PLANNING COMMISSION
Regular Meeting

Agenda

Thursday, November 12, 2020 at 7:00 PM

TELECONFERENCED MEETING
[Pursuant to Governor Executive Order N-29-20]

There Will Not Be a Physical Location for Attending the Meeting

The Public May Observe the Meeting and Offer Public Comment As Follows:

STEP 1

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Public Comments May be Made Via Zoom

During the Meeting, the Planning Commission Chair Will Explain the Process for Submitting Public Comments

ALTERNATIVE

If you do not wish to make public comments, you can view the meeting on Channel MVTV-3, the City's website at www.moval.org or YouTube

Upon request, this agenda will be made available in appropriate alternative formats to persons with disabilities, in compliance with the Americans with Disabilities Act of 1990. Any person with a disability who requires a modification or accommodation in order to participate in a meeting should direct such request to Guy Pegan, ADA Coordinator, at 951.413.3120 at least 72 hours before the meeting. The 72-hour notification will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

CALL TO ORDER

ROLL CALL

PLEDGE OF ALLEGIANCE

APPROVAL OF AGENDA

PUBLIC COMMENTS PROCEDURE

During the public comment period for each item, as well as during the public comment period for items not on the agenda, the clerk will call upon each person who is on the Zoom application that has requested to speak. Each member of the public wishing to speak will have a maximum of 3 minutes to speak on any agenda item, except for the applicant for entitlement. The Commission may establish an overall time limit for comments on a particular Agenda item. Members of the public must direct their questions to the Chairperson of the Commission and not to other members of the Commission, the applicant, the staff, or the audience. Those wishing to speak should follow the teleconference procedures. If you are absent at the time your name is called, you will forfeit the opportunity to speak on the items.

PUBLIC COMMENTS ON ANY ITEM NOT ON THE AGENDA

CONSENT CALENDAR

All matters listed under Consent Calendar are considered to be routine and non-controversial, and may l be enacted by one roll call vote. There will be no discussion of these items unless a member of the Planning Commission requests that an item be removed for separate action.

1. Planning Commission Minutes – Regular Meeting – October 22, 2020 7:00 PM

NON-PUBLIC HEARING ITEMS

No items for discussion.

PUBLIC HEARING ITEMS

1.	Case:	PEN20-0066 - General Plan Amendment PEN20-0067 - Change of Zone PEN20-0063 - Tentative Tract Map 37909 PEN20-0065 - Conditional Use Permit for a Planned Unit Development
	Applicant:	Passco Pacifica LLC
	Property Owner	Maple Lane Group, LLC
	Representative	Rafik Albert, EPD Solutions
	Location:	South side of Iris Avenue east of Perris Boulevard APN. 312-020-025
	Case Planner:	Julia Descoteaux
	Council District:	4

	Proposal	The application requests approval of the following entitlements for an 10.82-acre site: 1) a General Plan Amendment (GPA) amending Figure 2-2 “Land Use Map” of the Moreno Valley General Plan to change the land use designation of the Project site from Residential 5 (R5) to Residential 10 (R10); 2) a Change of Zone amending the City of Moreno Valley Zoning Atlas to rezone the Project site from Residential 5 (R5) District to Residential Single-Family 10 (RS10) District; 3) a Tentative Tract Map 37909 to subdivide into eighty-one (81) single family lots; and 4) a Conditional Use Permit for a Planned Unit Development with associated amenities and public improvements.
2.	Case:	PEN19-0244 - Amended Tentative Tract Map 33436 PEN19-0245 - Variance for wall heights
	Applicant:	Nick Streeter of Adams Streeter Civil Engineers, Inc.
	Property Owner	Kester Street, LLC
	Representative	Nick Streeter of Adams Streeter Civil Engineers, Inc.
	Location:	Northwest corner of Ironwood Avenue and Lasselle Street (APN’S: 474-200-014 and 025)
	Zoning:	Residential 5 (R5) District
	Case Planner:	Gabriel Diaz
	Council District:	2
	Proposal	A proposal to amend Tentative Tract Map (TTM No. 33436) to reduce the number of lots from 105 to 104 and modify project grading; and a Variance application to increase the height of a combined retaining and freestanding wall from 8 feet to 21 feet adjacent to Palm Middle School.
3.	Case:	PEN19-0206 - General Plan Amendment PEN19-0207 - Change of Zone PEN19-0204 - Conditional Use Permit – Drive

		Through Restaurant with Outdoor Seating PEN19-0205 - Conditional Use Permit – Fueling Station with Convenience Store with Beer and Wine Sales
	Applicant:	Cadence Acquisition LLC
	Property Owner	John David Monjazi and Jonathan J Monjazi
	Representative	Greg Fick
	Location:	Northeast corner of Perris Boulevard at Dracaea Avenue
	Case Planner:	Julia Descoteaux
	Council District:	3
	Proposal:	The Applicant is requesting approval of the following entitlements for an 2.04-acre site: 1) a General Plan Amendment (GPA) amending Figure 2-2 "Land Use Map" of the Moreno Valley General Plan to change the land use designation of the Project site from Residential/ Office (R/O) to Commercial (C); 2) a Change of Zone amending the City of Moreno Valley Zoning Atlas to rezone the project site from Office (O) District and Office Commercial (OC) District to Community Commercial (CC) District; 3) a Conditional Use permit for a vehicle fueling station and convenience store; and 4) a Conditional Use Permit for a drive-through restaurant with outdoor seating.

4.	Case:	PEN20-0189 - Municipal Code Amendment
	Applicant:	City of Moreno Valley
	Case Planner:	Sean P. Kelleher
	Council District:	Citywide
	Proposal	Municipal Code Amendments amending various sections within Title 9 Planning and Zoning: Chapter 9.02 Permits and Approvals, Chapter 9.09 Specific Use Development Standards, Chapter 9.11 Parking, Pedestrian and Loading Requirements, and Chapter 9.12 Sign Regulations.

OTHER COMMISSION BUSINESS

No items for discussion.

STAFF COMMENTS

PLANNING COMMISSIONER COMMENTS

ADJOURNMENT

Planning Commission Regular Meeting, November 26, 2020 at 7:00 P.M., City of Moreno Valley, City Hall Council Chamber, 14177 Frederick Street, Moreno Valley, CA 92553.

OFFICIAL MINUTES OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY

REGULAR MEETING – 7:00 PM
October 22, 2020

TELECONFERENCED MEETING
[Pursuant to Governor Executive Order N-29-20]

There Will Not Be a Physical Location for Attending the Meeting

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ALTERNATIVE

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CALL TO ORDER

This Regular meeting of the Planning Commission of the City of Moreno Valley was called to order at 7:06 p.m., by Chairperson Korzec in the Council Chambers located at 14177 Frederick Street, Moreno Valley, California.

ROLL CALL

Planning Commission:	Patricia Korzec	Chairperson	Present
	Ray L. Baker	Vice Chairperson	Present
	Robert Harris	Commissioner	Present
	JoAnn Stephan	Commissioner	Present
	Rafael Brugueras	Commissioner	Present
	Jeffrey Sims	Commissioner	Present
	Alvin DeJohnette	Commissioner	Present

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was led by Commissioner Harris.

APPROVAL OF AGENDA

Motion to approve the agenda was made by Vice Chairperson Baker and seconded by Commissioner DeJohnette.

Vote: 7-0
Ayes: Vice Chairperson Baker, Commissioner DeJohnette, Brugueras, Stephan, Harris, Sims and Chairperson Korzec
Action: **Approved**

PUBLIC COMMENTS PROCEDURE

PUBLIC COMMENTS

No public comments

CONSENT CALENDAR

1. Planning Commission - Regular Meeting - September 10, 2020 7:00 PM

   Motion to approve the minutes was made by Vice Chairperson Baker and seconded by Commissioner Harris.

   Vote: 7-0
   Ayes: Vice Chairperson Baker, Commissioner Harris, Brugueras, Stephan, DeJohnette, Sims and Chairperson Korzec
   Action: **Approved**

NON-PUBLIC HEARING ITEMS

No items for discussion.

PUBLIC HEARING ITEMS

1. Amended Conditional Use Permit to construct a new 5,776 square foot Sanctuary building and to reuse the existing 2,400 square foot Sanctuary building as a Children's Sunday School (Report of: Planning Commission)

    A. Approve Resolution No. 2020-41, and thereby:

        1. CERTIFY that Amended Conditional Use Permit PEN16-0034 is exempt from the provisions of the California Environmental Quality Act (CEQA) as a Class 1 Exemption (Section 15301, Existing Facilities); and

        2. APPROVE Amended Conditional Use Permit PEN16-0034 subject to the attached Conditions of Approval included as Exhibit A to the Resolution.

        Public Hearing Opened: 7:20 pm

        Speakers
        Tom Jerele

        Public Hearing Closed: 7:25 pm

        Motion to approve Resolution Number 2020-41 was made by Commissioner Sims and seconded by Commissioner DeJonhnette.

        Vote: 7-0
        Ayes: Commissioner Sims, DeJohnette, Brugueras, Stephan, Harris, Vice Chairperson Baker and Chairperson Korzec
        Action: **Approved**

2. Conditional Use Permit for a 900 square foot Smoke Shop named "Smoke N Cell". (Report of: Planning Commission)

    A. APPROVE Resolution No. 2020-40, and thereby:

        1. DETERMINING that Conditional Use Permit PEN20-0091 is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) as a Class 32 Exemption (Section 15332, In-Fill Development Projects); and

        2. APPROVE Conditional Use Permit PEN20-0091 subject to the attached Conditions of Approval included as Exhibit A to the Resolution.

        Public Hearing Opened: 7:36 pm

Speakers
Tom Jerele

Public Hearing Closed: 7:44 pm

Motion to approve Resolution No. 2020-40 was made by Commissioner Sims and seconded by Commissioner Brugueras.

Vote: 7-0
Ayes: Commissioner Sims, Brugueras, Stephan, Harris, DeJohnette, Vice Chairperson Baker and Chairperson Korzec
Action: **Approved**

OTHER COMMISSION BUSINESS

No items for discussion.

STAFF COMMENTS

No items for discussion.

PLANNING COMMISSIONER COMMENTS

Commissioner Brugueras advised parents to take care of their children, wear your face mask and maintain your 6 feet social distancing.

Commissioner Sims wanted to congratulate the Mayor, Council and all Leadership involved after seeing the Mayors Message for the removal of the homeless encampments along the 60 freeway. He was happy to see the work with Caltrans to get those removed and suggested that the Homeless Abatement Reporting Line be added to the City Website.

ADJOURNMENT

There being no further business to come before the Planning Commission, Chairperson Korzec adjourned the meeting at 7:47 PM.

Submitted by:

_____
Ashley Aparicio
Planning Commission Secretary

Approved by:

_____
Patricia Korzec
Chairperson

PLANNING COMMISSION

STAFF REPORT

Meeting Date: November 12, 2020

CONTINUANCE OF IRIS PARK COMMUNITY PROJECT PEN20-0063, PEN20-0065-0067 A GENERAL PLAN AMENDMENT, CHANGE OF ZONE, TENTATIVE TRACT MAP 37909, AND CONDITIONAL USE PERMIT

Case:	PEN20-0066 - General Plan Amendment PEN20-0067 - Change of Zone PEN20-0063 - Tentative Tract Map 37909 PEN20-0065 - Conditional Use Permit for a Planned Unit Development
Applicant:	Passco Pacifica LLC
Property Owner	Maple Lane Group, LLC
Representative	Rafik Albert, EPD Solutions
Location:	South side of Iris Avenue east of Perris Boulevard APN. 312-020-025
Case Planner:	Julia Descoteaux
Council District:	4
Proposal	The application requests approval of the following entitlements for an 10.82-acre site: 1) a General Plan Amendment (GPA) amending Figure 2-2 “Land Use Map” of the Moreno Valley General Plan to change the land use designation of the Project site from Residential 5 (R5) to Residential 10 (R10); 2) a Change of Zone amending the City of Moreno Valley Zoning Atlas to rezone the Project site from Residential 5 (R5) District to Residential Single-Family 10 (RS10) District; 3) a Tentative Tract Map

37909 to subdivide into eighty-one (81) single family lots; and 4) a Conditional Use Permit for a Planned Unit Development with associated amenities and public improvements.

SUMMARY

The applicant has requested a continuance for General Plan Amendment PEN20-0066, Change of Zone PEN20-0067, Tentative Tract Map 37909 PEN20-0063, and Conditional Use Permit PEN20-0065 to the December 10, 2020 Planning Commission Meeting. A copy of the request is provided as an attachment.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission **CONTINUE** General Plan Amendment PEN20-0066, Change of Zone PEN20-0067, Tentative Tract Map 37909 PEN20-0063, and Conditional Use Permit PEN20-0065 to the December 10, 2020 Planning Commission Meeting.

Prepared by:
Julia Descoteaux
Associate Planner

Approved by:
Patty Nevins
Planning Official

ATTACHMENTS

1. Applicants Continuance Request

Ashley Aparicio

From: Oscar Graham <oscar@pacificainvest.com>
Sent: Wednesday, November 4, 2020 5:29 PM
To: Julia Descoteaux
Cc: Patty Nevins; Manuel A. Mancha; Michael Lloyd, P.E.; Michael L. Wolfe, P.E.; Hoang Nguyen; Sean P. Kelleher; Scott Allen; Robert Beers; Rafik Albert; Jeremy Krout
Subject: Iris Park Community PEN20-0063, 0065-0067

Warning: External Email – Watch for Email Red Flags!

Hi Julia,
Thanks for your email. We appreciate everything you guys are doing to help us move the project forward. We'll go with your suggestion and we are formally requesting that our Planning Commission hearing be rescheduled to Dec.10th. Thank you and look forward to continuing working with you.

