'x10' Steel Panel Sectional Door and Frame Painted to Match Adjacent Wall Surface
14. 12'x14' Steel Panel Sectional Door and Frame Painted to Match Adjacent Wall Surface
15. Not Used
16. External Down Spout and Overflow Scupper Painted to Match Adjacent Wall within Dock Area (All Other Locations to be Internally Drained)
17. Dashed Line Represents Roof Line Beyond
18. 6'-0" High, Rolling Wrought Iron Gate
19. Decorative Light Fixture to be Incorporated at Entry
20. Not Used
21. 6" Deep Pilaster - Width Varies



South Elevation

CONCEPTUAL ELEVATIONS - BUILDING 2

0 16 32 48 64

Graphic Scale

Scale: 1/16" = 1'-0"

-1476-

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Moreno Valley, California

A 2.41

25 October 2012

March Business Center
A2.41 - Conceptual Elevations - Building 2
October 25, 2012

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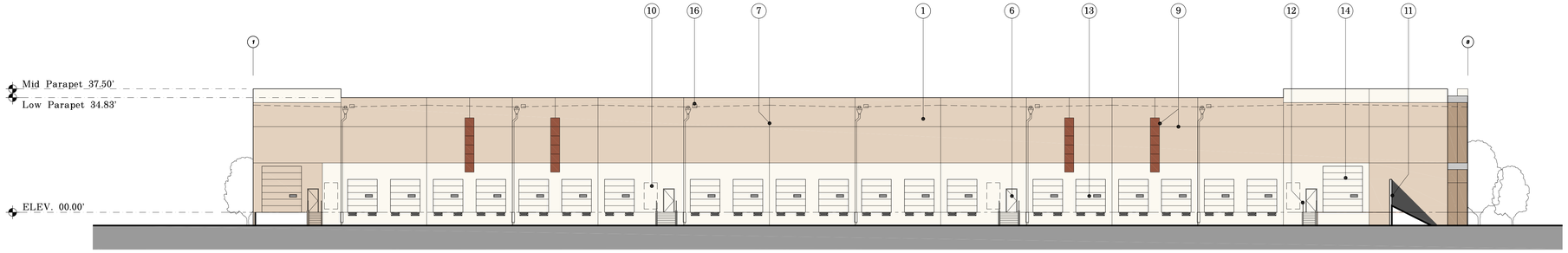
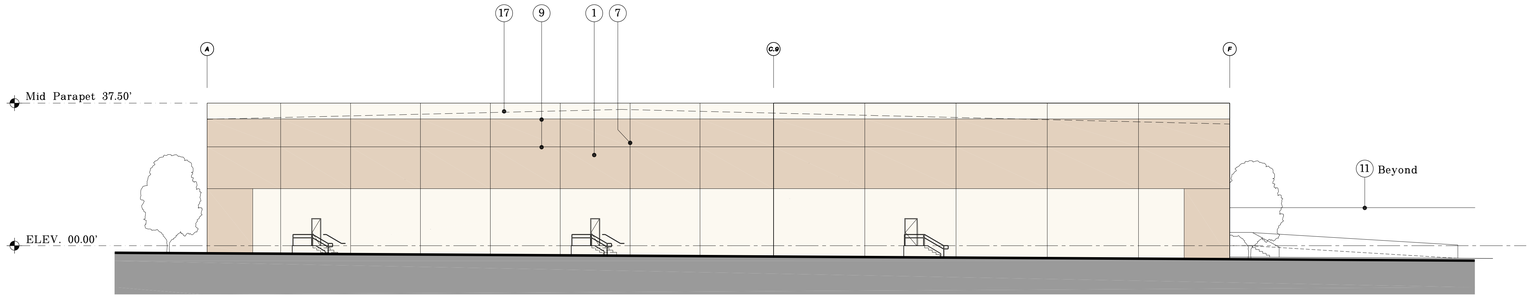
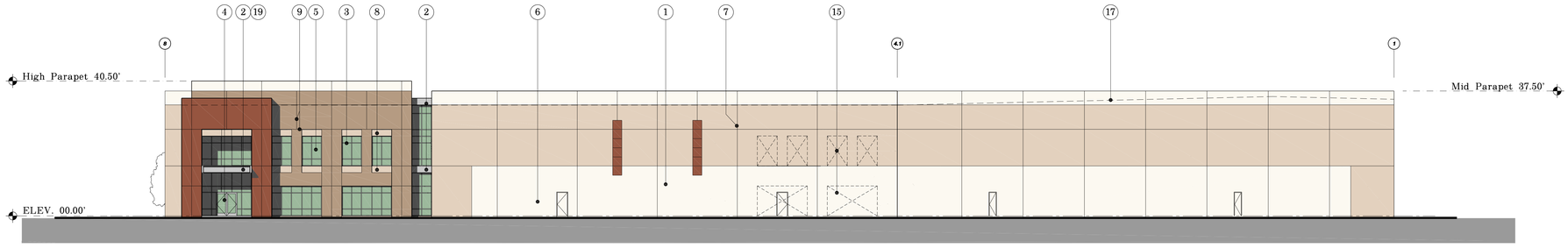


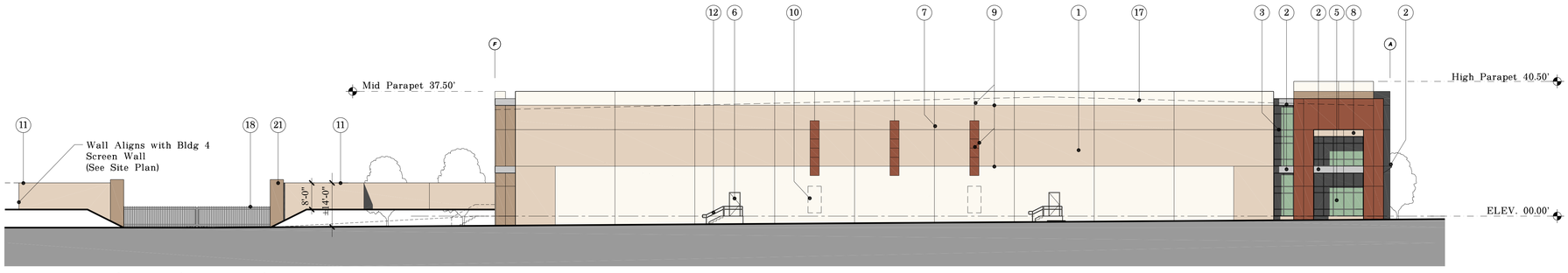
East Elevation



South Elevation



West Elevation



North Elevation

Elevation Notes

1. Concrete Tilt-up panels with joints and reveals as indicated. Painted. Typical
2. Canopy: Bent .090" Thick Aluminum Panel w/ Kawneer "Silver" Finish over Steel Frame - Typ.
3. Clear Anodized, Center Glazed, Aluminum Mullion System (6" System at 2-Story Glazing, 4" System at Punched Openings)
4. 7'-0" High Medium Stile Entry Doors - Typ.
5. Medium performance Reflective Green Glass - Typ.
6. 3'x7' Galvanized Steel Man Door and Frame Painted to Match Adjacent Wall Surface
7. Panel Joint - Typ.
8. 3/4" Recess - Typ.
9. 3/4" Reveal - Typ.
10. Potential Louvered Air Intake Vent - Painted to Match Adjacent Wall Surface - Exact Location T.B.D.
11. 14'-0" High Concrete Screen Wall - Painted (Street Side of Wall will Incorporate Landscape Berm to Reduce Visual Wall Height to 8'-0")
12. Metal Hand and Guardrails Painted to Match Adjacent Wall Surface - Typ.
13. 9'x10' Steel Panel Sectional Door and Frame Painted to Match Adjacent Wall Surface
14. 12'x14' Steel Panel Sectional Door and Frame Painted to Match Adjacent Wall Surface
15. Knockout Panel for Potential Future Office Use
16. External Down Spout and Overflow Scupper Painted to Match Adjacent Wall within Dock Area (All Other Locations to be Internally Drained)
17. Dashed Line Represents Roof Line Beyond
18. 6'-0" High, Rolling Wrought Iron Gate
19. Decorative Light Fixture to be Incorporated at Entry
20. Not Used
21. 6" Deep Pilaster - Width Varies

Paint Legend

- Paint 1 - Beige (Dunn Edwards, or Equal - DE6127, Finest Silk, LRV 74)
- Paint 2 - Light Brown (Dunn Edwards, or Equal - DEC747, Sahara, LRV 52)
- Paint 3 - Medium Brown (Dunn Edwards, or Equal - DE6096, Homestead, LRV 26)
- Paint 4 - Burnt Red (Dunn Edwards, or Equal - DE5188, Ruddy Oak, LRV 17)

CONCEPTUAL ELEVATIONS - BUILDING 3

0 16 32 48 64
Graphic Scale

Scale: 1/16" = 1'-0"