Oscar Graham
Pacifica Investments
oscar@pacificainvest.com
333 City Boulevard West, Suite 1700, Orange, CA 92868
Ph. 714.609.7257
www.pacificainvest.com

PLANNING COMMISSION

STAFF REPORT

Meeting Date: November 12, 2020

AMENDED TENTATIVE TRACT MAP (TTM NO. 33436) TO REDUCE THE NUMBER OF LOTS FROM 105 TO 104 AND MODIFY PROJECT GRADING; AND A VARIANCE APPLICATION TO INCREASE THE HEIGHT OF A COMBINED RETAINING AND FREESTANDING WALL FROM 8 FEET TO 21 FEET.

Case:	PEN19-0244 - Amended Tentative Tract Map 33436 PEN19-0245 - Variance for wall heights
Applicant:	Nick Streeter of Adams Streeter Civil Engineers, Inc.
Property Owner	Kester Street, LLC
Representative	Nick Streeter of Adams Streeter Civil Engineers, Inc.
Location:	Northwest corner of Ironwood Avenue and Lasselle Street (APN'S: 474-200-014 and 025)
Zoning:	Residential 5 (R5) District
Case Planner:	Gabriel Diaz
Council District:	2
Proposal	A proposal to amend Tentative Tract Map (TTM No. 33436) to reduce the number of lots from 105 to 104 and modify project grading; and a Variance application to increase the height of a combined retaining and freestanding wall from 8 feet to 21 feet adjacent to Palm Middle School.

SUMMARY

The Applicant, Nick Streeter of Adams Streeter Civil Engineers, Inc., submitted an application for an Amended Tentative Tract Map (TTM 33436) to reduce the number of lots from 105 to 104 and modify the project grading; and a Variance application to allow for a combination solid retaining and privacy wall with an overall height of 21 feet, adjacent to Palm Middle School, where a maximum 8 foot tall combination solid retaining and privacy wall is permitted. The property is zoned Residential 5 (R5) District.

BACKGROUND

Tentative Tract Map 33436 was originally approved by the Planning Commission on March 23, 2006, as a 105 lot single family residential development. Since 2006 expiration date of TTM 33436 has been extended by a combination of City granted extensions of time and multiple legislative actions made by the State of California associated with the great recession.

PROJECT DESCRIPTION

Project

Tentative Tract Map

The Applicant is requesting approval of Amended Tentative Tract Map 33436 to reduce the number of lots from 105 to 104 and modification of the project grading plan in order to reduce the amount of dirt that needs to be exported from the site.

Consistent with the original approval, each proposed single-family lot is designed to meet or exceed the Residential 5 (R5) District regulations, and will be at least 7,200 square feet in size. The eastern portion of the tract has been designed to meet the R3 zoning standard and be the buffer lots between the existing R5 zone and larger R2 zone lots to the east. In addition to the single-family lots, the tract design includes thirteen lettered lots including: one for open space, one for water quality treatment facilities, and eleven for public streets. Another design feature of the tract is a pedestrian walkway through the water quality treatment facility lot which gives pedestrians a direct route to access Ironwood Avenue and the adjacent school from the tract.

The project layout and design consistent with the adjacent existing and anticipated residential developments.

Variance

The Applicant has requested a variance in addition to the amended tentative tract map to allow for the construction of an over-height combination retaining wall and tract boundary wall along the eastern property line of Palm Middle School and the rear property lines of lots 1 through 14. The new lots will be higher than Palm Middle School.

The proposed wall will be a maximum of 21 feet tall comprising a 15 foot high retaining wall with a 6 foot high wall or fence on top and be approximately 950 feet in total length. Per Municipal Code Section 9.08.070 retaining walls in the rear yard may not exceed 6 feet and the combination of solid retaining and wall or fence may not exceed 8 feet solid, and the overall wall height may not exceed 12 feet with the addition of view fencing. The variance is to allow wall heights that exceed the maximum requirements of Municipal Code Section 9.08.070. Palm Middle School has provided a letter in support with the proposed wall heights as proposed by the amended tract map and variance.

When considering a variance request the Municipal Code Section 9.03.100 (Variances) establishes six findings that must be made when approving a variance. Those findings and justification for each is provided below.

1. That strict or literal interpretation and enforcement of the specified regulation would result in practical difficulty or unnecessary hardship not otherwise shared by others within the surrounding area or vicinity.

   FACT: The strict or literal interpretation and enforcement of the specified regulation would result in practical difficulty for the property owner. The proposed variance application will allow for the construction of a maximum 15 foot high retaining wall with a 6 foot high wall or fence on top with an overall height of 21 feet adjacent to Palm Middle School. Per Municipal Code Section 9.08.070 retaining walls in the rear yard may not exceed 6 feet and the combination of solid retaining and wall or fence may not exceed 8 feet solid, and the overall wall height may not exceed 12 feet with the addition of view fencing. The variance is to allow wall heights that exceed the maximum requirements of Municipal Code Section 9.08.070. Due to the following circumstances: 1) the existing grade change onsite which falls approximately 118 feet between its northern property line along Kalmia Avenue and its southern property line along Ironwood Avenue; 2) the proposed site is surrounded by existing development on all four sides with established grades that cannot be modified; and 3) all street rights-of-way within the development are required to comply with the Americans with Disabilities Act; and 4) the over-height retaining wall is required adjacent to Palm Middle School.

   Palm Middle School has provided a letter in support with the proposed wall heights as proposed by the variance.

2. That there are exceptional or extraordinary circumstances or conditions applicable to the property involved or to the intended use of the property which do not apply generally to other properties in the vicinity and under the same zoning classification.

   FACT: The subject property is unique to the other properties in the vicinity and under the same zoning classification because there are a combination of exceptional and extraordinary circumstances that result in the need for the proposed over-height retaining wall and tract boundary wall (approximately 21 feet in total height) adjacent to Palm Middle School. These circumstances include: 1) the existing grade change onsite which falls approximately 118 feet between its northern property line along

Kalmia Avenue and its southern property line along Ironwood Avenue; 2) the proposed site is surrounded by existing development on all four sides with established grades that cannot be modified; and 3) all street rights-of-way within the development are required to comply with the Americans with Disabilities Act.

3. That strict or literal interpretation and enforcement of the specified regulation would deprive the applicant of privileges enjoyed by the owners of other properties in the vicinity and under the same zoning classification.

   FACT: The strict or literal interpretation and enforcement of the specified regulation would deprive the applicant of privileges enjoyed by the owners of other properties in the vicinity. Strict interpretation of the code would result in the underutilization of the property due to existing physical constraints associated with on-site grades and existing development.

4. That the granting of the variance will not constitute a grant of special privilege inconsistent with the limitations on the other properties in the vicinity and under the same zoning classification.

   FACT: The granting of the variance will not constitute the granting of a special privilege as existing adjacent development and on-site slopes limit the ability to develop a portion of the project site without the inclusion of the proposed retaining wall. These physical constraints are unique to the project site.

5. That the granting of the variance will not be detrimental to public health, safety or welfare, or materially injurious to properties or improvements in the vicinity.

   FACT: The proposed Variance PEN19-0245 will not be detrimental to public health, safety or welfare or materially injurious to properties or improvements in the vicinity. Staff has evaluated the design and potential environmental impact of the proposed project. The project has been evaluated against criteria set forth in the California Environmental Quality Act (CEQA) Guidelines (Sections 15162 and 15164) and it has been determined that preparation of a subsequent Negative Declaration or an Addendum was not required since the proposed changes to the project were determined to be minor and that the project is consistent with the findings of the original Negative Declaration for this project that was approved by the Planning Commission March 23, 2006. Furthermore, the proposed combination retaining and 6 foot high wall will be designed in compliance with applicable building codes.

6. That the granting of a variance is consistent with the objectives and policies of the General Plan and the intent of Title 9.

   FACT: The proposed use would be in conformance with the existing surrounding residential uses. The location and design of the project will also be consistent with the other existing residential uses in the immediate vicinity.

Site and Surrounding Area

The project site is located on the northwest corner of Lasselle Street and Ironwood Avenue. The project site has a General Plan Land Use designation of Residential 5 (R5) and a Zoning District designation of Residential 5 (R5) District. The area within the immediate proximity of the subject site is zoned predominately for single-family residential development. The zoning surrounding the proposed project to the north, west and south is all zoned Residential 5 (R5) District and developed with a combination of single family homes, Palm Middle School, and an entitled single-family residential tract to the north. The zoning of the properties to the east are Residential 5 (R5) District and Residential 2 (R2) District and are developed with single family homes.

Access/Parking

Tentative Tract Map No. 33436 will have three main access points including: one from Lasselle Street, one from Kalmia Avenue, and one from Laurie Street. Each lot, when developed, will be required to meet the parking standards for a single-family residence, which requires a minimum two (2) car garage to meet the off-street parking requirements of the Municipal Code.

Design/Landscaping

The project is designed in accordance with the provisions of Chapter 9.03 Residential Districts, Section 9.16.130 Design Guidelines, and Section 9.14 Land Divisions of the City's Municipal Code. The project as designed and conditioned complies with all applicable City zoning and development regulations.

Through appropriate conditions of approval, the developer must create a homeowner's association (HOA) prior to recordation of the final map. The purpose of the HOA at a minimum will be to accept ownership and maintenance responsibility in perpetuity of water quality treatment facilities and open space.

REVIEW PROCESS

As required by the Municipal Code, the Project Review Staff Committee (PRSC) reviewed the proposed project. The applicant has worked with staff and modified the proposed plans to the satisfaction of all City Departments. Based on staff's review, and the recommended conditions of approval, staff believes that the project will be consistent with all applicable City development and design standards and specifications.

ENVIRONMENTAL

The project has been evaluated pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines Sections 15162 and 15164 and it has been determined that the proposed changes to the project are consistent with, and will not require revisions to or further analysis of, the approved Negative Declaration for Tentative Tract Map 33436; therefore, no subsequent environmental review is required.

NOTIFICATION

Public notice was sent to all property owners of record within 600' of the project on October 29, 2020. The public hearing notice for this project was posted on the project site on October 30, 2020, and published in the local newspaper on October 31, 2020.

REVIEW AGENCY COMMENTS

Staff has coordinated with outside agencies and where applicable which is part of the standard review process with these types of development applications. Throughout the review process, comments and proposed conditions of approval were provided in writing to the applicant.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission

1. **APPROVE** Resolution No. 2020-42, and thereby:

    a. **RECOGNIZE** that Amended Tentative Tract Map 33436 PEN19-0244 has been evaluated pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines Sections 15162 and 15164 and it has been determined that preparation of a subsequent Negative Declaration or an Addendum is not required since the proposed changes to the project were determined to be minor and that the project is consistent with the findings of the original Negative Declaration for this project that was approved by the Planning Commission March 23, 2006; and

    b. **APPROVE** Amended Tentative Tract Map 33436 PEN19-0244 subject to the attached Conditions of Approval included as Exhibit A.

2. **APPROVE** Resolution No. 2020-43, and thereby:

    a. **RECOGNIZE** that Variance PEN19-0244 has been evaluated against criteria set forth in the California Environmental Quality Act (CEQA) and CEQA Guidelines Sections 15162 and 15164 and it has been determined that preparation of a subsequent Negative Declaration or an Addendum was not required since the proposed changes to the project were determined to be minor and that the project is consistent with the findings of the original Negative Declaration for this project that was certified by the March 23, 2006; and

    b. **APPROVE** Variance PEN19-0245.

Prepared by:
Gabriel Diaz
Associate Planner

Approved by:
Patty Nevins
Planning Official

ATTACHMENTS

1. Resolution No. 2020-42 Amended Tentative Tract Map
2. Exhibit A to Resolution No. 2020-42 Conditions of Approval
3. Resolution No. 2020-43 Variance
4. Project Plans
5. Aerial Map
6. Zoning Map
7. Mailing Notice - 600 Foot
8. 600 Foot Radius Map
9. School District Letter

PLANNING COMMISSION RESOLUTION NO. 2020-42

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY APPROVING AMENDED TENTATIVE TRACT MAP 33436 (PEN19-0244), TO REDUCE THE NUMBER OF LOTS FROM 105 TO 104 AND MODIFY PROJECT GRADING, LOCATED AT THE NORTHWEST CORNER OF IRONWOOD AVENUE AND LASSELLE STREET (APNS: 474-200-014 AND 474-200-025)

WHEREAS, Nick Streeter of Adams Streeter Civil Engineers, Inc., has filed an application for the approval of an Amended Tentative Tract Map 33436 application PEN19-0244, a proposal to amend Tentative Tract Map 33436 to reduce the number of lots from 105 to 104 and modify grading on the project identified as assessor parcel numbers 474-200-014 and 474-200-025; and

WHEREAS, the application has been evaluated in accordance with established City of Moreno Valley (City) procedures, and with consideration of the General Plan, Municipal Code, and other applicable regulations; and

WHEREAS, upon completion of a thorough development review process the project was appropriately agendized and noticed for a public hearing before the Planning Commission of the City of Moreno Valley (Planning Commission); and

WHEREAS, on November 12, 2020, the Planning Commission determined that the project has been evaluated pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines Sections 15162 and 15164 and it has been determined that preparation of a subsequent Negative Declaration or an Addendum was not required since the proposed changes to the project were determined to be minor and that the project is consistent with the findings of the original Negative Declaration for this project that was approved by the Planning Commission on March 23, 2006; and

WHEREAS, on November 12, 2020, the Planning Commission conducted a public hearing to consider the application; and

WHEREAS, the public hearing notice for this project was published in the local newspaper on October 31, 2020, and sent to all property owners of record within 600 feet of the project site on October 29, 2020, and posted on the project site on October 30, 2020;

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

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, by the Planning Commission of the City of Moreno Valley as follows:

A. That the recitals set forth above are true and correct.

B. That based upon substantial evidence presented to the Planning Commission during the above-referenced public hearing conducted on November 12, 2020, including written and oral staff reports, and the record from the public hearing, the Planning Commission hereby finds as follows:

1. That the proposed land division is consistent with applicable general and specific plans and the zoning ordinance based on the following facts:

   FACTS: General Plan Objective 2.2 states that it is the intent of the City to provide a wide range of residential opportunities and dwelling types to meet the demands of present and future residents of all socioeconomic groups. The proposed project has a Residential land use designation that would allow for development of single family residences consistent with this objective.