-1477-

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MARCH BUSINESS CENTER

Moreno Valley, California

A 3.3

25 October 2012

March Business Center
A3.3 - Conceptual Elevations - Building 3
October 25, 2012

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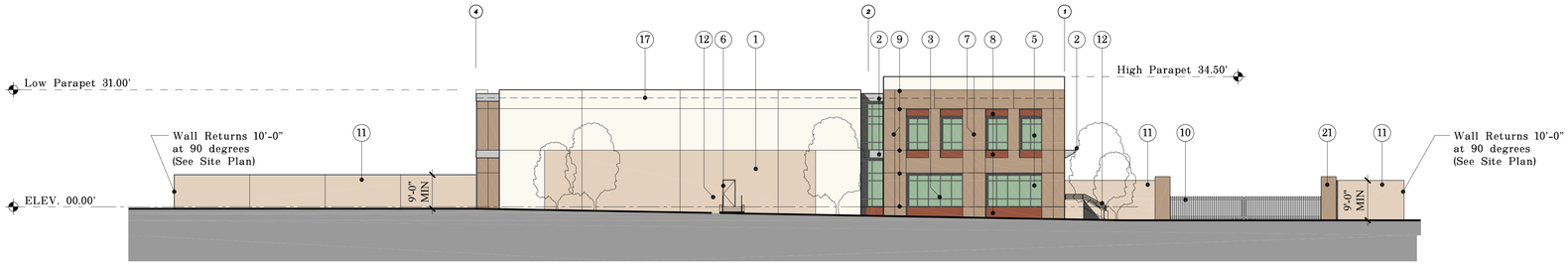
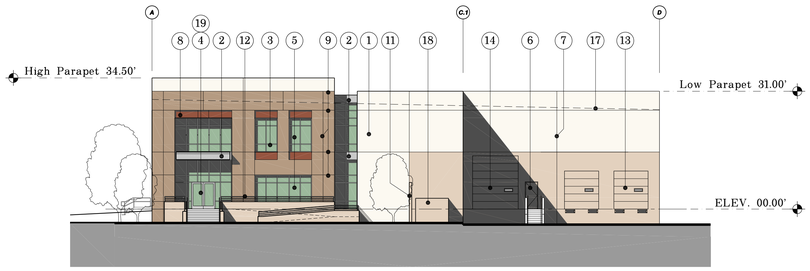
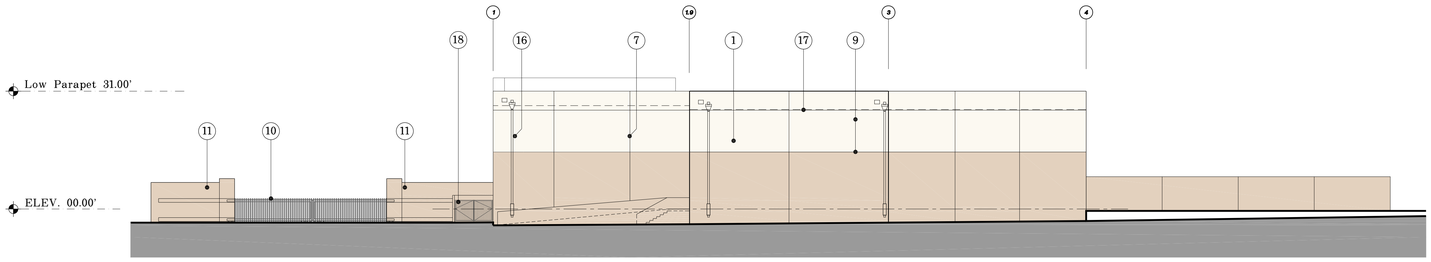


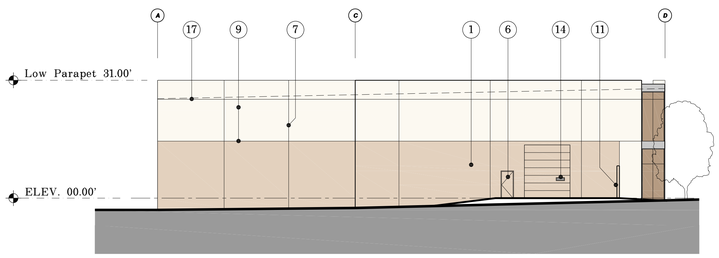
West Elevation



South Elevation



East Elevation



North Elevation

Elevation Notes

1. Concrete Tilt-up panels with joints and reveals as indicated. Painted. Typical
2. Canopy: Bent .090" Thick Aluminum Panel w/ Kawneer "Silver" Finish over Steel Frame - Typ.
3. Clear Anodized, Center Glazed, Aluminum Mullion System (6" System at 2-Story Glazing, 4" System at Punched Openings)
4. 7'-0" High Medium Stile Entry Doors - Typ.
5. Medium performance Reflective Green Glass - Typ.
6. 3'x7' Galvanized Steel Man Door and Frame Painted to Match Adjacent Wall Surface
7. Panel Joint - Typ.
8. 3/4" Recess - Typ.
9. 3/4" Reveal - Typ.
10. 6'-0" High, Rolling Wrought Iron Gate
11. 9' High (Min.) Concrete Screen Wall - Painted
12. Metal Hand and Guardrails Painted to Match Adjacent Wall Surface - Typ.
13. 9'x10' Steel Panel Sectional Door and Frame Painted to Match Adjacent Wall Surface
14. 12'x14' Steel Panel Sectional Door and Frame Painted to Match Adjacent Wall Surface
15. Not Used
16. External Down Spout and Overflow Scupper Painted to Match Adjacent Wall at East Side (All Other Locations to be Internally Drained)
17. Dashed Line Represents Roof Line Beyond
18. 2-Bin, Concrete Trash Enclosure w/ Roof and 6' High Walls Painted to Match Adjacent Wall Surface - Typ. Refer to Site Plan for Location
19. Decorative Light Fixture to be Incorporated at Entry
20. Not Used
21. 6" Deep Pilaster - Width Varies

Paint Legend

- Paint 1 - Beige (Dunn Edwards, or Equal - DE6127, Finest Silk, LRV 74)
- Paint 2 - Light Brown (Dunn Edwards, or Equal - DEC747, Sahara, LRV 52)
- Paint 3 - Medium Brown (Dunn Edwards, or Equal - DE6096, Homestead, LRV 26)
- Paint 4 - Burnt Red (Dunn Edwards, or Equal - DE5188, Ruddy Oak, LRV 17)

CONCEPTUAL ELEVATIONS - BUILDING 4

0 16 32 48 64

Graphic Scale

Scale: 1/16" = 1'-0"

-1479-

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MARCH BUSINESS CENTER

Moreno Valley, California

A 4.2

25 October 2012

March Business Center
A4.2 - Conceptual Elevations - Building 4
October 25, 2012

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PLANNING COMMISSION STAFF REPORT

Case:	P12-102 Amended Master Plot Plan P12-103 Amended Plot Plan
Date:	December 13, 2012
Applicant/Owner:	Kaiser Permanente
Representative:	Skyler Dennision
Location:	North side of Iris Avenue, west of Oliver Street and the existing Kaiser Permanente Hospital (APN: 486-310-023, 024)
Proposal:	An Amended Master Plot Plan (P12-102) to revise the current Master Site Plan and an Amended Plot Plan (P12-103) to accommodate a 8,229 first floor expansion of the emergency room area of the existing hospital building. The application includes a revision to the interior of the existing building. The project site is in the Community Commercial (CC) zone within the Medical Office Overlay District (MOU).
Recommendation:	Approval

SUMMARY

The applicant, Kaiser Permanente has submitted an Amended Plot Plan for a 8,229 square foot addition to the existing hospital to be constructed south of the existing emergency room entrance and an Amended Master Plot Plan to incorporate the new addition into the Medical Center complex.

Project

Amended Master Plot Plan and Amended Plot Plan

The Amended Plot Plan will allow the expansion of the existing hospital. The expansion will be 8,229 square feet on the south side of the building at the emergency room entrance. The expansion will include an interior remodel of the existing emergency room. A MRI trailer will be located to the west of the emergency room entrance and will be screened with additional landscape. The MRI facilities trailer provides diagnostic services in addition to those provided in the hospital and needs to be located adjacent to the emergency room for easy access. In times of emergency, or if another facility is experiencing a peak demand for imaging, the MRI unit may be moved temporarily.

The Master Site plan is required to update the Hospital campus to include the expansion and the MRI trailer

The project is located within the Community Commercial (CC) zone within the Medical Use Overlay District (MUO). The purpose of the MUO District is to implement the General Plan goal of creating a medical corridor by limiting land uses to those that support and or compatible with the city's two existing hospitals. The project as designed and conditioned meets the objectives and requirements of CC zone and the MUO District.

Site/ Surrounding Area

The project site is located on the north side of Iris Avenue, west of Oliver on to the existing Kaiser Hospital site. Properties to the north and west are zoned LM (Low/Medium Residential) within the AquaBella Specific Plan 218 (SP218). To the south across Iris Avenue are existing single-family residences within the Moreno Valley Ranch Specific Plan 193 (SP193). Properties to the east zoned Neighborhood Commercial and Office are all within the MUO District.

Access/Parking

The project will have access from the existing driveways along Iris Avenue with a minor modification to the existing parking lot to accommodate the building expansion. Due to the size of the site, the removal of the parking stalls should not affect the project as the resulting number of parking stalls exceed the parking requirement for the Hospital.

Design/Landscaping

The design of the proposed modification is in conformance with the Office Commercial design standards and is consistent and complementary with the existing hospital.

The building is a contemporary design using glass, and metal louvered sunshades to accent the front and side of the building. The colors include earth tones which will match existing hospital's color palette.

Several trees will be removed to accommodate the expansion. The project will be required to replace and provide additional trees and landscaping as required and conditioned.

REVIEW PROCESS

The applicant submitted the project on August 1, 2012. The applicant addressed the comments and resubmitted the plans for review and approval. All relevant issues have been adequately corrected to the satisfaction of all parties.

ENVIRONMENTAL

The project is exempt from the provisions of the California Environmental Quality Act (CEQA), as a minor alteration to an existing facility, Class 1 Categorical Exemption, CEQA Guidelines, Section 15301 (Existing Facilities).

NOTIFICATION

Public notice was sent to all property owners of record within 300' of the project. The public hearing notice for this project was also posted on the project site and published in the local newspaper.

REVIEW AGENCY COMMENTS

The project reviewed by Planning, Land Development, Building and the Fire Divisions and due to the nature of the project was not sent to any outside agencies.

STAFF RECOMMENDATION

That the Planning Commission **APPROVE** Resolution No. 2012-27 and thereby:

1. **RECOGNIZE** that P12-102 (Amended Master Plot Plan) and P12-103 (Amended Plot Plan) qualifies as an exemption in accordance with CEQA Guidelines, Section 15301 (Existing Facilities); and,

2. **APPROVE** P12-102 (Amended Master Plot Plan) and P12-103 (Amended Plot Plan) subject to the attached conditions of approval included as Exhibit A.

Prepared by:

Julia Descoteaux
Associate Planner

Approved by:

John C. Terell, AICP
Planning Official

ATTACHMENTS:

1. Public Hearing Notice
2. Planning Commission Resolution No. 2012-27 with Conditions of Approval
3. Zoning Map
4. Aerial Map
5. Site Plan
6. Elevations
7. Preliminary Grading

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Notice of PUBLIC HEARING

This may affect your property. Please read.

Notice is hereby given that a Public Hearing will be held by the Planning Commission of the City of Moreno Valley on the following item(s):

CASE: **P12-102 Amended Master Plot Plan**
P12-103 Amended Plot Plan
P12-130 Amended Plot Plan

OWNER/APPLICANT: **Kaiser Foundation Hospitals**

REPRESENTATIVE: **Skyler Dennision**

LOCATION: **27300 Iris Avenue**
(APN: 486-310-023, 024)

PROPOSAL: An Amended Plot Plan (P12-130) to modify Conditions of Approval for PA11-0009 to eliminate the perimeter wall from the Medical Office Building project, An Amended Master Plot Plan (P12-102) to revise the current Master Site Plan and an Amended Plot Plan (P12-103) to accommodate a 8,229 first floor expansion of the emergency room area of the existing hospital building. The application includes a revision to the interior of the existing building.The project site is in the Office Commercial zone (OC) within the Medical Office Overlay District (MOU).

ENVIRONMENTAL DETERMINATION: The project is exempt from the provisions of the California Environmental Quality Act (CEQA), as a minor alteration to an existing facility, Class 1 Categorical Exemption, CEQA Guidelines, Section 15301 (Existing Facilities).

COUNCIL DISTRICT: 3

STAFF RECOMMENDATION: Approval

Any person interested in any listed proposal can contact the Community & Economic Development Department, Planning Division, at 14177 Frederick St., Moreno Valley, California, during normal business hours (7:30 a.m. to 5:30 p.m., Monday through Thursday), or may telephone (951) 413-3206 for further information. The associated documents will be available for public inspection at the above address.

In the case of Public Hearing items, any person may also appear and be heard in support of or opposition to the project or recommendation of adoption of the Environmental Determination at the time of the Hearing.

The Planning Commission, at the Hearing or during deliberations, could approve changes or alternatives to the proposal.

If you challenge any of these items in court, you may be limited to raising only those items you or someone else raised at the Public Hearing described in this notice, or in written correspondence delivered to the Planning Commission at, or prior to, the Public Hearing.

LOCATION N ↑

PLANNING COMMISSION HEARING

City Council Chamber, City Hall
14177 Frederick Street
Moreno Valley, Calif. 92553

DATE AND TIME: December 13, 2012 at 7 PM

CONTACT PLANNER: Julia Descoteaux

PHONE: (951) 413-3209

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PLANNING COMMISSION RESOLUTION NO. 2012-27

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY APPROVING AMENDED MASTER PLOT PLAN (P12-102) TO REVISE THE CURRENT MASTER SITE PLAN AND AN AMENDED PLOT PLAN (P12-103) TO ACCOMMODATE A 8,229 FIRST FLOOR EXPANSION OF THE EMERGENCY ROOM AREA OF THE EXISTING HOSPITAL BUILDING LOCATED AT 27300 IRIS AVENUE ON THE NORTH SIDE OF IRIS AVENUE, WEST OF OLIVER STREET ON PARCEL 486-310-023.

WHEREAS, Kaiser Permanente has filed an application for the approval of P12-102 (Amended Master Plot Plan) and P12-103 (Amended Plot Plan) as described in the title of this Resolution.

WHEREAS, on December 13, 2012, the Planning Commission of the City of Moreno Valley held a meeting to consider the application.

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred.

WHEREAS, there is hereby imposed on the subject development project certain fees, dedications, reservations and other exactions pursuant to state law and City ordinances;

WHEREAS, pursuant to Government Code Section 66020(d)(1), **NOTICE IS HEREBY GIVEN** that this project is subject to certain fees, dedications, reservations and other exactions as provided herein.

NOW, THEREFORE, BE IT RESOLVED, it is hereby found, determined and resolved by the Planning Commission of the City of Moreno Valley as follows:

A. This Planning Commission hereby specifically finds that all of the facts set forth above in this Resolution are true and correct.

B. Based upon substantial evidence presented to this Planning Commission during the above-referenced meeting on December 13, 2012, including written and oral staff reports, and the record from the public hearing, this Planning Commission hereby specifically finds as follows:

1. **Conformance with General Plan Policies –** The proposed use is consistent with the General Plan, and its goals, objectives, policies and programs.

ATTACHMENT 2

FACT: The amendments are consistent with the General Plan, its goals, objectives, policies and programs. The proposed changes include an 8,229 square foot emergency room addition to the existing building with the master site plan being updated to reflect the revised site, parking lot modifications to accommodate the expansion and the elimination of the block wall along the property line adjacent to the new medical office building. The proposed facility is located within the Medical Use Overlay District (MUO) which was designed to create a medical corridor. The MUO corridor limits land uses to those that are supportive of and compatible with the City's two existing hospitals. The proposed projects are supportive to the existing Kaiser Hospital.

2. **Conformance with Zoning Regulations –** The proposed use complies with all applicable zoning and other regulations.

FACT: The proposed project is zoned Community Commercial (CC). The proposed medical office is consistent with the goals and objectives of the Community Commercial zoning.

3. **Health, Safety and Welfare –** The proposed use will not be detrimental to the public health, safety or welfare or materially injurious to properties or improvements in the vicinity.

FACT: The proposed building and site plan modifications would not be detrimental to the public health, safety or welfare or materially injurious to properties or improvements in the surrounding area. Planning staff has reviewed this project and determined that this item will not have a significant effect on the environment and is therefore exempt from the provisions of the California Environmental Quality Act (CEQA), as a minor alteration to an existing facility, Class 1 Categorical Exemption, CEQA Guidelines, Section 15301 (Existing Facilities)..

4. **Location, Design and Operation –** The location, design and operation of the proposed project will be compatible with existing and planned land uses in the vicinity.

FACT: The design of the proposed building modification and Master Site plan is in conformance with the Community Commercial zoning and the Medical Use Overlay District. As designed, the emergency room expansion will include an 8,229 square foot addition to the existing building with the master site plan being updated to reflect the revised site, parking lot revision to accommodate the building addition and elimination of the block wall

along the west and north property line adjacent to the new medical office building. The proposed use would be in conformance with the existing surrounding development and is consistent with all applicable goals, objectives, policies and programs of the General Plan and the City's Municipal Code.

C. FEES, DEDICATIONS, RESERVATIONS, AND OTHER EXACTIONS

1. FEES

Impact, mitigation and other fees are due and payable under currently applicable ordinances and resolutions. These fees may include but are not limited to: Development Impact Fee, Transportation Uniform Mitigation Fee (TUMF), Multi-species Habitat Conservation Plan (MSHCP) Mitigation Fee, Stephens Kangaroo Habitat Conservation fee, Underground Utilities in lieu Fee, Area Drainage Plan fee, Bridge and Thoroughfare Mitigation fee (Future) and Traffic Signal Mitigation fee. The final amount of fees payable is dependent upon information provided by the applicant and will be determined at the time the fees become due and payable.

Unless otherwise provided for by this resolution, all impact fees shall be calculated and collected at the time and in the manner provided in Chapter 3.32 of the City of Moreno Valley Municipal Code or as so provided in the applicable ordinances and resolutions. The City expressly reserves the right to amend the fees and the fee calculations consistent with applicable law.

2. DEDICATIONS, RESERVATIONS, AND OTHER EXACTIONS

The adopted Conditions of Approval for P12-130, P12-102 and P12-103, incorporated herein by reference, may include dedications, reservations, and exactions pursuant to Government Code Section 66020 (d) (1).

3. CITY RIGHT TO MODIFY/ADJUST; PROTEST LIMITATIONS

The City expressly reserves the right to establish, modify or adjust any fee, dedication, reservation or other exaction to the extent permitted and as authorized by law.

Pursuant to Government Code Section 66020(d) (1), NOTICE IS FURTHER GIVEN that the 90 day period to protest the imposition of any impact fee, dedication, reservation, or other exaction described in this resolution begins on the effective date of this resolution and any such

protest must be in a manner that complies with Section 66020(a) and failure to timely follow this procedure will bar any subsequent legal action to attack, review, set aside, void or annul imposition.

The right to protest the fees, dedications, reservations, or other exactions does not apply to planning, zoning, grading, or other similar application processing fees or service fees in connection with this project and it does not apply to any fees, dedication, reservations, or other exactions of which a notice has been given similar to this, nor does it revive challenges to any fees for which the Statute of Limitations has previously expired.

BE IT FURTHER RESOLVED that the Planning Commission **HEREBY APPROVES** Resolution No. 2012-27 approving P12-102 (Amended Master Plot Plan) revising the master site plan and P12-103 (Amended Plot Plan) for the emergency room expansion at the existing hospital located at 27300 Iris Avenue, parcel 486-310-023 subject to the attached conditions of approval included as Exhibit A.

APPROVED this 13th day of December, 2012.

_____
Meli Van Natta
Chair, Planning Commission

ATTEST:

_____
John C. Terell, Planning Official
Secretary to the Planning Commission

APPROVED AS TO FORM:

_____
City Attorney

Attached: Conditions of Approval

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
AMENDED MASTER PLOT PLAN P12-102
AMENDED PLOT PLAN P12-103
AMENDED PLOT PLAN P12-130
APN: 486-310-023, 024

APPROVAL DATE: **December 13, 2012**
EXPIRATION DATE: **December 13, 2012**

_X_ Planning (P), including School District (S), Post Office (PO), Building (B)
_X_ Fire Prevention Bureau (F)
_X_ Public Works, Land Development (LD)

Note: All Special conditions are in bold lettering. All other conditions are standard to all or most development projects.

COMMUNITY & ECONOMIC DEVELOPMENT DEPARTMENT

Planning Division

For questions regarding any Planning condition of approval, please contact the Planning Division at (951) 413-3206.