   The project site is located on the northwest corner of Lasselle Street and Ironwood Avenue and has a General Plan Land Use and Zoning District designation of Residential 5 (R5) District, with the area within immediate proximity to the subject site zoned predominately for single-family residential development. The zoning surrounding the proposed project to the north, west and south is all zoned Residential 5 (R5) District, and to the east the zoning is Residential 5 (R5) District and Residential 2 (R2) District.

   The project is designed in accordance with the provisions of Chapter 9.03 “Residential Districts,” Chapter 9.16 “Design Guidelines,” and Chapter 9.14 “Land Divisions” of the City’s Municipal Code. The project as designed and conditioned would comply with all applicable zoning and other regulations.

   The project as designed and conditioned will achieve the objectives of the City’s General Plan in that the proposed project is consistent with the General Plan and does not conflict with the goals, objectives, policies, and programs established within the Plan.

2. That the design or improvement of the proposed land division is consistent with applicable general and specific plans based on the following facts;

   FACT: General Plan Objective 2.2 states that it is the intent of the City to provide a wide range of residential opportunities and dwelling types

to meet the demands of present and future residents of all socioeconomic groups. The proposed project has a residential land use designation that would allow for development of single family residences consistent with this objective.

The project as designed is consistent with City General Plan Policy 2.2.7, which states that the primary purpose of areas designated Residential 5 is to provide for single-family detached housing on standard sized suburban lots, with the maximum allowable density set at 5.0 dwelling units per acre. The project proposes a density of 3.96 dwelling units per acre which is consistent with the site's General Plan land use designation. Therefore, the subdivision as designed and conditioned is consistent with existing goals, objectives, policies and programs of the General Plan.

3. That the site of the proposed land division is physically suitable for the type of development based on the following facts;

   FACTS: The proposed tentative parcel map is designed and conditioned in accordance with the provisions of Chapter 9.03 "Residential Districts," and Chapter 9.16 "Design Guidelines" of the City's Municipal Code. As such, the project site is physically suitable for the proposed Amended Tentative Tract Map 33436.

4. That the site of the proposed land division is physically suitable for the proposed density of the development based on the following facts:

   FACTS: Amended Tentative Tract Map 33436 has an area of 26.24 net acres and is designed and conditioned in accordance with the provisions of the City's Municipal Code Chapter 9.14 "Land Divisions" as well as all other applicable sections of the Municipal Code. As such, the project site is physically suitable for the proposed density of the development.

5. That the design of the proposed land division or the proposed improvements are not likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat based on the following facts

   FACTS: The project has been evaluated against criteria set forth in the California Environmental Quality Act (CEQA) and Guidelines Sections 15162 and 15164, and it has been determined that preparation of a subsequent Negative Declaration or an Addendum was not required since the proposed changes to the project were determined to be minor and that the project is consistent with the findings of the original Negative Declaration for this project that was approved by the Planning

Commission on March 23, 2006; therefore, no subsequent environmental review is required. In light of the foregoing, Amended Tentative Tract Map 33436 will not cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat.

6. That the design of the proposed land division or type of improvements is not likely to cause serious public health problems based on the following facts

   FACT: As conditioned, the proposed amended tentative tract map would not cause serious public health problems since there are no known hazardous conditions associated with the property, the design of the land division or the type of improvements.

   The proposed amended tentative tract map as designed and conditioned will ensure acceptable levels of protection from natural and man-made hazards to life, health, and property and is therefore consistent with General Plan Goal 9.6.1. The project site is located within approximately 1.3 miles from Fire Station No. 2, which is consistent with General Plan Goal 9.6.2 which requires emergency services that are adequate to meet minor emergency and major catastrophic situations.

   The proposed amended tract map will result in a development that would be consistent with General Plan Objective 6.1 to 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 and General Plan Objective 6.2 to 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.

   The tentative tract map has been designed consistently with the City's Municipal Code Chapter 9.14 "Land Divisions" and meets all City requirements related to subdividing a property.

7. That the design of the land division or the type of improvements will not conflict with easements, acquired by the public at large, for access through or use of, property within the proposed subdivision based on the following facts

   FACTS: The amended tentative tract map has been designed to accommodate and not conflict with existing easements on the subject site including utility, sewer, and road easements.

8. That the proposed land division is not subject the Williamson Act pursuant to the California Land Conservation Act of 1965 based on the following facts:

   FACTS: The project site is not utilized for agricultural purposes and is not under Williamson Act Contract. Additionally, there are no existing surrounding agricultural use, or sites under Williamson Act contract within the City limits.

9. That the proposed land division and the associated design and improvements are consistent with applicable ordinances of the city.

   FACTS: The land division proposed by Tentative Tract Map 33436 is consistent with the City's Municipal Code Chapter 9.14 "Land Divisions" as well as the development standards established in Sections 9.03.040 "Residential site development standards." The land division as designed and conditioned is consistent with applicable ordinances of the city.

10. That the design of the land division provides, to the extent feasible, for future passive or natural heating and cooling opportunities in the subdivision based on the following facts:

    FACTS: The land division proposed by Tentative Tract Map 33436 is consistent with the City's Municipal Code Chapter 9.14 "Land Divisions." The subdivision as designed allows for future building orientation to be such that passive or natural heating and cooling opportunities can be achieved.

11. That the effect of the proposed land division on the 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 based on the following facts:

    FACT: The project as designed is consistent with City General Plan Policy 2.2.7, which states that the primary purpose of areas designated Residential 5 is to provide for single-family detached housing on standard sized suburban lots. The maximum allowable density under this designation is 5.0 dwelling units per acre. The project proposes a density of 3.96 dwelling units per acre which is consistent with the site's General Plan land use designation while providing additional housing which is needed both within the City of Moreno Valley and the region. Therefore, the subdivision as designed provides housing that is balance against public service needs consistent with existing goals, objectives, policies and programs of the General Plan.

C. FEES, DEDICATIONS, RESERVATIONS, AND OTHER EXACTIONS

1. FEES

Impact, mitigation and other fees are due and payable under 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 Moreno Valley Municipal Code or as so provided in 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 PEN19-0244, incorporated herein by reference, 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 Government Code Section 66020(a) and failure to follow this procedure in a timely fashion 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 RECOMMENDS** that the City Council:

1. **APPROVE** Amended Tentative Tract Map 33436, PEN19-0244 based on the findings contained in the resolution and subject to the conditions of approval included as Exhibit A.

APPROVED on this 12th day of November, 2020.

AYES:
NOES:
ABSTAIN:

_____
Patricia Korzec
Chair, Planning Commission

ATTEST:

_____
Patty Nevins, Planning Official

APPROVED AS TO FORM:

_____
Steve Quintanilla, City Attorney

ATTACHMENTS:
Exhibit A – Conditions of Approval

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
Tentative Tract Map (PEN19-0244)

EFFECTIVE DATE:
EXPIRATION DATE:

COMMUNITY DEVELOPMENT DEPARTMENT

Planning Division

1. A change or modification to the land use or the approved site plans may require a separate approval. Prior to any change or modification, the property owner shall contact the City of Moreno Valley Community Development Department to determine if a separate approval is required.

2. 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)

3. Unless specifically superseded herein, these conditions of approval do not replace or supersede the final conditions of approval for approved project application PA05-0052, P09-024, and PEN19-0075 or any related projects or plan checks.

4. The expiration date of this modification does not extend the expiration of any related project or activity.

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

6. The site shall be developed in accordance with the approved plans on file in the Community 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)

7. 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), require separate application and approval by the Planning Division. No signs are permitted in the public right of way. (MC 9.12)

8. 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

9. Prior to grading plan approval, Basin fencing shall include wrought iron fencing with pilasters

10. Prior to building final, 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 with documentation provided to the Planning Division.

11. Prior to issuance of building permits, final front and street side yard landscape and irrigation plans, and slope landscape plans and basin landscape plans, shall be approved.

12. This approval shall comply with all applicable requirements of the City of Moreno Valley Municipal Code.

13. 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)

14. Prior to building final, the developer/owner or developer's/owner's successor-in-interest shall pay all applicable impact fees, including but not limited to Transportation Uniform Mitigation fees (TUMF), and the City's adopted Development Impact Fees. (Ord)

15. A drought tolerant landscape palette shall be utilized throughout the tract in compliance with the City's Landscape Requirements. (9.17)

16. 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 and approved by the Planning Division. The plans shall be designed in accordance with the slope erosion plan as required by the City Engineer. 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)

17. Prior to issuance of building permit issuance, landscape plans (trees, shrubs and groundcover) for basins maintained by an HOA or other private entity shall be submitted to and approved by the Planning Division 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 (e.g. split face, color variation, pattern variation, or as approved by the Planning Official) 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.

18. Prior to issuance of a building permit, the developer/property owner or developer's successor-in-interest shall pay all applicable impact fees due at permit issuance, including but not limited to Multi-species Habitat Conservation Plan (MSHCP) mitigation fees. (Ord.)

19. Prior to final map recordation, or building permit issuance, subdivision phasing (including any proposed common open space or improvement phasing, if applicable), shall be subject to a separate Phasing Plan submittal for 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)

20. Prior to building final, all required and proposed fences and walls shall be constructed/installed per the approved plans on file in the Planning Division. (MC 9.080.070)

21. 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: The name and address of the development and the developer's name and address to include a 24-hour emergency phone number.

22. Prior to approval of any grading permits, plans for any security gate system shall be submitted to and approved by to the Planning Division.

23. Prior to approval of a precise grading plan, final front and street side yard landscape and irrigation plans shall be submitted to and approved by the Planning Division. The plans shall be prepared in accordance with the City's Municipal Code Landscape Requirements, and include required street trees.

24. Prior to building final, slope landscape and irrigation shall be installed, certified by the Landscape Architect with documentation provided to the Planning Division with an inspection performed and approved by the Planning Division. Landscaping on lots not yet having dwelling units shall be maintained by the developer weed and disease free. (MC 9.03.040)

25. Prior to recordation of the final subdivision map, the following documents shall be submitted to and approved by 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, conservation easements, guest parking, feeder trails, water quality basins, lighting, landscaping and common area use items such as general building maintenance (apartments, condominiums and townhomes) tot lot/public seating areas and other recreation facilities or buildings. 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:
a. The developer and homeowners association shall promote the use of native plants and trees and drought tolerant species.
b. 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.
c. Maintenance of any and all common facilities.
d. A conservation easement for lettered lots shall be recorded on the deed of the property and shown on the final map. Said easement shall include access restrictions prohibiting motorized vehicles from these areas.
e. Oleander plants or trees shall be prohibited on open space lots adjacent to multi-use trails.

26. Prior to grading plan approval, wall and fence plans shall be submitted to and approved by the Planning Division subject to the City's Municipal Code including the following:

a. Side and rear yard fences/walls (not adjacent to a right of way) shall be constructed of decorative block, poly-vinyl or wood.
b. A solid decorative (e.g. split face, color variation, pattern variation, or as approved by the Planning Official) block wall with pilasters and a cap is required along the perimeter of the tract adjacent to any right of way or reverse frontage

location and along any right of way within the interior of the tract (all corner lots).

c. A six (6) foot high combination wall with pilasters is required at top of slope along an open space area or adjacent to a park.

d. Decorative open iron or steel fencing with pilasters is required adjacent to open space areas and view lots. (View lots are defined as lots where there is more than 15 foot difference in pad elevation.)

e. Non-combustible fencing is required for all lots adjacent to all fuel modification zones, subject to the approval of the Fire Prevention Bureau.

27. The site has been approved for an Amended Tentative Tract Map 33436 with 104 residential lots, and a Variance application for the construction of a 15 foot high decorative retaining wall, with a 6 foot high decorative wall on top, for a maximum total combined wall height of 21 feet, on the western property line adjacent to Palm Middle School. A change or modification shall require separate approval.

Prior to Grading Permit

28. Prior to issuance of any grading permit, all Conditions of Approval shall be printed on the grading plans.

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

30. If potential historic, archaeological, Native American cultural resources or paleontological resources are uncovered during excavation or construction activities at the project site, work in the affected area must 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 immediately submitted to the Planning Division for consideration, and 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 during grading and other construction excavation, 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 notified within 5-days of the published finding to be given a reasonable opportunity 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).

31. 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. The pre-construction survey shall be submitted to the Planning Division prior to any disturbance of the site and/or grading permit issuance.

Building Division

32. Prior to submittal, all new development, including residential second units, are required to obtain a valid property address prior to permit application. Addresses can be obtained by contacting the Building Safety Division at 951.413.3350.

33. Contact the Building Safety Division for permit application submittal requirements.

34. Any construction within the city shall only be as follows: Monday through Friday seven a.m. to seven p.m(except for holidays which occur on weekdays), eight a.m. to four p.m.; weekends and holidays (as observed by the city and described in the Moreno Valley Municipal Code Chapter 2.55), unless written approval is first obtained from the Building Official or City Engineer.

35. Building plans submitted shall be signed and sealed by a California licensed design professional as required by the State Business and Professions Code.

36. The proposed development shall be subject to the payment of required development fees as required by the City's current Fee Ordinance at the time a building application is submitted or prior to the issuance of permits as determined by the City.

37. The proposed project will be subject to approval by the Eastern Municipal Water District and all applicable fees and charges shall be paid prior to permit issuance. Contact the water district at 951.928.3777 for specific details.

38. All new structures shall be designed in conformance to the latest design standards adopted by the State of California in the California Building Code, (CBC) Part 2, Title 24, California Code of Regulations including requirements for allowable area, occupancy separations, fire suppression systems, accessibility, etc.