GENERAL CONDITIONS

P1. This approval shall expire three years after the approval date of this project unless used or extended as provided for by the City of Moreno Valley Municipal Code; otherwise it shall become null and void and of no effect whatsoever. Use means the beginning of substantial construction contemplated by this approval within the three-year period, which is thereafter pursued to completion, or the beginning of substantial utilization contemplated by this approval. (MC 9.02.230)

P2. The site shall be developed in accordance with the approved plans on file in the Community & Economic Development Department - Planning Division, the Municipal Code regulations, General Plan, and the conditions contained herein. Prior to any use of the project site or business activity being commenced thereon, all Conditions of Approval shall be completed to the satisfaction of the Planning Official. (MC 9.14.020)

EXHIBIT A

Timing Mechanisms for Conditions (see abbreviation at beginning of affected condition):

R - Map Recordation	GP - Grading Permits	CO - Certificate of Occupancy or building final
WP - Water Improvement Plans	BP - Building Permits	P - Any permit

Governing Document (see abbreviation at the end of the affected condition):

GP - General Plan	MC - Municipal Code	CEQA - California Environmental Quality Act
Ord - Ordinance	DG - Design Guidelines	Ldscp - Landscape Development Guidelines and Specs
Res - Resolution	UFC - Uniform Fire Code	UBC - Uniform Building Code
	SBM - Subdivision M	

P3. The developer, or the developer's successor-in-interest, shall be responsible for maintaining any undeveloped portion of the site in a manner that provides for the control of weeds, erosion and dust. (MC 9.02.030)

P4. All landscaped areas shall be maintained in a healthy and thriving condition, free from weeds, trash and debris. (MC 9.02.030)

P5. Any signs indicated on the submitted plans are not included with this approval. Any signs**, whether permanent (e.g. wall, monument) or temporary (e.g. banner, flag),** proposed for this development shall be designed in conformance with the sign provisions of the Development Code or approved sign program, if applicable, and shall require separate application and approval by the Planning Division. **No signs are permitted in the public right of way.** (MC 9.12)

P6. (GP) All site plans, grading plans, landscape and irrigation plans, fence/wall plans, lighting plans and street improvement plans shall be coordinated for consistency with this approval.

Special Conditions

P7. **The site has been approved for an Amended Plot Plan to add 8,229 square feet to the existing hospital building expanding the emergency room area, modifying the exterior of the building to complement the existing building per the approved elevation plans and an Amended Master Plot Plan revising the existing site plan to accommodate the emergency room expansion. A change or modification shall require separate approval.**

P8. **The proposed MRI trailer will be placed west of the emergency room expansion to include additional landscaping around the trailer for screening. Landscape will be included on the landscape plan submittal.**

Prior to Issuance of Grading Permits

P9. (GP) If potential historic, archaeological, or paleontological resources are uncovered during excavation or construction activities at the project site, work in the affected area will cease immediately and a qualified person (meeting the Secretary of the Interior's standards (36CFR61)) shall be consulted by the applicant to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, prehistoric, or paleontological resource. Determinations and recommendations by the consultant shall be implemented as

deemed appropriate by the Community & Economic Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all affected Native American Tribes before any further work commences in the affected area.

If human remains are discovered**, no further disturbance shall occur until** the County Coroner **has made necessary findings as to origin**. If **the County Coroner** determine**s** that the remains are potentially Native American, the California Native American Heritage Commission **shall be contacted within a reasonable timeframe to identify the "most likely descendant." The "most likely descendant" shall then make recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98).** (GP Objective 23.3, CEQA).

P10. **(GP) Prior to approval of any grading permit, the developer shall submit for review and approval of a tree plan to the Planning Division. The plan shall identify all mature trees (4 inch trunk diameter or larger) on the subject property subject to removal. Using the grading plan as a base, the plan shall indicate trees to be relocated, retained, and removed. Replacement trees shall be shown on the plan, be a minimum size of 24 inch box, and meet a ratio of three replacement trees for each mature tree removed or as approved by the Planning Official. (GP Objective 4.4, 4.5, DG)**

PRIOR TO BUILDING PERMITS

P11. (BP) Prior to issuance of building permits, screening details shall be addressed on plans for roof top equipment and trash enclosures submitted for Planning Division review and approval. All equipment shall be completely screened so as not to be visible from public view, and the screening shall be an integral part of the building. For trash enclosures, landscaping shall be included on at least three sides. The trash enclosure, including any roofing, shall be compatible with the architecture for the building(s). (GP Objective 43.6, DG)

P12. **(BP) Prior to issuance of any building permits, final landscaping and irrigation plans shall be submitted for review and approved by the Planning Division. After the third plan check review for landscape plans, an additional plan check fee shall apply. The plans shall be prepared in accordance with the City's Landscape Standards and shall include:**

A. Drought tolerant landscape shall be used. Sod shall be limited to

gathering areas.

B. The addition of 7 trees will be required in addition to any trees being removed/replaced see COA P10.

C. All site perimeter and parking lot landscape and irrigation shall be installed prior to the release of certificate of any occupancy permits for the site or pad in question.

PRIOR TO CERTIFICATE OF OCCUPANCY

P13. (CO) Prior to issuance of Certificates of Occupancy or building final, the required landscaping and irrigation shall be installed. (DC 9.03.040)

P14. **(BP/CO) Prior to issuance of Certificate of Occupancy or building final, installed landscaping and irrigation shall be inspected by the Planning Division. All on-site and common area landscaping shall be installed in accordance with the City's Landscape Standards and the approved project landscape plans and all site clean-up shall be completed. All site perimeter and parking lot landscape and irrigation shall be installed prior to the release of certificate of any occupancy permits for the site or pad in question.**

Building and Safety Division

B1. The above project shall comply with the current California Codes (CBC, CEC, CMC and the CPC) as well as city ordinances. All new projects shall provide a soils report as well. Plans shall be submitted to the Building and Safety Division as a separate submittal. The 2010 edition of the California Codes became effective for all permits issued after January 1, 2011.

COMMERCIAL, INDUSTRIAL, MULTI-FAMILY PROJECTS INCLUDING CONDOMINIUMS, TOWNHOMES, DUPLEXES AND TRIPLEX BUILDINGS REQUIRE THE FOLLOWING.

B2. Prior to final inspection, all plans will be placed on a CD Rom for reference and verification. Plans will include “as built” plans, revisions and changes. The CD will also include Title 24 energy calculations, structural calculations and all other pertinent information. It will be the responsibility of the developer and or the building or property owner(s) to bear all costs required for this process. The CD will be presented to the Building and Safety Division for review prior to final inspection and building occupancy. The CD will become the property of the Moreno Valley Building and Safety Division at that time. In addition, a site plan showing the path of travel from public right of way and building to building access with elevations will be

required.

B3. (BP) Prior to the issuance of a building permit, the applicant shall submit a properly completed "Waste Management Plan" (WMP), as required, to the Compliance Official (Building Official) as a portion of the building or demolition permit process.

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
Case No: P12-102 P12-103
APN: 486-310-023
DATE: 12/3/12

FIRE PREVENTION BUREAU

1. The following Standard Conditions shall apply.

With respect to the conditions of approval, the following fire protection measures shall be provided in accordance with Moreno Valley City Ordinances and/or recognized fire protection standards:

F1. Final fire and life safety conditions will be addressed when the Fire Prevention Bureau reviews building plans. These conditions will be based on occupancy, use, California Building Code (CBC), California Fire Code (CFC), and related codes, which are in force at the time of building plan submittal.

F2. The Fire Prevention Bureau is required to set a minimum fire flow for the remodel or construction of all commercial buildings per CFC Appendix B and Table B105.1. The applicant/developer shall provide documentation to show there exists a water system capable of delivering_4000__ GPM for_4__ hour(s) duration at 20-PSI residual operating pressure. The required fire flow may be adjusted during the approval process to reflect changes in design, construction type, or automatic fire protection measures as approved by the Fire Prevention Bureau. Specific requirements for the project will be determined at time of submittal. (CFC 507.3, Appendix B) . **The 50% reduction in fire flow was granted for the use of fire sprinklers throughout the facility. The reduction shall only apply to fire flow, hydrant spacing shall be per the fire flow requirements listed in CFC Appendix B and C.**

F3. Industrial, Commercial, Multi-family, Apartment, Condominium, Townhouse or Mobile Home Parks. A combination of on-site and off-site super fire hydrants (6" x 4" x 2 ½" x 2 ½") and super enhanced fire hydrants (6" x 4" x 4" x 2 ½") shall not be closer than 40 feet and more than 150 feet from any portion of the building as measured along approved emergency vehicular travel ways. The required fire flow shall be available from any adjacent fire hydrant(s) in the system. Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, super or enhanced fire hydrants as determined by the fire code official shall be provided at spacing not to exceed 500 feet of frontage for transportation hazards. (CFC 507.5.7 & MVMC 8.36.060 Section K)

F4. Maximum cul-de-sac or dead end road length shall not exceed 660 feet. The Fire Chief, based on City street standards, shall determine minimum turning radius for fire apparatus based upon fire apparatus manufacture specifications. (CFC 503.2)

F5. During phased construction, dead end roadways and streets which have not been completed shall have a turn-around capable of accommodating fire apparatus. (CFC 503.2 and 503.2.5)

F6. Prior to issuance of Building Permits, the applicant/developer shall provide the Fire Prevention Bureau with an approved site plan for Fire Lanes and signage. (MVMC 8.36.050 and CFC 501.3)

F7. Prior to construction and issuance of building permits, all locations where structures are to be built shall have an approved Fire Department emergency vehicular access road (all weather surface) capable of sustaining an imposed load of 80,000 lbs. GVW, based on street standards approved by the Public Works Director and the Fire Prevention Bureau. (CFC 501.4 and MVMC 8.36.050 Section A)

F8. Prior to construction and issuance of Building Permits, fire lanes and fire apparatus access roads shall have an unobstructed width of not less than twenty–four (24) or thirty (30) feet as approved by the Fire Prevention Bureau and an unobstructed vertical clearance of not less the thirteen (13) feet six (6) inches. (CFC 503.2.1 and MVMC 8.36.060[E])

F9. Prior to construction, all locations where structures are to be built shall have an approved Fire Department access based on street standards approved by the Public Works Director and the Fire Prevention Bureau. (CFC 501.3)

F10. Prior to building construction, dead end roadways and streets which have not been completed shall have a turnaround capable of accommodating fire apparatus. (CFC 503.2.5)

F11. Prior to issuance of Building Permits, the applicant/developer shall participate in the Fire Impact Mitigation Program. (Fee Resolution as adopted by City Council)

F12. Prior to issuance of Building Permits, the applicant/developer shall furnish one copy of the water system plans to the Fire Prevention Bureau for review. Plans shall:

a) Be signed by a registered civil engineer or a certified fire protection engineer;
b) Contain a Fire Prevention Bureau approval signature block; and
c) Conform to hydrant type, location, spacing of new and existing hydrants and minimum fire flow required as determined by the Fire Prevention Bureau.