39. The proposed project's occupancy shall be classified by the Building Official and must comply with exiting, occupancy separation(s) and minimum plumbing fixture requirements. The occupant load and occupancy classification shall be determined in accordance with the California Building Code.

40. The proposed residential project shall comply with The 2016 California Green Building Standards Code, Section 4.106.4, mandatory requirements for Electric Vehicle Charging Station (EVCS).

41. Prior to permit issuance, every applicant shall submit a properly completed Waste Management Plan (WMP), as a portion of the building or demolition permit process. (MC 8.80.030)

FIRE DEPARTMENT

Fire Prevention Bureau

42. All Fire Department access roads or driveways shall not exceed 12 percent grade. (CFC 503.2.7 and MVMC 8.36.060[G])

43. The Fire Department emergency vehicular access road shall be (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. The approved fire access road shall be in place during the time of construction. Temporary fire access roads shall be approved by the Fire Prevention Bureau. (CFC 501.4, and MV City Standard Engineering Plan 108d)

44. 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)

45. 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 501.4)

46. 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. (CFC 501.3)

47. 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 and MVLT 440A-0 through MVLT 440C-0)

48. Prior to issuance of building permits, plans specifying the required structural materials for building construction in high fire hazard severity zones shall be submitted to the Fire Prevention Bureau for approval. (CFC, 4905)

49. 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, 501.3) a - 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.

50. 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 effect at the time of building plan submittal.

51. The Fire Code Official is authorized to enforce the fire safety during construction requirements of Chapter 33. (CFC Chapter 33 & CBC Chapter 33)

52. Dead-end streets and/or fire apparatus access roads in excess of 150 feet in length shall be provided with an approved turnaround for fire apparatus.

53. 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)

54. Plans for private water mains supplying fire sprinkler systems and/or private fire hydrants shall be submitted to the Fire Prevention Bureau for approval. (CFC 105 and CFC 3312.1)

55. 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 said waterflow for 2 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)

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

57. 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)

58. 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. 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.

59. 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, MVMC 8.36.100[D])

60. Prior to issuance of Certificate of Occupancy or Building Final, all residential dwellings shall display street numbers in a prominent location on the street side of the residence in such a position that the numbers are easily visible to approaching emergency vehicles. The numbers shall be located consistently on each dwelling throughout the development. The numerals shall be no less than four (4) inches in height and shall be low voltage lighted fixtures. (CFC 505.1, MVMC 8.36.060[I])

PUBLIC WORKS DEPARTMENT

Land Development

61. Aggregate slurry, as defined in Section 203-5 of Standard Specifications for Public Works Construction, shall be required prior to 90% security reduction or the end of the one-year warranty period of the public streets as approved by the City Engineer. If slurry is required, a slurry mix design shall be submitted for review and approved by the City Engineer. The latex additive shall be Ultra Pave 70 (for anionic) or Ultra Pave 65 K (for cationic) or an approved equal per the geotechnical report. 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.

62. 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]

63. The final approved conditions of approval (COAs) issued and any applicable

Mitigation Measures by the Planning Division shall be photographically or electronically placed on mylar sheets and included in the Grading and Street Improvement plans.

64. The developer shall monitor, supervise and control all construction related 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 Land Development Division.
(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 during the grading operations.
Violation of any condition, restriction or prohibition set forth in these conditions shall subject the owner, applicant, developer or contractor(s) to remedy as noted in 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.

65. Drainage facilities (e.g., catch basins, water quality basins, etc.) with sump conditions shall be designed to convey the tributary 100-year storm flows. Secondary emergency escape shall also be provided.

66. 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. If unsuccessful, the Developer 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]

67. If improvements associated with this project are not initiated within two (2) years of the date of approval of the Public Improvement Agreement (PIA), the City Engineer may require that the engineer's estimate for improvements 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 PIA or issuance of a permit. [MC 9.14.210(B)(C)]

68. The developer shall protect downstream properties from damage caused by alteration of drainage patterns (i.e. concentration or diversion of flow, etc). 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]

69. 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.

70. The maintenance responsibility of the proposed storm drain line shall be clearly identified. Storm drain lines within private property will be privately maintained and those within public streets will be publicly maintained.

71. The proposed private storm drains within privately maintained Lots AA and BB shall connect to the proposed storm drain system within the right of way. A storm drain manhole shall be placed at the right-of-way line to mark the beginning of the publicly maintained portion of the storm drain.

72. For single family residential subdivisions, all lots shall drain to the street at a minimum surface grade of 2.0% and on-site drainage shall be conveyed onto the street with subsurface drains at a minimum grade of 0.5% per current City Standards MVSI-152 and MVSI-153A. No cross-lot or over the sidewalk drainage shall be allowed.

73. This project shall submit civil engineering design plans, reports and/or documents (prepared by a registered/licensed civil engineer) for review and approval by the City Engineer per the current submittal requirements, prior to the indicated threshold or as required by the City Engineer. The submittal consists of, but is not limited to, the following:

    a. Final Map (recordation prior to building permit issuance);
    b. Rough grading w/ erosion control plan (prior to grading permit issuance);
    c. Precise grading w/ erosion control plan (prior to building permit issuance);
    d. Public Improvement Plans (Street/Storm Drain with Signing & Striping, RCFC&WCD Storm Drain, EMWD Sewer & Water, Traffic Signal, etc. prior to final map approval and encroachment permit issuance);
    e. Final drainage study (prior to grading plan approval);
    f. Final WQMP (prior to grading plan approval);
    g. Offers of Dedication (prior to improvement plan approval);
    h. Vacation of Public Easements (prior to improvement plan approval);
    i.. As-Built revision for all plans (prior to occupancy release);

74. Water quality best management practices (BMPs) designed to meet Water Quality

Management Plan (WQMP) requirements for single-family residential development shall not be used as a construction BMP. Water quality BMPs shall be maintained for the entire duration of the project construction and be used to treat runoff from those developed portions of the project. Water quality BMPs shall be protected from upstream construction related runoff by having proper best management practices in place and maintained. Water quality BMPs shall be graded per the approved design plans and once landscaping and irrigation has been installed, it and its maintenance shall be turned over to an established Homeowner's Association (HOA). The Homeowner's Association shall enter into an agreement with the City for basin maintenance.

Prior to Grading Plan Approval

75. Resolution of all drainage issues shall be as approved by the City Engineer.

76. A final detailed drainage study (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer. The study shall include, but not be limited to: existing and proposed hydrologic conditions as well as hydraulic calculations for all drainage control devices and storm drain lines. The study shall analyze 1, 3, 6 and 24-hour duration events for the 2, 5, 10 and 100-year storm events [MC 9.14.110(A.1)]. A digital (pdf) copy of the approved drainage study shall be submitted to the Land Development Division.

77. 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 spillways and overflow riser pipes within basins and secondary catch basins at sump locations.

78. A final project-specific Water Quality Management Plan (WQMP) shall be submitted for review and approved by the City Engineer, which:

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

d. 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. A digital (pdf) copy of the approved final project-specific Water Quality Management Plan (WQMP) shall be submitted to the Land Development Division.

79. The final project-specific Water Quality Management Plan (WQMP) shall be consistent with the approved P-WQMP, as well as in full conformance with the document: "Water Quality Management Plan - A Guidance Document for the Santa Ana Region of Riverside County" dated October 22, 2012. The F-WQMP shall be submitted and approved prior to application for and issuance of grading 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.

    a. The Applicant has proposed to incorporate the use of a bioretention basin. Final design and sizing details of all BMPs must be provided in the first submittal of the F-WQMP. 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 document.

    b. The Applicant shall substantiate the applicable Hydrologic Condition of Concerns (HCOC) in Section F of the F-WQMP.

    c. All proposed LID BMP's shall be designed in accordance with the RCFC&WCD's Design Handbook for Low Impact Development Best Management Practices, dated September 2011.

    d. The proposed LID BMP's as identified in the project-specific P-WQMP shall be incorporated into the Final WQMP.

    e. The NPDES notes per City Standard Drawing No. MVFE-350-0 shall be included in the grading plans.

    f. Post-construction treatment control BMPs, once placed into operation for post-construction water quality control, shall not be used to treat runoff from construction sites or unstabilized areas of the site.

80. 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. All improvement plans are substantially complete and appropriate clearance letters are provided to the City.

    d. A soils/geotechnical report (addressing the soil's stability and geological conditions of the site) shall be submitted to the Land Development Division for review. A digital (pdf) copy of the soils/geotechnical report shall be submitted to the Land Development Division.

81. Grading plans (prepared by a registered/licensed civil engineer) shall be submitted

for review and approved by the City Engineer per the current submittal requirements.

82. The developer shall select Low Impact Development (LID) Best Management Practices (BMPs) designed per the latest version of the Water Quality Management Plan (WQMP) - a guidance document for the Santa Ana region of Riverside County.

83. The developer shall submit recorded slope easements from adjacent property owners in all areas where grading resulting in slopes is proposed to take place outside of the project boundaries. For all other offsite grading, written permission from adjacent property owners shall be submitted.

84. The developer shall pay all remaining plan check fees.

85. Landscape & Irrigation plans (prepared by a registered/licensed landscape architect) for water quality BMPs shall be submitted for review and approved by the City Engineer per the current submittal requirements, if applicable.

86. A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared in conformance with the State's current 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.

Prior to Grading Permit

87. A receipt showing payment of the Area Drainage Plan (ADP) fee to Riverside County Flood Control and Water Conservation District shall be submitted. [MC 9.14.100(O)]

88. If the developer chooses to construct the project in phases, a Construction Phasing Plan for the construction of on-site public or private improvements shall be submitted for review and approved by the City Engineer.

89. Prior to the payment of the Development Impact Fee (DIF), the developer may enter into a DIF Improvement Credit Agreement to secure credit for the construction of applicable improvements. If the developer fails to complete this agreement prior to the timing specified above, credits may not be given. The developer shall pay current DIF fees adopted by the City Council. [Ord. 695 § 1.1 (part), 2005] [MC 3.38.030, 040, 050]

90. A digital (pdf) copy of all approved grading plans shall be submitted to the Land Development Division.

91. Security, in the form of a cash deposit (preferable), bond or letter of credit shall be

submitted as a guarantee of the implementation and maintenance of erosion control measures. At least twenty-five (25) percent of the required security shall be in the form of a cash deposit with the City. [MC 8.21.160(H)]

92. Security, in the form of a cash deposit (preferable), bond or letter of credit shall be submitted as a guarantee of the completion of the grading operations for the project. [MC 8.21.070]

93. The developer shall pay all applicable inspection fees.

Prior to Map Approval

94. All proposed street names shall be submitted for review and approved by the City Engineer, if applicable. [MC 9.14.090(E.2.k)]

95. A copy of the Covenants, Conditions and Restrictions (CC&R's) shall be submitted for review and approved by the City Engineer. The CC&R's shall include, but not be limited to, access easements, reciprocal access, private and/or public utility easements as may be relevant to the project. In addition, for single-family residential development, bylaws and articles of incorporation shall also be included as part of the maintenance agreement for any water quality BMPs.

96. The developer shall enter into a Cooperative Agreement with the City and Riverside County Flood Control and Water Conservation District establishing the terms and conditions covering the inspection, operation and maintenance of Master Drainage Plan facilities required to be constructed as part of the project.

97. After recordation, a digital (pdf) copy of the recorded map shall be submitted to the Land Development Division.

98. Resolution of all drainage issues shall be as approved by the City Engineer.

99. 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 public 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. If the project does not involve the subdivision of land and it is necessary to dedicate right-of-way/easements, the developer shall make the appropriate offer of dedication by separate instrument. In either case, the City Engineer may require the dedication and construction of necessary utility, street or other improvements beyond the project boundary, if the improvements are needed for circulation, parking, access, or for the welfare or safety of the public. This approval must be obtained prior to the Developer submitting a Phasing Plan to the California Bureau of Real Estate. [MC 9.14.080(B)(C), GC 66412 & 66462.5]

100. Maps (prepared by a registered civil engineer and/or licensed surveyor) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

101. 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, this project is subject to the following requirements:

a. Establish a Home Owners Association (HOA) to finance the maintenance of the "Water Quality BMPs". Any lots which are identified as "Water Quality BMPs" shall be owned in fee by the HOA.

b. Dedicate a maintenance easement to the City of Moreno Valley.

c. Execute a maintenance agreement between the City of Moreno Valley and the HOA, which shall be approved by City Council.

d. Provide a certificate of insurance per the terms of the maintenance agreement.

e. 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 Residential NPDES Regulatory Rate Schedule and pay all associated costs with the ballot process, or

ii. Establish an endowment to cover future maintenance costs for the Residential NPDES Regulatory Rate Schedule.

f. Notify the Special Districts Division of the intent to record the final map 90 days prior to City Council action authorizing recordation of the final map and the financial option selected. The final option selected shall be in place prior to the issuance of certificate of occupancy. [California Government Code & Municipal Code]

102. The developer shall guarantee the completion of all related improvements required for this project by executing a Public Improvement Agreement (PIA) with the City and posting the required security. [MC 9.14.220]

103. All public improvement plans required for this project shall be approved by the City Engineer in order to execute the Public Improvement Agreement (PIA).

104. The developer shall comply with the requirements of the City Engineer based on recommendations of the Riverside County Flood Control District regarding the construction of County Master Plan Facilities.

105. All street dedications shall be free of all encumbrances, 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.

Prior to Improvement Plan Approval

106. 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, all access ramps in that intersection shall be retrofitted to comply with current ADA requirements, unless otherwise approved by the City Engineer.

107. The developer shall submit clearances from all applicable agencies, and pay all applicable plan check fees.

108. The street improvement plans shall comply with current City policies, plans and applicable City standards (i.e. MVSI-160 series, etc.) throughout this project.

109. The design plan and profile shall be based upon a centerline, extending beyond the project boundaries a minimum distance of 300 feet at a grade and alignment approved by the City Engineer.

110. Drainage facilities (i.e. catch basins, etc.) with sump conditions shall be designed to convey the tributary 100-year storm flows. Secondary emergency escape shall also be provided.