After the local water company signs the plans, the originals shall be presented to the Fire Prevention Bureau for signatures. The required water system, including fire hydrants, shall be installed, made serviceable, and be accepted by the Moreno Valley Fire Department prior to beginning construction. They shall be maintained accessible.

Existing fire hydrants on public streets are allowed to be considered available. Existing fire hydrants on adjacent properties shall not be considered available

unless fire apparatus access roads extend between properties and easements are established to prevent obstruction of such roads. (CFC 507.5)

F13. Prior to issuance of Certificate of Occupancy or Building Final, "Blue Reflective Markers" shall be installed to identify fire hydrant locations in accordance with City specifications. (CFC 509.1)

F14. Prior to issuance of Certificate of Occupancy or Building Final, all commercial buildings shall display street numbers in a prominent location on the street side and rear access locations. The numerals shall be a minimum of twelve (12) inches in height for buildings and six (6) inches in height for suite identification on a contrasting background. Unobstructed lighting of the address(s) shall be by means approved by the Fire Prevention Bureau and Police Department. In multiple suite centers (strip malls), businesses shall post the name of the business on the rear door(s). (CFC 505.1)

F15. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire sprinkler system based on square footage and type of construction, occupancy or use. Fire sprinkler plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9)

F16. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire alarm system monitored by an approved Underwriters Laboratory listed central station based on a requirement for monitoring the sprinkler system, occupancy or use. Fire alarm panel shall be accessible from exterior of building in an approved location. Plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9 and MVMC 8.36.100)

F17. Prior to issuance of a Certificate of Occupancy or Building Final, a "Knox Box Rapid Entry System" shall be provided. The Knox-Box shall be installed in an accessible location approved by the Fire Chief. All exterior security emergency access gates shall be electronically operated and be provided with Knox key switches for access by emergency personnel. (CFC 506.1)

F18. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall be responsible for obtaining underground and/or above ground tank permits for the storage of combustible liquids, flammable liquids, or any other hazardous materials from both the County of Riverside Community Health Agency Department of Environmental Health and the Fire Prevention Bureau. (CFC 105)

F19. Prior to issuance of Certificate of Occupancy, approval shall be required from the County of Riverside Community Health Agency (Department of Environmental Health) and Moreno Valley Fire Prevention Bureau to maintain, store, use, handle materials, or conduct processes which produce conditions hazardous to life or property, and to install equipment used in connection with such activities. (CFC 105)

F20. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer must submit a simple plot plan, a simple floor plan, and other plans as requested, each as an electronic file in .dwg format, to the Fire Prevention Bureau. Alternate file formats may be acceptable with approval by the Fire Chief.

F21. The angle of approach and departure for any means of Fire Department access shall not exceed 1 ft drop in 20 ft (0.3 m drop in 6 m), and the design limitations of the fire apparatus of the Fire Department shall be subject to approval by the AHJ. (CFC 503 and MVMC 8.36.060)

F22. Prior to issuance of the building permit for development, independent paved access to the nearest paved road, maintained by the City shall be designed and constructed by the developer within the public right of way in accordance with City Standards. (MVMC 8.36.060)

F23. Prior to construction, “private” driveways over 150 feet in length shall have a turn-around as determined by the Fire Prevention Bureau capable of accommodating fire apparatus. Driveway grades shall not exceed 12 percent. (CFC 503 and MVMC 8.36.060)

F24. Complete plans and specifications for fire alarm systems, fire-extinguishing systems (including automatic sprinklers or standpipe systems), clean agent systems (or other special types of automatic fire-extinguishing systems), as well as other fire-protection systems and appurtenances thereto shall be submitted to the Moreno Valley Fire Prevention Bureau for review and approval prior to system installation. Submittals shall be in accordance with CFC Chapter 9 and associated accepted national standards.

F25. A permit is required to maintain, store, use or handle materials, or to conduct processes which produce conditions hazardous to life or property, or to install equipment used in connection with such activities. Such permits shall not be construed as authority to violate, cancel or set aside any of the provisions of this code. Such permit shall not take the place of any license required by law. Applications for permits shall be made to the Fire Prevention Bureau in such form and detail as prescribed by the Bureau. Applications for permits shall be accompanied by such plans as required by the Bureau. Permits shall be kept on the premises designated therein at all times and shall be posted in a conspicuous location on the premises or shall be kept on the premises in a location designated by the Fire Chief. Permits shall be subject to inspection at all times by an officer of the fire department or other persons authorized by the Fire Chief in accordance with CFC 105 and MVMC 8.36.100.

F26. Approval of the safety precautions required for buildings being constructed, altered or demolished shall be required by the Fire Chief in addition to other approvals required for specific operations or processes associated with such construction, alteration or demolition. (CFC Chapter 14 & CBC Chapter 33)

F27. Prior to issuance of Certificate of Occupancy, permits are required to store, dispense, use or handle hazardous material. Each application for a permit shall include a hazardous materials management plan (HMMP). The location of the

HMMP shall be posted adjacent to (other) permits when an HMMP is provided. The HMMP shall include a facility site plan designating the following:

a) Storage and use areas;
b) Maximum amount of each material stored or used in each area;
c) Range of container sizes;
d) Locations of emergency isolation and mitigation valves and devises;
e) Product conveying piping containing liquids or gases, other than utility-owned fuel gas lines and low-pressure fuel gas lines;
f) On and off positions of valves for valves which are of the self-indicating type;
g) Storage plan showing the intended storage arrangement, including the location and dimensions of aisles. The plans shall be legible and approximately to scale. Separate distribution systems are allowed to be shown on separate pages; and
h) Site plan showing all adjacent/neighboring structures and use.

NOTE: Each application for a permit shall include a hazardous materials inventory statement (HMIS).

F28. Before a Hazardous Materials permit is issued, the Fire Chief shall inspect and approve the receptacles, vehicles, buildings, devices, premises, storage spaces or areas to be used. In instances where laws or regulations are enforceable by departments other than the Fire Prevention Bureau, joint approval shall be obtained from all departments concerned. (CFC Chapter 27)

F29. Construction or work for which the Fire Prevention Bureau's approval is required shall be subject to inspection by the Fire Chief and such construction or work shall remain accessible and exposed for inspection purposes until approved. (CFC Section 105)

F30. The Fire Prevention Bureau shall maintain the authority to inspect, as often as necessary, buildings and premises, including such other hazards or appliances designated by the Fire Chief for the purpose of ascertaining and causing to be corrected any conditions which would reasonably tend to cause fire or contribute to its spread, or any violation of the purpose or provisions of this code and of any other law or standard affecting fire safety. (CFC Section 105)

F31. Permit requirements issued, which designate specific occupancy requirements for a particular dwelling, occupancy, or use, shall remain in effect until such time as amended by the Fire Chief. (CFC Section 105)

F32. In accordance with the California Fire Code Appendix Chapter 1, where no applicable standards or requirements are set forth in this code, or contained within other laws, codes, regulations, ordinances or bylaws adopted by the jurisdiction, compliance with applicable standards of the National Fire Protection Association or other nationally recognized fire safety standards as are approved shall be deemed as prima facie evidence of compliance with the intent of this code as approved by the Fire Chief. (CFC Section 102.8)

F33. Any alterations, demolitions, or change in design, occupancy and use of buildings or site will require plan submittal to the Fire Prevention Bureau with review and approval prior to installation. (CFC Chapter 1)

F34. Emergency and Fire Protection Plans shall be provided when required by the Fire Prevention Bureau. (CFC Section 105)

F35. Prior to Certificate of Occupancy all locations where medians are constructed and prohibit vehicular ingress/egress into or away from the site, provisions must be made to construct a median-crossover at all locations determined by the Fire Marshal and the City Engineer. Prior to the construction, design plans will be submitted for review and approval by the City Engineer and all applicable inspections conducted by Land Development Division.

F36. Prior to construction, all traffic calming designs/devices must be approved by the Fire Marshal and City Engineer.

Case Number: P12-102 P12-103 **A.P.N.:** 486-310-023, 24

This is certification the water system is capable of meeting the following required fire flows as determined by the California Fire Code Appendix B.

Based on the information provided on the above referenced case. The fire flow required for this project will be _4000__ G.P.M. for duration of __4__-HOURS measured at 20-psi residual pressure.

The required fire flow may be adjusted during the approval process to reflect changes in design, construction type or automatic fire protection measures as approved by the Fire Prevention Bureau.

Applicant/ Developer:

By: **Date:**

Title:

WATER AGENCY APPROVAL

Name of Agency:

Address:

Telephone: **Date:**

By: **Title:**

NOTE: **THE COMPLETION AND SUBMITTAL OF THIS LETTER TO THE FIRE PREVENTION BUREAU SHALL NOT BE CONSTRUED AS APPROVAL FOR THE INSTALLATION OF THE REQUIRED FIRE HYDRANT (S) AND/OR WATER SYSTEM.**

File: Fire Flow Letter City of Moreno Valley

CITY OF MORENO VALLEY
COMMUNITY & ECONOMIC DEVELOPMENT - LAND DEVELOPMENT DIVISION
CONDITIONS OF APPROVAL
P12-103 Amended Plot Plan – Kaiser Hospital Emergency Room Expansion
APN 486-310-023, 486-310-024

Note: All Special Conditions are in **Bold** lettering and follow the standard conditions.

COMMUNITY & ECONOMIC DEVELOPMENT – LAND DEVELOPMENT DIVISION

The following are the Community & Economic Development Department – Land Development Division Conditions of Approval for this project and shall be completed at no cost to any government agency. All questions regarding the intent of the following conditions shall be referred to the Community & Economic Development Department – Land Development Division.

General Conditions

LD1. (G) The developer shall comply with all applicable City ordinances and resolutions including the City's Municipal Code (MC)

LD2. (G) It is understood that the amended plot plan correctly shows all existing easements, traveled ways, and drainage courses, and that their omission may require the map or plans associated with this application to be resubmitted for further consideration. (MC 9.14.040)

LD3. (G) The developer shall monitor, supervise and control all construction and construction supportive activities, so as to prevent these activities from causing a public nuisance, including but not limited to, insuring strict adherence to the following:

a. Removal of dirt, debris, or other construction material deposited on any public street no later than the end of each working day.

b. Observance of working hours as stipulated on permits issued by the Public Works Department.

c. The construction site shall accommodate the parking of all motor vehicles used by persons working at or providing deliveries to the site.

d. All dust control measures per South Coast Air Quality Management District (SCAQMD) requirements shall be adhered to during the grading operations.

Violation of any condition or restriction or prohibition set forth in these conditions shall subject the owner, applicant, developer or contractor(s) to remedies as noted in the City Municipal Code 8.14.090. In addition, the City Engineer or Building Official may suspend all construction related activities for violation of any condition, restriction or prohibition set forth in these conditions until such time as

it has been determined that all operations and activities are in conformance with these conditions.

LD4. (G) The final conditions of approval issued by the Planning Division subsequent to Planning Commission approval shall be photographically or electronically placed on mylar sheets and included in the Grading plan set on twenty-four (24) inch by thirty-six (36) inch mylar and submitted with the plan for plan check. These conditions of approval shall become part of this plan set and the approved plan shall be available in the field during grading and construction.

Prior to Grading Plan Approval or Grading Permit

LD5. (GPA) Prior to approval of the grading plans, plans shall be drawn on twenty-four (24) inch by thirty-six (36) inch mylar and signed by a registered civil engineer and other registered/licensed professional as required.

LD6. (GPA) Prior to approval of grading plans, the developer shall ensure compliance with the City Grading ordinance, these Conditions of Approval and the following criteria:

a. A grading permit shall be obtained from the Community and Economic Development Department Land Development Division prior to commencement of any grading outside of the City maintained road right-of-way.

b. The developer shall submit a soils and geologic report to the Community and Economic Development Department – Land Development Division. The report shall address the soil's stability and geological conditions of the site.

LD7. (GPA) Prior to the approval of the grading plans, the developer shall pay applicable remaining grading plan check fees.

LD8. (GP) Prior to issuance of a grading permit, security, in the form of a cash deposit (preferable), letter of credit, or performance bond shall be required to be submitted as a guarantee of the completion of the grading required as a condition of approval of the project.

LD9. (GP) Prior to issuance of a grading permit, the developer shall pay the applicable grading inspection fees.

Prior to Building Permit

LD10. (BP) Prior to issuance of a building permit, all pads shall meet pad elevations per approved plans as noted by the setting of "Blue-top" markers installed by a registered land surveyor or licensed engineer.

Prior to Certificate of Occupancy

LD11. (CO) Prior to issuance of the certificate of occupancy or building final, the developer shall pay all outstanding fees.

LD12. (CO) Prior to issuance of a certificate of occupancy, this project is subject to requirements under the current permit for storm water activities required as part of the National Pollutant Discharge Elimination System **(NPDES)** as mandated by the Federal Clean Water Act. In compliance with Proposition 218, the developer shall agree to approve the City of Moreno Valley NPDES Regulatory Rate Schedule that is in place at the time of certificate of occupancy issuance. Following are the requirements:

a. Select one of the following options to meet the financial responsibility to provide storm water utilities services for the required continuous operation, maintenance, monitoring system evaluations and enhancements, remediation and/or replacement, all in accordance with Resolution No. 2002-46.

    i. Participate in the mail ballot proceeding in compliance with Proposition 218, for the Common Interest, Commercial, Industrial and Quasi-Public Use NPDES Regulatory Rate Schedule and pay all associated costs with the ballot process; or
    ii. Establish an endowment to cover future City costs as specified in the Common Interest, Commercial, Industrial and Quasi-Public Use NPDES Regulatory Rate Schedule.

b. Notify the Special Districts Division of the intent to request building permits 90 days prior to their issuance and the financial option selected. The financial option selected shall be in place prior to the issuance of certificate of occupancy. (California Government Code & Municipal Code)

LD13. (CO) Prior to issuance of a certificate of occupancy or building final, all existing and new utilities adjacent to and on-site shall be placed underground in accordance with City of Moreno Valley ordinances. (MC 9.14.130)

SPECIAL CONDITIONS

LD14. The project will require submittal of a separate precise grading plan (24" x 36" size) directly to the Land Development Division for review and approval.

LD15. Prior to precise grading plan approval, the grading plans shall clearly show that the parking lot conforms to City standards. The parking lot shall be 5% maximum, 1% minimum, 2% maximum at or near any disabled parking stall and travel way. Ramps, curb openings and travel paths shall all conform to current ADA standards as outlined in Department of Justice's "ADA Standards for Accessible Design", Excerpt from 28 CFR Part 36.

LD16. Prior to precise grading plan approval, the plans shall show that the designer has made a good faith effort to incorporate, to the greatest extent feasible, implementation of water quality treatment. This may be accomplished via site design, source control and/or treatment control Best Management Practices (BMPs). These water quality BMPs might include but not be limited to, directing the roof drains to a landscaped area instead of directly to the concrete drive or parking lot, including grass swales, utilization of porous pavement, providing additional trash cans, etc.

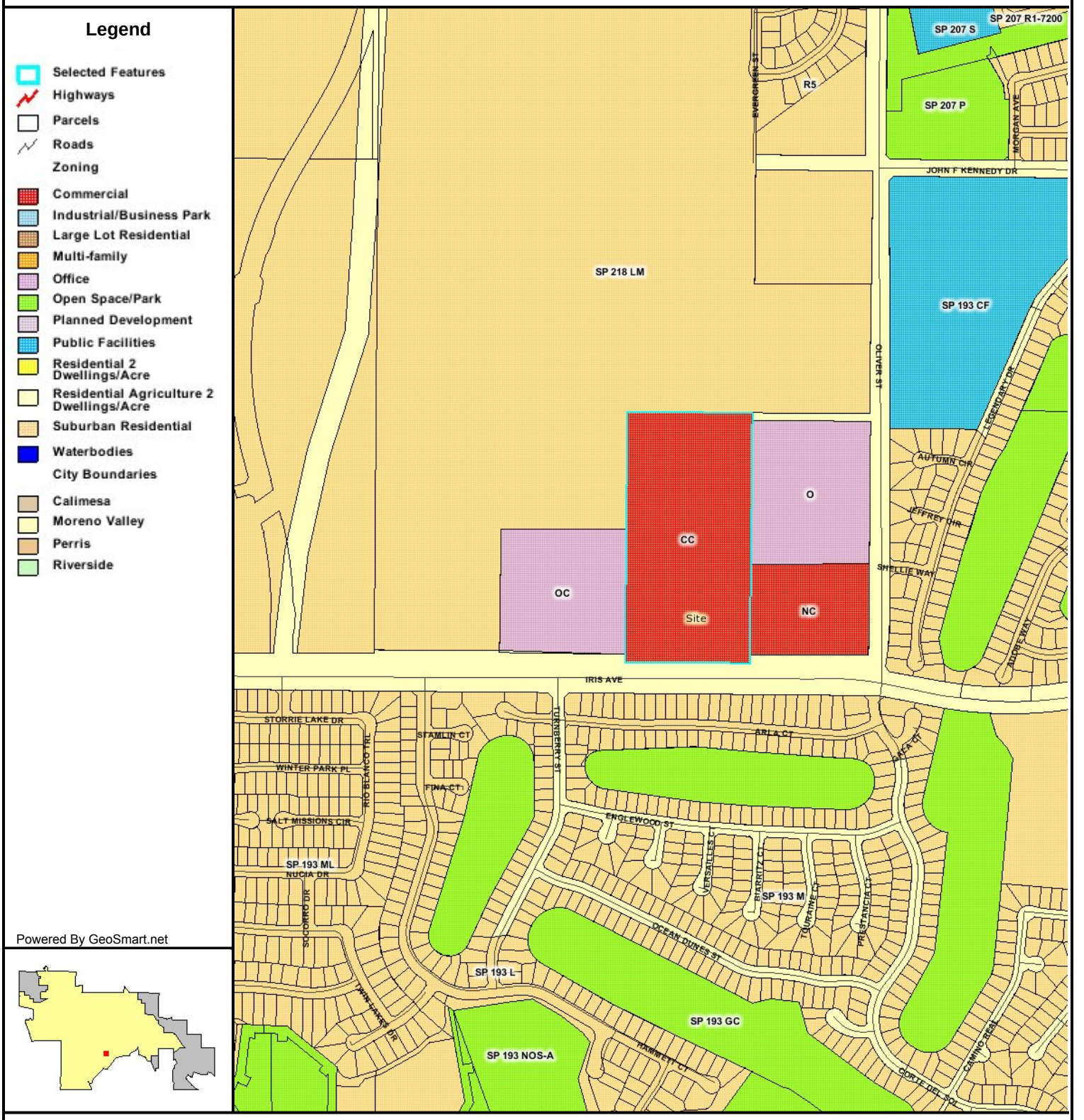
Riverside County's "Supplement A" and "Supplement A – Attachment" shall be used to select on-site BMPs.