111. The hydrology study shall be designed to accept and properly convey all off-site drainage flowing onto or through the site. In the event that the City Engineer permits the use of streets for drainage purposes, the provisions of current City standards shall 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 City Engineer. [MC 9.14.110 A.2]

112. All public improvement plans (prepared by a licensed/registered civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

113. Any missing or deficient existing improvements along the project frontage within Ironwood Avenue, Lasselle Street, Kalmia Avenue and Laurie Street shall be constructed or secured for construction. The City Engineer may require the ultimate structural section for pavement to half-street width plus 18 feet or provide core test results confirming that existing pavement section is per current City Standards; additional signing & striping to accommodate increased traffic imposed by the development, etc.

114. 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 (3) years old and recently slurry sealed streets less than one (1) year old. Pavement cuts may be allowed for emergency repairs or as specifically approved in writing by the City Engineer. Special requirements shall be imposed for repaving, limits to be determined by the City Engineer.

115. All dry and wet utilities shall be shown on the plans and any crossings shall be potholed to determine actual location and elevation. Any conflicts shall be identified and addressed on the plans. The pothole survey data shall be submitted to Land Development with the public improvement plans for reference purposes only. The developer is responsible to coordinate with all affected utility companies and bear all costs of any utility relocation.

Prior to Encroachment Permit

116. A digital (pdf) copy of all approved improvement plans shall be submitted to the Land Development Division.

117. All applicable inspection fees shall be paid.

118. 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 (3) years old and recently slurry sealed streets less than one (1) year old. Pavement cuts may be allowed for emergency repairs or as specifically approved in writing by the City Engineer. Special requirements shall be imposed for repaving, limits to be determined by the City Engineer.

119. Any work performed within public right-of-way requires an encroachment permit.

Prior to Building Permit

120. An engineered-fill certification, rough grade certification and compaction report shall be submitted for review and approved by the City Engineer. A digital (pdf) copy of the approved compaction report shall be submitted to the Land Development Division. All pads shall meet pad elevations per approved grading plans as noted by the setting of "blue-top" markers installed by a registered land surveyor or licensed civil engineer.

121. For all subdivision projects, the map shall be recorded (excluding model homes). [MC 9.14.190]

122. A walk through with a Land Development Inspector shall be scheduled to inspect existing improvements within public right of way along the project frontage. Any

missing, damaged or substandard improvements including ADA access ramps that do not meet current City standards shall be required to be installed, replaced and/or repaired. 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.

123. Certification to the line, grade, flow test and system invert elevations for the water quality control BMPs shall be submitted for review and approved by the City Engineer (excluding models homes).

Prior to Occupancy

124. All outstanding fees shall be paid.

125. All required as-built plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

126. The final/precise grade certification shall be submitted for review and approved by the City Engineer.

127. The developer shall complete all public improvements in conformance with current City standards, except as noted in the Special Conditions, including but not limited to the following:

a. Street improvements including, but not limited to: pavement, base, curb and/or gutter, cross gutters, spandrel, sidewalks, drive approaches, pedestrian ramps, street lights (<MVU: SL-2 / SCE: LS-2>), signing, striping, under sidewalk drains, 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, open channels, catch basins and local depressions.

c. City-owned utilities.

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

e. Under grounding of all existing and proposed utilities adjacent to and on-site. [MC 9.14.130]

f. Relocation of overhead electrical utility lines including, but not limited to: electrical, cable and telephone.

128. For residential subdivisions, punch list work for improvements and capping of streets in that phase shall be completed and approved for acceptance by the City Engineer prior to the last 20% or last 5 units (whichever is greater), unless otherwise determined by the City Engineer.

129. 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 for review and approved by the City Engineer.

130. The Developer shall comply with the following water quality related items:

a. Notify the Land Development Division prior to construction and installation of all structural BMPs so that an inspection can be performed.

b. Demonstrate that all structural BMPs described in the approved final project-specific WQMP have been constructed and installed in conformance with the approved plans and specifications;

c. Demonstrate that Developer is prepared to implement all non-structural BMPs described in the approved final project-specific WQMP; and

d. Demonstrate that an adequate number of copies of the approved final project-specific WQMP are available for future owners/occupants.

e. Clean and repair the water quality BMP's, including re-grading to approved civil drawing if necessary.

f. Obtain approval and complete installation of the irrigation and landscaping.

Special Conditions

131. Prior to grading plan approval, the developer shall obtain written approval from Moreno Valley Unified School District to construct that portion of Laurie Street and related slope outside of the project boundary.

132. Prior to final map or grading plan approval, whichever occurs first, the developer shall acquire the necessary right of way and slope easement from Moreno Valley Unified School district for the construction of Laurie Street.

133. Prior to grading plan approval, the plan shall show the grading limits for Lots 50 through 55 as determined by the wetlands delineation study.

134. Prior to final map approval, Lots AA and BB shall be designated as lettered lots to be retained by the landowner, successors, and assigns. Lot AA shall ultimately be maintained by a Homeowners Association. Lot BB will be comprised of an enclosed water quality bioretention basin to be maintained by the City per Maintenance Agreement, landscaping & irrigation area to be maintained by the City per landscape easement on the final map, and a public sidewalk to be maintained by the City per sidewalk easement on the final map.

135. Prior to final map approval, the developer shall dedicate 33 feet of right of way on Kalmia Avenue along the north tract boundary; 33 feet of right of way on Lasselle Street along the east tract boundary; and 14 feet of additional right of way on Ironwood Avenue along the south tract boundary.

136. Prior to final map recordation, the developer shall enter into a public improvement agreement with the City and secure public improvements by posting security for the public improvements listed below. The improvements shall be constructed at the timing specified in a Construction Phasing Plan, to be reviewed and approved by the Land Development Division. If a Construction Phasing Plan is not completed, then public improvements shall be constructed at a timing determined by the City Engineer.

a. Ironwood Avenue (88'RW/64'CC) shall be constructed to half-width plus 18 feet along tract frontage per City Standard No. MVSI-105A-1. Less than the required width may be constructed as approved by the City Engineer upon review of pavement core results. If the existing pavement meets current City structural section standards or is otherwise determined to be acceptable by the City Engineer, the developer may construct less than the required pavement width. Improvements shall consist of, but not be limited to, pavement, base, curb, gutter, sidewalk, streetlights, bus turnout, signing, striping, storm drain, dry and wet utilities, undergrounding of overhead utilities, removal of cross gutters and spandrels, and additional catch basins with storm drain laterals, if needed, due to the removal of the cross gutters and spandrels.

b. Lasselle Street (66'RW/44'CC) shall be constructed to half-width plus 14 feet along tract frontage per City Standard No. MVSI-106B-0. Improvements shall consist of but not be limited to, pavement, base, curb, gutter, sidewalk, streetlights, signing, striping, catch basins, storm drain, dry and wet utilities, and undergrounding of overhead utilities.

c. Kalmia Avenue (66'RW/44'CC) shall be constructed to half-width plus 14 feet along tract frontage per City Standard No. MVSI-106B-0. Improvements shall consist of, but not be limited to, pavement, base, curb, gutter, sidewalk, streetlights, signing, striping, dry and wet utilities, and undergrounding of overhead utilities.

d. Rockingham Avenue (Lot A) south of Mavmule Avenue (Lot B), Maple Court (Lot D), Melnik Court Lot E), and Daisy Court (Lot H), Streets A (56'RW/40'CC) shall be constructed full-width per City Standard No. MVSI-107A-0. Improvements shall consist of, but not be limited to, pavement, base, curb, gutter, sidewalk, streetlights, catch basins, storm drains, dry and wet utilities.

e. Rockingham Avenue (Lot A) north of Mavmule (Lot B), Snowdrop Circle (Lot F), Tigertail Circle (Lot G), Mavmule Avenue (Lot B), and Laurie Street (Lot C)

(60'RW/36'CC) shall be constructed full- width per City Standard No. MVSI-107A-0 (modified). Improvements shall consist of, but not be limited to, pavement, base, curb, gutter, sidewalk, streetlights, catch basins, storm drains, dry and wet utilities.

137. Prior to final map recordation, the developer shall also include drainage improvements in the public improvement agreement with the City and secure public improvements by posting security for the public improvements listed below.

a. Onsite drainage Improvements shall consist of catch basins on the north side of Laurie Street, west of Rockingham Avenue to capture flows from the north half of the subdivision, and a storm drain in Rockingham Avenue to a proposed water quality basin. The south half of the subdivision will surface flow into proposed catch basins located at the cul-de-sac o Rockinghame Aveneue, on the east side of Rockinham Avenue north of Mavmule Street, and on the east and west sides of Rockinham Avenue north of Laurie Street. Also, a proposed storm drain inlet with headwall will be required where natural drainage course runoff is to be intercepted within Lot AA. The intercepted natural drainage course flows will be routed to the proposed main storm drain line within Lasselle Street.

b. Offsite drainage Improvements shall consist of: a sump catch basin on the south side of Kalmia Avenue, east of Lasselle Street; a catch basin on the west side of Lasselle Street, north of Kalmia Avenue; a catch basin on the west side of Lasselle Street, south of Kalmia Avenue; two catch basins, side by side, on the west side of Lasselle Street, south of Lot AA; a catch basin on the west side of Lasselle Street, north of Ironwood Avenue; and catch basin on the east side of Lasselle Street, south of Chateau Court, removal of the cross gutters on Ironwood Avenue at Lasselle Street and catch basins on the north and south side of Ironwood Avenue east of Lasselle Street. All catch basins shall be constructed at the ultimate street width location which may involve curb tapers.

c. Storm drain Line Q-3 in the Sunnymead Master Drainage Plan, shall be constructed within Kalmia Avenue from the proposed catch basin on the south side of Kalmia Avenue to Lasselle Street, within Lasselle Street to Ironwood Avenue, and then west within Ironwood Avenue and connect to the existing portion of Line Q-3 in Ironwood Avenue. Storm drain laterals from the proposed catch basins to the main storm drain line are required. A storm drain lateral from an existing drain inlet on the east side of Lasselle Street, south of Kalmia Avenue, to the main storm drain line will be required. The storm drain sizes shown on the tentative tract map are preliminary and could change during final engineering.

138. Concurrent with the installation of a traffic signal at the intersection of Ironwood Avenue and Lasselle Street, if one is required by the Transportation Division, the accessible ramps at the intersection of shall be reconstructed per City Standard No. MVSI-114A-2 to meet current ADA requirements.

Special Districts Division

139. NEW STREET LIGHT INSTALLATION FEES. Prior to the issuance of the first building permit for this project, the Developer shall pay New Street Light Installation Fees for all applicable Residential and Arterial Street Lights required for this development. Payment shall be made to the City of Moreno Valley and collected by the Land Development Division. Fees are 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 adopted by City Council. The Developer shall provide a copy of the receipt to the Special Districts Division (specialdistricts@moval.org). Any change in the project which may increase the number of street lights to be installed will require payment of additional Advanced Energy fees at the then current fee. Questions may be directed to the Special Districts Division at 951.413.3480 or specialdistricts@moval.org.

140. Parkway, open space, and/or median landscaping specified in the project's Conditions of Approval shall be constructed in compliance with the City of Moreno Valley Public Works Design Guidelines and completed prior to the issuance of 25% (or 26) of the dwelling permits for this tract or 12 months from the issuance of the first dwelling permit, whichever comes first. In cases where a phasing plan is submitted, the actual percentage of dwelling permits issued prior to the completion of the landscaping shall be subject to the review of the construction phasing plan.

141. For those areas to be maintained by the City and prior to the issuance of the first Building Permit, Planning Division (Community Development Department), Special Districts Division (the Public Works Department) and Transportation Division (the Public Works Department) shall review and approve the final median, parkway, slope, and/or open space landscape/irrigation plans as designated on the tentative map or in these Conditions of Approval prior to the issuance of the first Building Permit.

142. 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 commencing from the time all items of work have been completed to the satisfaction of Special Districts staff as per the City of Moreno Valley Public Works Department Landscape Design Guidelines, or until such time as the District accepts maintenance responsibilities.

143. Parkway, median, slope and/or open space landscape areas maintained as part of the City of Moreno Valley Community Facilities District 2014-01 shall be required to have independent utility systems, including but not limited to water, electric, and telephone services. An independent irrigation controller and pedestal will also be required. Combining utility systems with existing or future landscape areas not

associated with the City of Moreno Valley Community Facilities District (CFD) landscaping will not be permitted.

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

145. Plans for parkway, median, slope, and/or open space landscape areas designated in the project's Conditions of Approval for incorporation into a City Coordinated landscape maintenance program, shall be prepared and submitted in accordance with the City of Moreno Valley Public Works Department Landscape Design Guidelines. The guidelines are available on the City's website at www.moval.org/sd or from the Special Districts Division (951.413.3480 or specialdistricts@moval.org).

146. The ongoing maintenance of any landscaping required to be installed behind the curb shall be the responsibility of the property owner.

147. In the event the City of Moreno Valley determines that funds authorized by any Proposition 218 mail ballot proceeding are insufficient to meet the costs for parkway, slope, and/or open space maintenance and utility charges, the City shall have the right, at its option, to terminate the grant of any or all parkway, slope, and/or open space maintenance easements. This power of termination, should it be exercised, shall be exercised in the manner provided by law to quit claim and abandon the property so conveyed to the District, and to revert to the Developer or the Developer's successors in interest, all rights, title, and interest in said parkway, slope, and/or open space areas, including but not limited to responsibility for perpetual maintenance of said areas.

148. Plan check fees for review of parkway/median landscape plans for improvements that shall be maintained by the City of Moreno Valley are due upon the first plan submittal. (MC 3.32.040)

149. Any damage to existing landscape areas maintained by the City of Moreno Valley due to project construction shall be repaired/replaced by the Developer, or Developer's successors in interest, at no cost to the City of Moreno Valley.

150. MAJOR INFRASTRUCTURE FINANCING DISTRICT. This project has been identified to potentially be included in the formation of a special financing district for the construction and maintenance of major infrastructure improvements which may include but are not limited to thoroughfares, bridges, and certain flood control improvements. The property owner(s) shall participate in such district and pay any special tax, assessment, or fee levied upon the project property for such district. At the time of the public hearing to consider formation of or annexation into the district, the qualified elector(s) will not protest the formation or annexation, but will retain the

right to object to any eventual tax/assessment/fee that is not equitable should the financial burden of the tax/assessment/fee not be reasonably proportionate to the benefit the affected property obtains from the improvements to be installed and/or maintained. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting an application for the first building permit to determine whether the development will be subjected to this condition. If subject to the condition, the special election requires a minimum 90-day process in compliance with the provisions of Article 13C of the California Constitution.

151. Street Light Authorization forms for all street lights that are conditioned to be installed as part of this project must be submitted to the Special Districts Division for approval, prior to street light installation. The Street Light Authorization form can be obtained from the utility company providing electric service to the project, either Moreno Valley Utility or Southern California Edison. For questions, contact the Special Districts Division at 951.413.3480 or specialdistricts@moval.org.

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

153. This project is conditioned to provide a funding source for the following special financing program(s):

a. Street Lighting Services for capital improvements, energy charges, and maintenance.

b. Landscape Maintenance Services for parkway, open space, and/or median landscaping on Ironwood Ave. and/or Lasselle St.

The Developer's responsibility is to provide a funding source for the capital improvements and the continued maintenance of the landscaped area. The Developer shall satisfy this condition with one of the options below.

i. Participate in a special election (mail ballot proceeding) and pay all associated costs of the special election and formation, 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

ii. Establish a Property Owner's Association (POA) or Home Owner's Association (HOA) which will be responsible for any and all operation and

maintenance costs.

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option prior to City Council action authorizing recordation of the final map for the development. The option for participating in a special election requires approximately 90 days to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution for conducting a special election.

The financial option selected shall be in place prior to the issuance of the first building permit for this project.

154. This project has been conditioned to provide a funding source for the continued maintenance, enhancement, and/or retrofit of parks, open spaces, linear parks, and/or trail systems. The Developer shall satisfy this condition with one of the options below.

a. Participate in a special election for annexation into Community Facilities District No. 1 or other district and pay all associated costs of the special election process and formation, if any; or

b. Establish an endowment fund to cover future maintenance costs for new neighborhood parks.

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option prior to City Council action authorizing recordation of the final map for the development. A minimum of 90 days is needed to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution for conducting a special election.

Annexation to CFD No. 1 shall be completed or proof of payment to establish the endowment fund shall be provided prior to the issuance of the first building permit for this project.

155. Easements for reverse frontage parkway and slope landscape areas abutting Ironwood Ave. shall be 6 ft. or to top of parkway facing slope or to face of perimeter tract wall, whichever is greater. Easements shall be dedicated to the City of Moreno Valley for landscape maintenance purposes, and shall be depicted on the final map, and an offer of their dedication made thereon.

156. This project has been identified to be included in the formation of a Community Facilities District 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 property owner 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 the Special Districts Division at 951.413.3480 or specialdistricts@moval.org of its intent to record the final map for the development 90 days prior to City Council action authorizing recordation of the map. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution. (California Government Code Section 53313 et. seq.)

157. Residential (R) If Land Development, a Division of the Public Works Department, requires this project to supply a funding source necessary to provide for, but not limited to, stormwater utilities services for the required continuous operation, maintenance, monitoring, systems evaluation and enhancements of on-site facilities and performing annual inspections of the affected areas to ensure compliance with state mandated storm water regulations, a funding source needs to be established. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option for the National Pollution Discharge Elimination System (NPDES) program (see Land Development's related condition). Participating in a special election the process requires a 90 day period prior to City Council action authorizing recordation of the final map for the development and to participate in a special election process. This allows adequate time to be in compliance with the provisions of Article 13D of the California Constitution. California Health and Safety Code Sections 5473 through 5473.8 (Ord. 708 Section 3.1, 2006) & City of Moreno Valley Municipal Code Title 3, Section 3.50.050.)

158. Landscape and irrigation plans for parkway, median, slope, and/or open space landscape areas designated to be maintained by the City 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.

159. Prior to the recordation of the final map, the Developer shall provide all necessary documents to convey to the City the required easements for parkway and/or slope maintenance as specified on the tentative map or in these Conditions of Approval.

160. This project is conditioned to provide a funding source for the operation and maintenance of public improvements and/or services associated with new development in that territory. The Developer shall satisfy this condition with one of the options below.

a. Participate in a special election for maintenance/services and pay all associated costs of the election process and formation, if any. Financing may be structured through a Community Facilities District, Landscape and Lighting Maintenance District, or other financing structure as determined by the City; or

b. Establish an endowment fund to cover the future maintenance and/or service costs.

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option prior to City Council action authorizing recordation of the final map for the development. A minimum of 90 days is needed to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution for conducting a special election.

The financial option selected shall be in place prior to the issuance of the first building permit for the project.

Transportation Engineering Division

161. Conditions of approval may be modified or added if a phasing plan is submitted for this development.

162. Ironwood Avenue is classified as a Minor Arterial (88'RW/64'CC) per City Standard Plan No. MVSI-105A-1. Any modifications or improvements undertaken by this project shall be consistent with the City's Standards for this facility.

163. Lasselle Street is classified as a Collector Street (66'RW/44'CC) per City Standard Plan No. MVSI-106B-0.Any modifications or improvements undertaken by this project shall be consistent with the City's Standards for this facility.

164. Kalmia Avenue is classified as a Collector (66'RW/44'CC) per City Standard Plan No. MVSI-106B-0. Any modifications or improvements undertaken by this project shall be consistent with the City's Standards for this facility.

165. During construction activity, developer is responsible for regularly scheduled street sweeping per approved street sweeping schedule. Failure
to provide regularly scheduled street sweeping during construction activity at the approved times shall result in re inspection fees (amounts to
be determined by City Engineer) and/or project suspension until street sweeping is provided.

166. Communication conduits may be required along Ironwood Avenue project frontage per City Standard Plan No. MVSI-186-0.

167. Prior to final approval of any landscaping or monument sign plans, the project plans shall demonstrate that sight distance at the project driveways conforms to City Standard Plan No. MVSI-164A, B, C-0.

168. 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.

169. Prior to the commencement of construction activity, construction traffic control plans prepared by a Registered Civil or Traffic Engineer may be required for plan approval or as required by the City Traffic Engineer.

170. Prior to issuance of building permits, the applicant shall investigate means to implement traffic calming features on Street "A" to the satisfaction of the City Traffic Engineer. The agreed-to traffic calming plan shall be designed and constructed together with the street improvement and signing/striping plans.

171. Prior to the final approval of the street improvement plans, a traffic signal plan shall be prepared for the intersection of Lasselle Street and Ironwood Avenue. Traffic signal plan shall be prepared per the latest edition of the California Manual on Uniform Traffic Control Devices (CAMUTCD) and current City of Moreno Valley Standard Plans by a qualified registered civil engineer.

172. Prior to final inspection, a bus turnout shall be installed for westbound traffic and shall be located on the north side of Ironwood Avenue, west of Lasselle Street. Bus turnout construction shall be in accordance with approved street plans.

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

174. Prior to final inspection, a traffic signal at Lasselle Street and Ironwood Avenue shall be installed and be fully operational per the approved plans.

PARKS & COMMUNITY SERVICES DEPARTMENT

175. This project is subject to current Quimby Fees.

PLANNING COMMISSION RESOLUTION NO. 2020-43

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY APPROVING PEN19-0245, A VARIANCE TO ALLOW FOR A MAXIMUM 15 FOOT HIGH RETAINING WALL WITH A 6 FOOT HIGH WALL OR FENCE ON TOP WITH AN OVERALL HEIGHT OF 21 FEET ADJACENT TO PALM MIDDLE SCHOOL AND LOCATED WITHIN TENTATIVE TRACT MAP 33436 AT THE NORTHWEST CORNER OF IRONWOOD AVENUE AND LASSELLE STREET (APNs: 474-200-014 AND 474-200-025)

WHEREAS, the applicant, Nick Streeter of Adams Streeter Civil Engineers, Inc., has filed a Variance application PEN19-0245, as described in the title of this Resolution; and

WHEREAS, the application has been evaluated in accordance with established City of Moreno Valley (City) procedures, and with consideration of the General Plan, Municipal Code, and other applicable regulations; and

WHEREAS, upon completion of a thorough development review process the project was appropriately agendized and noticed for a public hearing before the Planning Commission of the City of Moreno Valley (Planning Commission); and

WHEREAS, on November 12, 2020, the Planning Commission of the City of Moreno Valley determined that the project has been evaluated against criteria set forth in the California Environmental Quality Act (CEQA) Guidelines (Sections 15162 and 15164) and it has been determined that preparation of a subsequent Negative Declaration or an Addendum was not required since the proposed changes to the project were determined to be minor and that the project is consistent with the findings of the original Negative Declaration for this project that was certified by the Planning Commission March 23, 2006; and

WHEREAS, on November 12, 2020, the Planning Commission of the City of Moreno Valley held a meeting to consider the application; and

WHEREAS, the public hearing notice for this project was published in the local newspaper on October 31, 2020. Public notice was sent to all property owners of record within 600 feet of the project site on October 29, 2020. The public hearing notice for this project was also posted on the project site on October 30, 2020;

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

WHEREAS, there is hereby imposed on the subject 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 November 12, 2020, including written and oral staff reports, and the record from the public hearing, this Planning Commission hereby specifically finds as follows:

1. That strict or literal interpretation and enforcement of the specified regulation would result in practical difficulty or unnecessary hardship not otherwise shared by others within the surrounding area or vicinity.

   FACT: The strict or literal interpretation and enforcement of the specified regulation would result in practical difficulty for the property owner. The proposed variance application will allow for the construction of a maximum 15 foot high retaining wall with a 6 foot high wall or fence on top with an overall height of 21 feet adjacent to Palm Middle School. Per Municipal Code Section 9.08.070 retaining walls in the rear yard may not exceed 6 feet and the combination of solid retaining and wall or fence may not exceed 8 feet solid, and the overall wall height may not exceed 12 feet with the addition of view fencing. The variance is to allow wall heights that exceed the maximum requirements of Municipal Code Section 9.08.070. Due to the following circumstances: 1) the existing grade change onsite which falls approximately 118 feet between its northern property line along Kalmia Avenue and its southern property line along Ironwood Avenue; 2) the proposed site is surrounded by existing development on all four sides with established grades that cannot be modified; and 3) all street rights-of-way within the development are required to comply with the Americans with Disabilities Act; and 4) the over-height retaining wall is required adjacent to Palm Middle School.

   Palm Middle School has provided a letter in support with the proposed wall heights as proposed by the variance.

2. That there are exceptional or extraordinary circumstances or conditions applicable to the property involved or to the intended use of the property

which do not apply generally to other properties in the vicinity and under the same zoning classification.

FACT: The subject property is unique to the other properties in the vicinity and under the same zoning classification because there are a combination of exceptional and extraordinary circumstances that result in the need for the proposed over-height retaining wall and tract boundary wall (approximately 21 feet in total height) adjacent to Palm Middle School. These circumstances include: 1) the existing grade change onsite which falls approximately 118 feet between its northern property line along Kalmia Avenue and its southern property line along Ironwood Avenue; 2) the proposed site is surrounded by existing development on all four sides with established grades that cannot be modified; and 3) all street rights-of-way within the development are required to comply with the Americans with Disabilities Act.

3. That strict or literal interpretation and enforcement of the specified regulation would deprive the applicant of privileges enjoyed by the owners of other properties in the vicinity and under the same zoning classification.

   FACT: The strict or literal interpretation and enforcement of the specified regulation would deprive the applicant of privileges enjoyed by the owners of other properties in the vicinity. Strict interpretation of the code would result in the underutilization of the property due to existing physical constraints associated with on-site grades and existing development.

4. That the granting of the variance will not constitute a grant of special privilege inconsistent with the limitations on the other properties in the vicinity and under the same zoning classification.

   FACT: The granting of the variance will not constitute the granting of a special privilege as existing adjacent development and on-site slopes limit the ability to develop a portion of the project site without the inclusion of the proposed retaining wall. These physical constraints are unique to the project site.

5. That the granting of the variance will not be detrimental to public health, safety or welfare, or materially injurious to properties or improvements in the vicinity.

   FACT: The proposed Variance PEN19-0245 will not be detrimental to public health, safety or welfare or materially injurious to properties or improvements in the vicinity. Staff has evaluated the design and potential environmental impact of the proposed project. The project has

been evaluated against criteria set forth in the California Environmental Quality Act (CEQA) Guidelines (Sections 15162 and 15164) and it has been determined that preparation of a subsequent Negative Declaration or an Addendum was not required since the proposed changes to the project were determined to be minor and that the project is consistent with the findings of the original Negative Declaration for this project that was approved by the Planning Commission March 23, 2006. Furthermore, the proposed combination retaining and 6 foot high wall will be designed in compliance with applicable building codes.

6. That the granting of a variance is consistent with the objectives and policies of the General Plan and the intent of Title 9.

   FACT: The proposed use would be in conformance with the existing surrounding residential uses. The location and design of the project will also be consistent with the other existing residential uses in the immediate vicinity.

BE IT FURTHER RESOLVED that the Planning Commission **HEREBY APPROVES** Resolution No. 2020-43 and thereby:

1. **APPROVE** Variance, PEN19-0245 based on the findings contained in the resolution.

APPROVED on this 12th day of November, 2020.