LD17. Prior to occupancy, the applicant shall schedule a walk through with a Public Works Inspector to inspect existing improvements within public right-of-way along project frontage. The applicant will be required to install, replace and/or repair any missing, damaged or substandard improvements including handicap access ramps that do not meet current City standards. The applicant shall post security to cover the cost of the repairs and complete the repairs within the time allowed in the public improvement agreement used to secure the improvements.

LD18. Prior to occupancy permit issuance, all overhead utility lines less than 115,000 volts fronting or within the entire project site boundary shall be placed underground per Section 9.14.130C of the City Municipal Code.

P12-102, 103

Kaiser



City of Moreno Valley
14177 Frederick St
Moreno Valley, CA 92553

DISCLAIMER: The information shown on this map was compiled from the Riverside County GIS and the City of Moreno Valley GIS. The land base and facility information on this map is for display purposes only and should not be relied upon without independent verification as to its accuracy. Riverside County and City of Moreno Valley will not be held responsible for any claims, losses, or damages resulting from the use of this map.

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MORENO VALLEY
WHERE DREAMS SOAR

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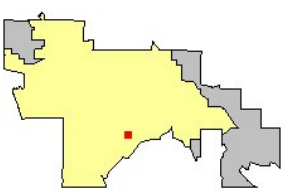
P12-102, 103

Kaiser

Legend

- Selected Features
- Highways
- Parcels
- Roads
- Waterbodies
- City Boundaries
- Calimesa
- Moreno Valley
- Perris
- Riverside

Powered By GeoSmart.net



City of Moreno Valley
14177 Frederick St
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MORENO VALLEY
WHERE DREAMS SOAR

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DLR Group WWCOT
Architecture Engineering Planning Interiors

LICENSED ARCHITECT — JAMIE TOSCHNER — PAMELA — C-34603 — 12/31/2013 — STATE OF CALIFORNIA

ASK
75-11637-00
03/30/12
Revisions
A 7/9/12

SITE PLAN
EMERGENCY ROOM INTERIM EXPANSION
KAISER PERMANENTE MORENO VALLEY COMMUNITY HOSPITAL

27300 Iris Avenue
Moreno Valley, CA 92555

KAISER PROJECT No. K2404

11 / 26 / 2012
REVISIONS

SHEET NOTES

LEGEND

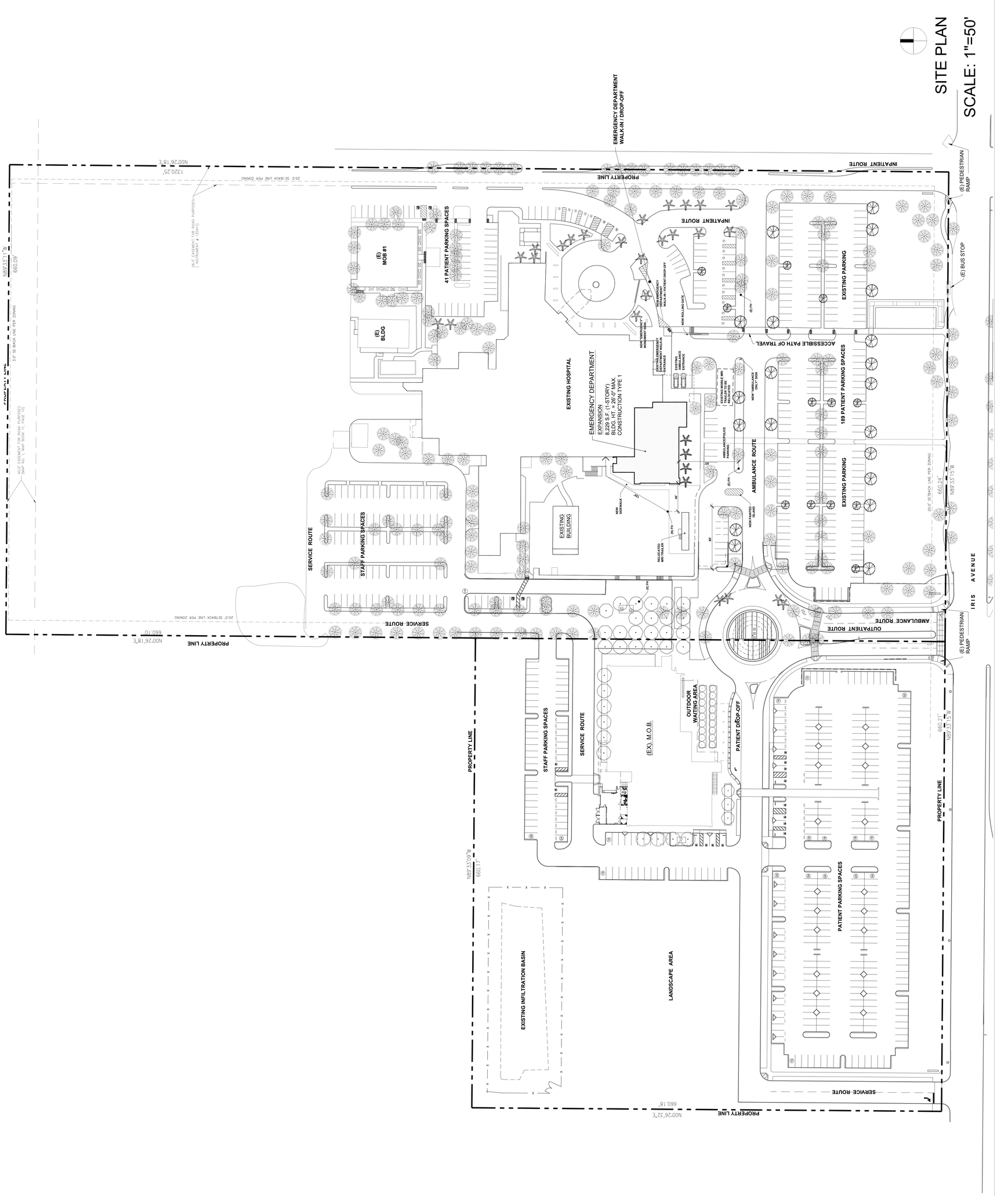
(E) TREES
(N) 24" BOX TREES
(N) 15 GALLON TREES

ZONING INFORMATION:
ANNOTATION: CC
GENERAL LAND USE: COMMERCIAL

ASSESSOR PARCEL NUMBER:
486310023

CC
APN: 486310023

OSHPD No:
P-2012-00780
CASE No: P12-102, P12-103
APN: 486-310-023, 04
DATE: 10 / 17 /2012



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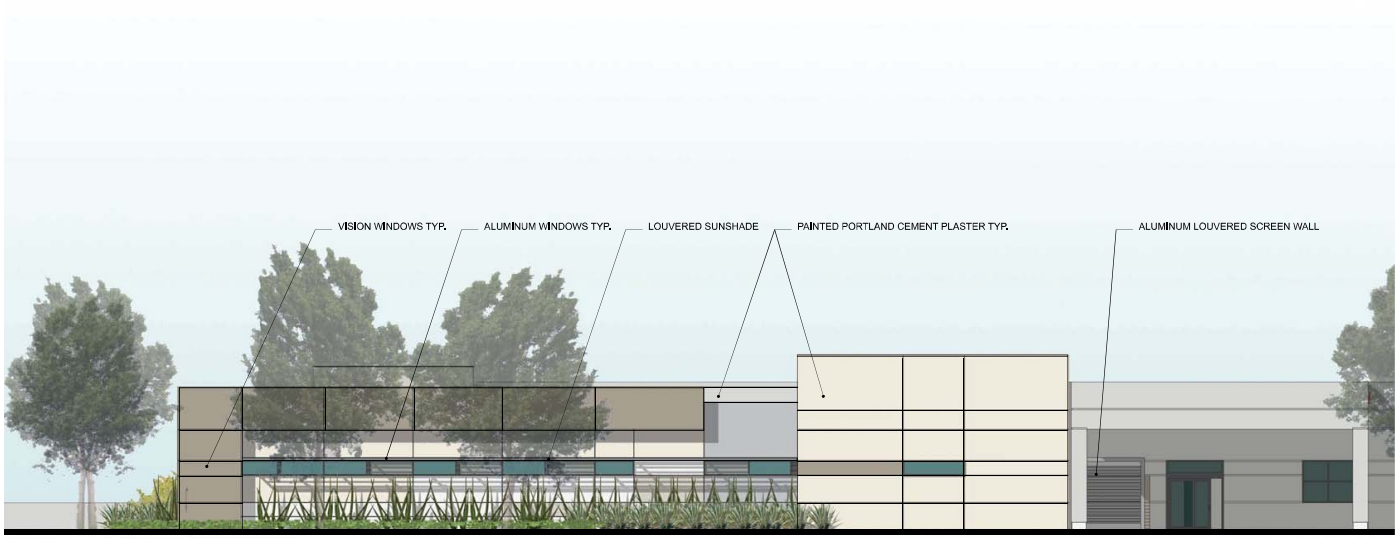

SOUTH ELEVATION PERSPECTIVE

WEST ELEVATION PERSPECTIVE

PAINT LEGEND
SHERWIN-WILLIAMS PAINTS

7051 ANALYTICAL GRAY - MEDIUM BEIGE

0024 CURIO GRAY - DARK BEIGE

632 BONE WHITE (55) - WHITE

7019 GAUNTLET GRAY - DARK GRAY

KAISER PERMANENTE®

DLR Group WWCOT
Architecture Engineering Planning Interiors

EMERGENCY ROOM INTERIM EXPANSION
KAISER PERMANENTE MORENO VALLEY COMMUNITY HOSPITAL
27300 Iris Avenue, Moreno Valley, CA 92555