AYES:
NOES:
ABSTAIN:

_____
Patricia Korzec
Chair, Planning Commission

ATTEST:

_____
Patty Nevins, Planning Official

APPROVED AS TO FORM:

_____
Steve Quintanilla, City Attorney

IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

AMENDMENT TO TENTATIVE TRACT MAP 33436

AND PRELIMINARY GRADING PLAN

ADAMS STREETER CIVIL ENGINEERS *NOVEMBER 2019*

NUMBERED LOTS			
LOT #	LOT USE	LOT AREA (AC)	LOT AREA (SF)
1	RESIDENTIAL	0.26	11,385
2	RESIDENTIAL	0.23	10,150
3	RESIDENTIAL	0.23	9,920
4	RESIDENTIAL	0.22	9,497
5	RESIDENTIAL	0.21	9,065
6	RESIDENTIAL	0.20	8,637
7	RESIDENTIAL	0.19	8,423
8	RESIDENTIAL	0.19	8,425
9	RESIDENTIAL	0.19	8,484
10	RESIDENTIAL	0.20	8,575
11	RESIDENTIAL	0.20	8,585
12	RESIDENTIAL	0.20	8,590
13	RESIDENTIAL	0.20	8,595
14	RESIDENTIAL	0.20	8,563
15	RESIDENTIAL	0.22	9,418
16	RESIDENTIAL	0.23	9,962
17	RESIDENTIAL	0.19	8,100
18	RESIDENTIAL	0.19	8,124
19	RESIDENTIAL	0.19	8,163
20	RESIDENTIAL	0.19	8,163
21	RESIDENTIAL	0.19	8,163
22	RESIDENTIAL	0.20	8,633
23	RESIDENTIAL	0.23	9,861
24	RESIDENTIAL	0.24	10,340
25	RESIDENTIAL	0.24	10,450
26	RESIDENTIAL	0.24	10,450
27	RESIDENTIAL	0.24	10,345
28	RESIDENTIAL	0.25	11,005
29	RESIDENTIAL	0.25	11,055
30	RESIDENTIAL	0.25	11,055
31	RESIDENTIAL	0.24	10,664
32	RESIDENTIAL	0.23	10,081
33	RESIDENTIAL	0.23	10,150
34	RESIDENTIAL	0.23	10,050
35	RESIDENTIAL	0.24	10,280
36	RESIDENTIAL	0.27	11,836
37	RESIDENTIAL	0.19	8,483
38	RESIDENTIAL	0.18	8,023
39	RESIDENTIAL	0.18	7,884
40	RESIDENTIAL	0.17	7,588
41	RESIDENTIAL	0.17	7,485
42	RESIDENTIAL	0.17	7,340
43	RESIDENTIAL	0.17	7,241
44	RESIDENTIAL	0.17	7,200
45	RESIDENTIAL	0.17	7,200
46	RESIDENTIAL	0.17	7,379
47	RESIDENTIAL	0.18	7,718
48	RESIDENTIAL	0.17	7,256
49	RESIDENTIAL	0.25	11,086
50	RESIDENTIAL	0.42	18,308
51	RESIDENTIAL	0.49	21,183
52	RESIDENTIAL	0.45	19,662

NUMBERED LOTS			
LOT #	LOT USE	LOT AREA (AC)	LOT AREA (SF)
53	RESIDENTIAL	0.42	18,205
54	RESIDENTIAL	0.64	27,684
55	RESIDENTIAL	0.71	30,776
56	RESIDENTIAL	0.51	22,307
57	RESIDENTIAL	0.23	10,019
58	RESIDENTIAL	0.24	10,294
59	RESIDENTIAL	0.29	12,768
60	RESIDENTIAL	0.23	10,134
61	RESIDENTIAL	0.21	9,298
62	RESIDENTIAL	0.25	10,796
63	RESIDENTIAL	0.23	10,034
64	RESIDENTIAL	0.22	9,764
65	RESIDENTIAL	0.24	10,595
66	RESIDENTIAL	0.28	12,286
67	RESIDENTIAL	0.17	7,260
68	RESIDENTIAL	0.17	7,388
69	RESIDENTIAL	0.17	7,561
70	RESIDENTIAL	0.17	7,561
71	RESIDENTIAL	0.17	7,561
72	RESIDENTIAL	0.17	7,562
73	RESIDENTIAL	0.17	7,562
74	RESIDENTIAL	0.17	7,562
75	RESIDENTIAL	0.17	7,562
76	RESIDENTIAL	0.18	7,999
77	RESIDENTIAL	0.19	8,131
78	RESIDENTIAL	0.17	7,443
79	RESIDENTIAL	0.18	7,643
80	RESIDENTIAL	0.18	7,810
81	RESIDENTIAL	0.18	7,810
82	RESIDENTIAL	0.18	7,810
83	RESIDENTIAL	0.18	7,810
84	RESIDENTIAL	0.18	7,810
85	RESIDENTIAL	0.21	9,138
86	RESIDENTIAL	0.21	9,154
87	RESIDENTIAL	0.19	8,173
88	RESIDENTIAL	0.26	11,526
89	RESIDENTIAL	0.27	11,821
90	RESIDENTIAL	0.24	10,351
91	RESIDENTIAL	0.28	12,041
92	RESIDENTIAL	0.18	7,884
93	RESIDENTIAL	0.21	9,110
94	RESIDENTIAL	0.24	10,612
95	RESIDENTIAL	0.25	10,902
96	RESIDENTIAL	0.25	10,777
97	RESIDENTIAL	0.26	11,384
98	RESIDENTIAL	0.20	8,656
99	RESIDENTIAL	0.20	8,534
100	RESIDENTIAL	0.24	10,356
101	RESIDENTIAL	0.25	10,925
102	RESIDENTIAL	0.29	12,475
103	RESIDENTIAL	0.20	8,762
104	RESIDENTIAL	0.21	8,940
SUBTOTAL		24.07	1,048,604

LETTERED LOTS			
LOT #	LOT USE	LOT AREA (AC)	LOT AREA (SF)
LOT A	PUBLIC STREET	3.57	155,509
LOT B	PUBLIC STREET	0.32	13,972
LOT C	PUBLIC STREET	0.69	30,244
LOT D	PUBLIC STREET	0.28	12,221
LOT E	PUBLIC STREET	0.26	11,444
LOT F	PUBLIC STREET	0.88	38,532
LOT G	PUBLIC STREET	0.46	19,877
LOT H	PUBLIC STREET	0.22	9,556
LOT I	PUBLIC STREET	0.16	7,137
LOT J	PUBLIC STREET	1.27	55,185
LOT K	PUBLIC STREET	0.25	10,917
LOT AA	OPEN SPACE	0.93	40,526
LOT BB	WATER QUALITY FACILITY	1.24	53,823
SUBTOTAL		10.54	458,943

LAND USE SUMMARY

USE	ACREAGE
RESIDENTIAL (LOTS 1–104)	24.07 AC
LETTER LOTS	10.54 AC
TOTAL GROSS ACREAGE:	34.61 AC.
PUBLIC STREETS	8.37 AC.
TOTAL NET ACREAGE:	26.24 AC.

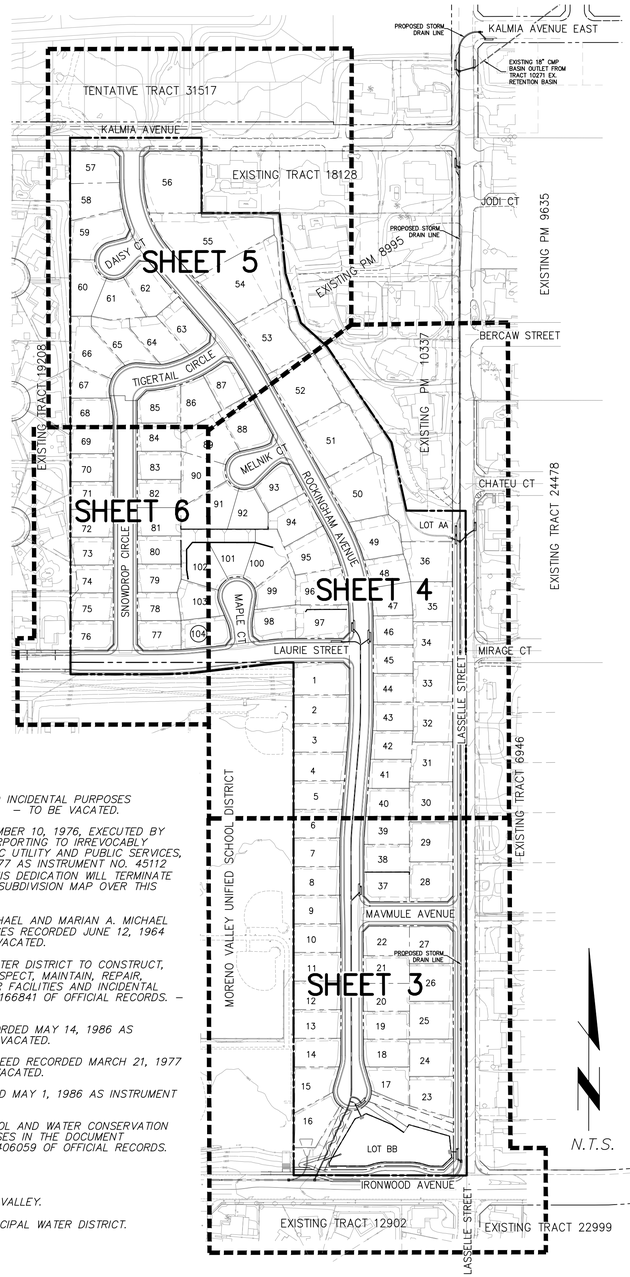
MINIMUM LOT SIZE: 7,200 SF
MAXIMUM LOT SIZE: 30,776 SF
DENSITY: 106 LOTS/ACRES: 4.04 LOTS PER NET ACRE

EASEMENT NOTES

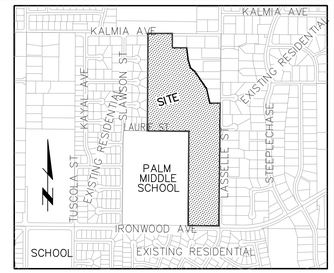
1. *AN EASEMENT IN FAVOR OF FRANK M. SHAW FOR ROADS AND INCIDENTAL PURPOSES RECORDED APRIL 10, 1928 IN BOOK 759 OF DEEDS, PAGE 66. – TO BE VACATED.*
2. *THE EFFECT OF A DECLARATION OF DEDICATION DATED SEPTEMBER 10, 1976, EXECUTED BY THE FEDERAL LAND BANK OF BERKELEY, A CORPORATION, PURPORTING TO IRREVOCABLY DEDICATE IN PERPETUITY FOR PUBLIC ROAD PURPOSES, PUBLIC UTILITY AND PUBLIC SERVICES, THE PROPERTY DESCRIBED THEREIN, RECORDED MARCH 18, 1977 AS INSTRUMENT NO. 45112 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA. (THIS DEDICATION WILL TERMINATE AND BECOME NULL AND VOID UPON THE RECORDATION OF A SUBDIVISION MAP OVER THIS PROPERTY). – TO BE VACATED.*
3. *A NON–EXCLUSIVE 15' EASEMENT IN FAVOR OF LLOYS W. MICHAEL AND MARIAN A. MICHAEL FOR UTILITIES, INGRESS AND EGRESS AND INCIDENTAL PURPOSES RECORDED JUNE 12, 1964 AS INSTRUMENT NO. 72361 OF OFFICIAL RECORDS. – TO BE VACATED.*
4. *AN EASEMENT 35' WIDE IN FAVOR OF EASTERN MUNICIPAL WATER DISTRICT TO CONSTRUCT, ENLARGE, RECONSTRUCT, REMOVE AND REPLACE, OPERATE, INSPECT, MAINTAIN, REPAIR, IMPROVE AND RELOCATE A PIPELINE OR PIPELINES AND OTHER FACILITIES AND INCIDENTAL PURPOSES RECORDED MAY 20, 1991 AS INSTRUMENT NO. 91–166841 OF OFFICIAL RECORDS. – TO BE VACATED.*
5. *AN EASEMENT FOR PIPELINE AND INCIDENTAL PURPOSES RECORDED MAY 14, 1986 AS INSTRUMENT NO. 86–111401 OF OFFICIAL RECORDS. – TO BE VACATED.*
6. *AN EASEMENT CONVEYED TO THE COUNTY OF RIVERSIDE BY DEED RECORDED MARCH 21, 1977 AS INSTRUMENT NO 46924 OF OFFICIAL RECORDS. – TO BE VACATED.*
7. *AN EASEMENT FOR EMBANKMENT SLOPES PURPOSES RECORDED MAY 1, 1986 AS INSTRUMENT NO 86–100768 OF OFFICIAL RECORDS. – TO BE VACATED.*
8. *AN EASEMENT IN FAVOR OF RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT FOR UNRESTRICTED ACCESS AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED ON NOVEMBER 21, 1992, AS INSTRUMENT NO. 91–406059 OF OFFICIAL RECORDS. EASEMENT IS BLANKET IN NATURE – TO BE VACATED.*

[1] *PROPOSED 25' STORM DRAIN EASEMENT TO CITY OF MORENO VALLEY.*

[2] *PROPOSED 20' SANITARY SEWER EASEMENT TO EASTERN MUNICIPAL WATER DISTRICT.*



INDEX MAP
N.T.S.



VICINITY MAP
N.T.S.

GENERAL NOTES

OWNER

KESTER STREET, LLC, ET AL
1318 BROADWAY, SUITE 100
SANTA MONICA, CA 90404

APPLICANT

ADAMS STREETER CIVIL ENGINEERS
16755 VON KARMAN AVE., SUITE 150
IRVINE, CA 92606
PHONE: (949) 474–2330
FAX: (949) 474–0251

CIVIL ENGINEER

ADAMS STREETER CIVIL ENGINEERS
16755 VON KARMAN AVE., SUITE 150
IRVINE, CA 92606
PHONE: (949) 474–2330
FAX: (949) 474–0251

REGISTERED PROFESSIONAL ENGINEER
NICHOLAS A. STREETER
C 70862
CIVIL
STATE OF CALIFORNIA

ASSESSOR'S PARCEL NO.