ELEVATIONS
CASE NO. P12-0102, P12-103
APN: 486-310-023, 04
DATE: 10/17/2012

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ATTACHMENT 6

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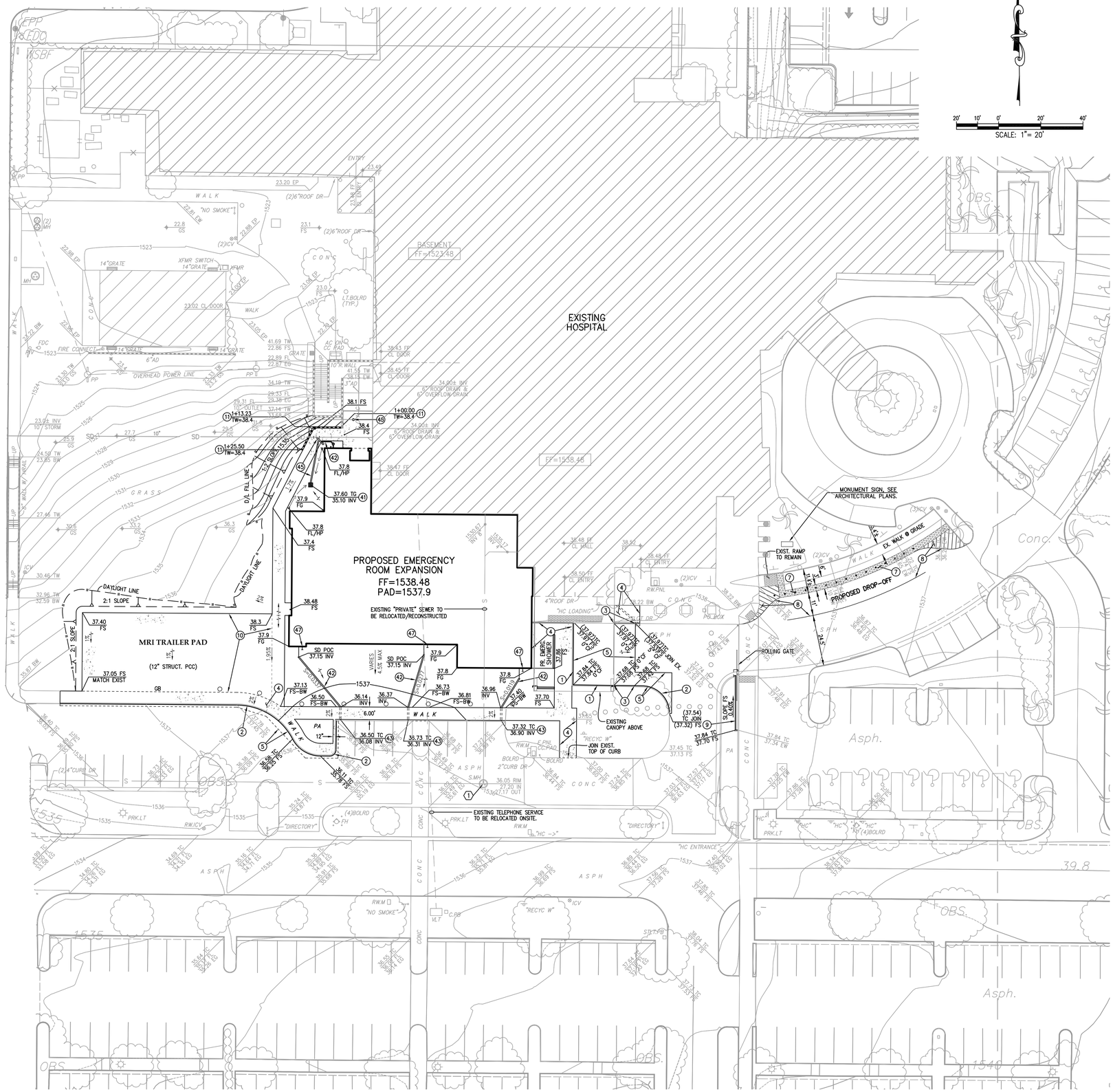

GRADING AND PAVING

1. PROTECT IN PLACE.
1. CONSTRUCT 0" PCC CURB ONLY PER DETAIL 1 ON SHEET C3.00.
2. CONSTRUCT TYPE 6A CURB ONLY PER CITY OF MORENO VALLEY STD. NO. 202, MODIFIED TO MATCH EXISTING CURB FACE (4" CF).
3. CONSTRUCT PCC CURB TRANSITION, 6" CF TO 0" CF.
4. CONSTRUCT 4" THICK PCC SIDEWALK, WIDTH PER PLAN, PER DETAIL 4 ON SHEET C3.0.
5. CONSTRUCT 5" A.C./8" A.B.
7. INSTALL ADHERED PANEL DETECTABLE WARNING, ARMORCAST PRODUCTS CO. OR APPROVED EQUAL. SURFACE PER CITY OF MORENO VALLEY STD. NO. 214C AND DETAIL 7 ON SHEET C3.0
8. INSTALL 4" SOLID WHITE STRIPING OR SOLID BLUE STRIPING AS NOTED.
9. PCC CURB AND ROLLING GATE TRACK PER ARCHITECTURAL PLANS, DETAIL 1, SHEET A8.5.
10. CONSTRUCT 12" THICK STRUCTURAL PCC TRAILER PAD.
11. CONSTRUCT RETAINING WALL, HEIGHT PER PLAN.

STORM DRAIN

41. INSTALL JENSEN PRECAST 12"x12" DROP INLET MODEL 1212-HDI PER DETAIL 41 ON SHEET C3.0, OR APPROVED EQUIVALENT.
42. INSTALL 4" PVC SDR 35 DRAIN PIPE, S=0.0100 UNLESS NOTED OTHERWISE.
43. INSTALL 3" x 5" GALVANIZED RECTANGULAR STEEL PIPE AND CURB-O-LET THROUGH CURB DRAIN MODEL TCD 35 PER DETAIL 43 ON SHEET C3.0 OR APPROVED EQUIVALENT.
44. INSTALL 3" x 12" GALVANIZED RECTANGULAR STEEL PIPE AND CURB-O-LET THROUGH CURB DRAIN MODEL TCD 312 PER DETAIL 43 ON SHEET C3.0 OR APPROVED EQUIVALENT.
45. INSTALL 6" PVC SDR 35, S=0.01 UNLESS NOTED OTHERWISE.
46. INSTALL CLEANOUT.
47. INSTALL 12" x 24" PRECAST CONCRETE SPLASH BLOCK.
48. INSTALL 6" DIAMETER BRASS DECK DRAIN.

SYMBOLS LEGEND

AC	AIR CONDITIONER
AD	AREA DRAIN
ASPH	ASPHALT
BOLRD	BOLLARD
BW	BACK OF WALK
C	CABLE
CC	CONCRETE
CL	CENTERLINE
CONC	CONCRETE
DR	DRAIN
E	ELECTRICAL
EG	EDGE OF GUTTER
EMRG	EMERGENCY
EP	EDGE OF PAVEMENT
EW	EDGE OF WALK
FDC	FIRE DEPARTMENT CONNECTION
FF	FINISHED FLOOR
FH	FIRE HYDRANT
FL	FLOW LINE
FS	FINISHED SURFACE
GS	GROUND SHOT
ICV	IRRIGATION CONTROL VALVE
INV	INVERT
LT	LIGHT
M	METER
MH	MANHOLE
PA	PLANTER AREA
PB	PULLBOX
PCC	PORTLAND CEMENT CONCRETE
PIV	POST INDICATOR VALVE
PNL	PANEL
PP	POWER POLE
PRK	PARKING
RET	RETAINING
RW	RECYCLED WATER
S	SEWER
STLT	STREET LIGHT
TC	TOP OF CURB
TW	TOP OF WALL
V	VALVE
W	WATER
XFMR	TRANSFORMER
* *	INDICATES GENERAL CONTENT OF SIGN
( )	INDICATES QUANTITY IN AREA

FIRE HYDRANT
LIGHT
POWER POLE
LIMITS OF CONSTRUCTION
CONSTRUCTION FENCING
PHASE 1 TEMPORARY ACCESS

SITE AREAS

GROSS AREA	19.69 ACRES
PROJECT SITE AREA (DISTURBED)	0.54 ACRES

GRADING QUANTITIES

CUT	4,314 CY
FILL	4,640 CY
IMPORT	326 CY

UTILITY PURVEYORS

SEWER: EASTERN MUNICIPAL WATER DISTRICT
WATER: EASTERN MUNICIPAL WATER DISTRICT
TELEPHONE: VERIZON
ELECTRICAL: SOUTHERN CALIFORNIA EDISON
GAS: SOUTHERN CALIFORNIA GAS

SOURCE OF SITE TOPOGRAPHY

THE SITE TOPOGRAPHY DEPICTING THE EXISTING CONDITIONS OF THE MEDICAL SITE WAS COMPILED FROM THE FOLLOWING SOURCES:

1. A TOPOGRAPHIC SURVEY DATED OCTOBER 27, 2008, PREPARED BY SB&O, INCLUDING PREVIOUS ALTA SURVEY INFORMATION PROVIDED BY KAISER PERMANENTE, AND;
2. A FIELD TOPOGRAPHIC VERIFICATION SURVEY OF THE EMERGENCY DEPARTMENT ADDITION PROJECT LIMITS PREPARED BY HALLADAY & MIM MACK IN OCTOBER, 2011.

PRELIMINARY GRADING PLAN

CITY CASE Nos: P12-102 & P12-103

APN: 486-310-023

NOVEMBER 21, 2012

PRELIM. PRECISE GRADING & DRAINAGE PLAN
EMERGENCY ROOM INTERIM EXPANSION
KAISER PERMANENTE MORENO VALLEY COMMUNITY HOSPITAL

27300 Iris Avenue
Moreno Valley, CA 92555

KAISER PROJECT No. K2404

C0.0
75-11637-00
03/30/12
Revisions

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LAND SURVEYING
9065 HAVEN AVENUE, SUITE 100
RANCHO CUCAMONGA, CA 91730
909-466-4555 PHONE
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DLR Group WWCOT
Architecture Engineering Planning Interiors

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