APN 474–200–014 & –025

LEGAL DESCRIPTION

PARCEL 1

THE EAST HALF OF THE WEST HALF OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 32, TOWNSHIP 2 SOUTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN

PARCEL 2

A PORTION OF THE SOUTHEAST QUARTER OF SECTION 32, TOWNSHIP 2 SOUTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN

LAND USE AND ZONING

CURRENT GENERAL PLAN	*R5*
CURRENT ZONING	*R5*
PROPOSED ZONING	*R5*
EXISTING USE	*VACANT*
PROPOSED LAND USE	*SINGLE FAMILY RESIDENTIAL*

FLOOD HAZARD

PER F.E.M.A. PANEL 0650740010 A
AREAS DETERMINED TO BE OUTSIDE 500 YEAR FLOOD PLAIN

EARTHWORK QUANTITIES

CUT	*171,494 CY*	
FILL	*104,508 CY*	
NET	*66,986 CY*	*EXPORT*

TOPOGRAPHY

ROBERT J. LUNG AND ASSOCIATES
2832 WALNUT AVENUE, SUITE E
TUSTIN, CALIFORNIA 92680
PHONE: 714 832–2077

DATED: 9.20.19

SCHOOL

MORENO VALLEY UNIFIED SCHOOL DISTRICT

PUBLIC UTILITIES

WATER	*EASTERN MUNICIPAL WATER DISTRICT*
SEWER	*EASTERN MUNICIPAL WATER DISTRICT*
ELECTRICITY	*SOUTHERN CALIFORNIA EDISON*
GAS	*THE GAS CO.*
TELEPHONE	*VERIZON*
CABLE	*ADELPHIA*

LEGEND:

50	LOT NUMBER
PE=	PAD ELEVATION
FS	FINISHED SURFACE
TC	TOP OF CURB
P/L	PROPERTY LINE
C/L	CENTER LINE
R/W	RIGHT OF WAY
RET.	RETAINING
	GRADED SLOPE
	PROPERTY LINE
	RIGHT–OF–WAY
	TRACT BOUNDARY
EX W	EXISTING WATER MAIN
W	PROPOSED WATER MAIN
EX S	EXISTING SEWER MAIN
S	PROPOSED SEWER MAIN
EX SD	EXISTING STORM DRAIN
SD	PROPOSED STORM DRAIN
EX G	EXISTING GAS MAIN
	RETAINING WALL PER SEPARATE PERMIT
	STREET LIGHT
	POWER POLE
	PROPOSED SEWER MANHOLE
	PROPOSED FIRE HYDRANT
	EXISTING FIRE HYDRANT
	PRESSURE REDUCING VALVE
	CATCH BASIN
	CHAIN LINK FENCE

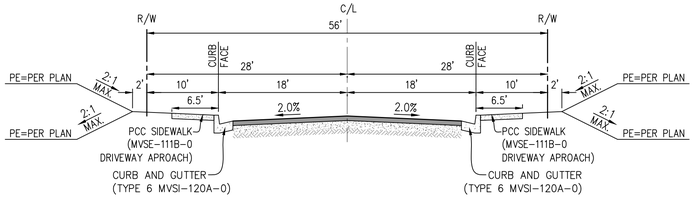
PREPARED BY:

ADAMS **STREETER**
Civil Engineers
16755 VON KARMAN, SUITE 150, Irvine, CA 92606 | 949.474.2330 | adams-streeter.com

AMENDMENT TO TENTATIVE TRACT MAP 33436
AND PRELIMINARY GRADING PLAN
CITY OF MORENO VALLEY, STATE OF CALIFORNIA
TITLE SHEET
PEN19–0244

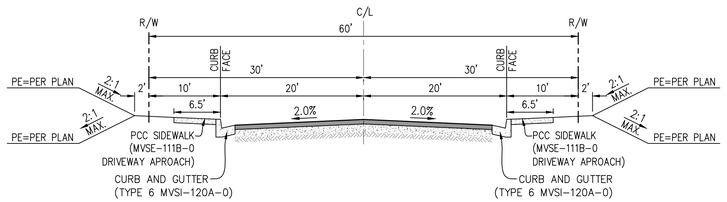
DATE: 08/13/2020

SHEET 1 OF 6



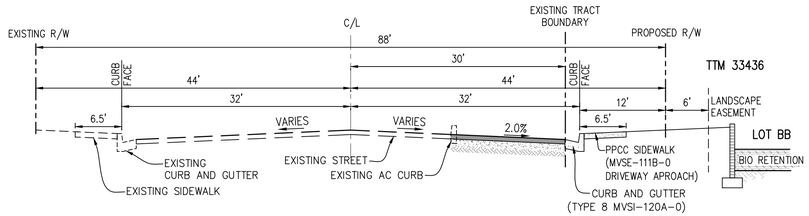
TYPICAL STREET SECTION PER MVSI-107A-0

ROCKINGHAM AVENUE (STATION 10+00 TO 14+00) N.T.S.
MAPPLE COURT
MELNIK COURT
DAISY COURT



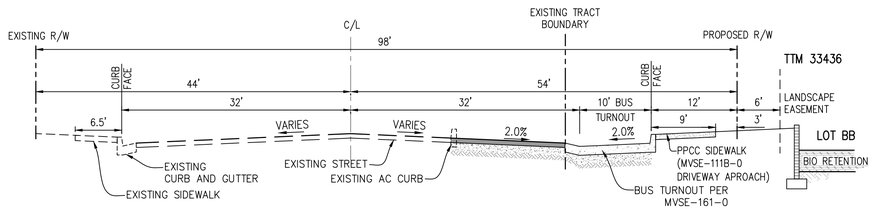
TYPICAL STREET SECTION PER MVSI-107A-0 (MODIFIED)

ROCKINGHAM AVENUE (STATION 14+00 TO 35+00) N.T.S.
SNOWDROP CIRCLE
TIGERTAIL CIRCLE
MAVMULE AVENUE
LAURIE STREET



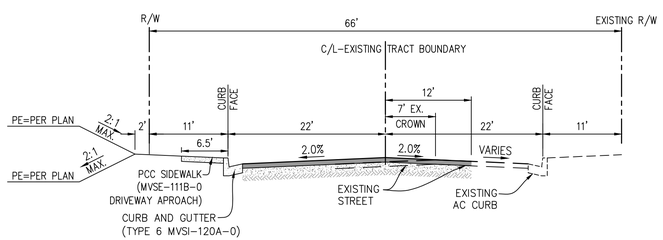
TYPICAL STREET SECTION PER MVSI-105A-1

IRONWOOD AVENUE N.T.S.



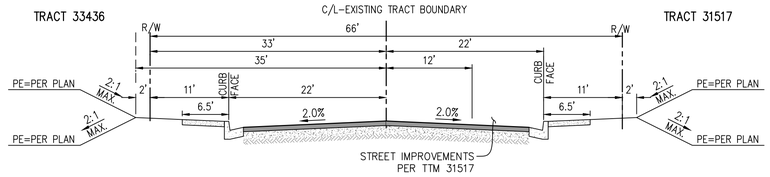
TYPICAL STREET SECTION PER MVSI-105A-1

IRONWOOD AVENUE (AT BUS TURNOUT) N.T.S.



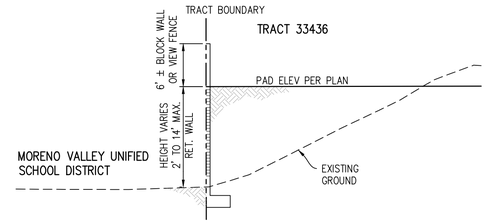
TYPICAL STREET SECTION PER MVSI-106B-0

LASSELLE STREET N.T.S.



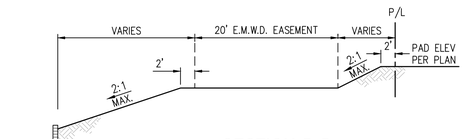
TYPICAL STREET SECTION PER MVSI-106.B-0

KALMIA AVENUE N.T.S.



SECTION A-A

N.T.S.



SECTION B-B

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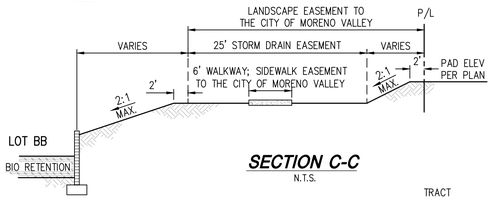
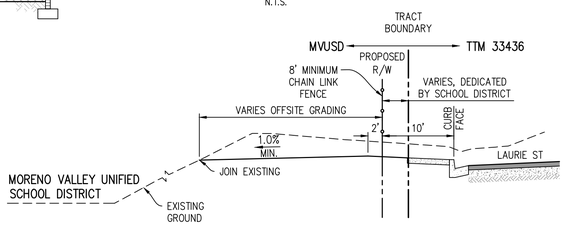


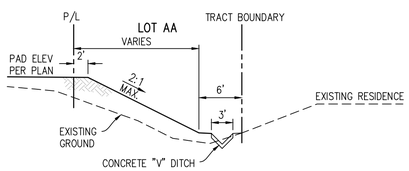
SECTION C-C

N.T.S.



SECTION D-D

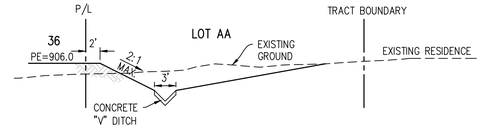
N.T.S.



SECTION E-E

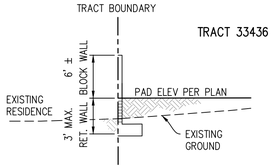
N.T.S.

NOTE: ADD +1000 TO ELEVATIONS SHOWN TO MATCH CITY TOPOGRAPHY DATUM



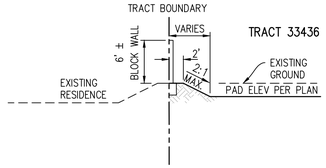
SECTION F-F

N.T.S.



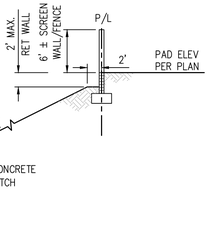
SECTION G-G

N.T.S.



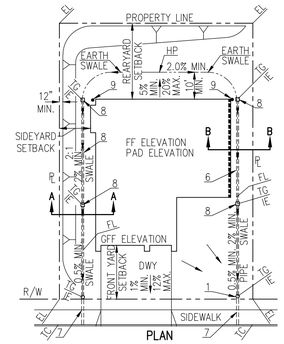
SECTION H-H

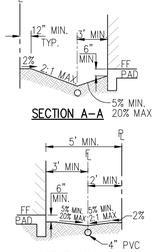
N.T.S.



SECTION I-I

N.T.S.





NOTES:

1. 6 INCH ROUND NDS-201 DOUBLE OUTLET DRAIN BOX AND DRAINAGE GRATE, OR APPROVED EQUAL.
2. ALL FITTINGS BY, NDS, INC. (OR EQUAL)
3. DO NOT GLUE GRATE OR RISER TO PIPE.
4. GLUE SHALL BE "IPS WELD ON #773 SOLVENT.
5. USE TEE WITH 90° SWEEP WHEN CONNECTING GRATE OR CLEAN-OUT TO AREA DRAIN SYSTEM.
6. COMPLETE YARDS DRAIN SYSTEM.
7. CONSTRUCT YARD DRAIN AND CLEAN-OUT PER STD. MVSI-152.
8. TYPICAL AREA DRAIN PER STD. MVSI-153B.
9. TYPICAL DOWNSPOUT PER STD. MVSI-153C.
10. SEE STD MVSI-160B-0 GRADING REQUIREMENTS.

LEGEND:

- 4" PVC
- FLOW LINE
- DEEPENED FOOTINGS, AS REQUIRED
- 6" DRAIN BOX AND GRATE
- AREA DRAIN ASSEMBLY (SEE STD. MVSI-153B)

TYPICAL LOT DRAINAGE

PER CITY OF MORENA VALLEY STD. MVSI-153A-1

PREPARED BY:
ADAMS STREETER Civil Engineers
16755 VON KARMAN, SUITE 150, Irvine, CA 92606 | 949.474.2330 | adams-streeter.com

AMENDMENT TO TENTATIVE TRACT MAP 33436
AND PRELIMINARY GRADING PLAN
CITY OF MORENO VALLEY, STATE OF CALIFORNIA

SECTION DETAILS
PEN19-0244

DATE: 08/13/2020

SHEET 2 OF 6

LEGEND:

LANDSCAPE EASEMENT DEDICATED TO THE CITY OF MORENO VALLEY

NOTE:
THE WATER QUALITY BMP PORTION OF LOT BB WILL BE OWNED BY THE HOME OWNERS ASSOCIATION AND MAINTAINED BY THE CITY VIA A MAINTENANCE AGREEMENT. BASIN TO BE FENCED WITH GATED ACCESS FOR MAINTENANCE PURPOSE.

NOTE: ADD +1000 TO ELEVATIONS SHOWN TO MATCH CITY TOPOGRAPHY DATUM

PREPARED BY:
ADAMS STREETER
Civil Engineers
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AMENDMENT TO TENTATIVE TRACT MAP 33436
AND PRELIMINARY GRADING PLAN
CITY OF MORENO VALLEY, STATE OF CALIFORNIA

PEN19-0244

DATE: 08/13/2020

SHEET 3 OF 6

SEE SHEET 6

SEE SHEET 5

SEE SHEET 3

TRACT BOUNDARY

RIGHT OF WAY

DAYLIGHT LINE

TO BE DEDICATED BY MORENO VALLEY UNIFIED SCHOOL DISTRICT

EARTH REMOVAL AREA OFFSITE PERMIT REQUIRED

8' MINIMUM CHAIN LINK FENCE

MORENO VALLEY UNIFIED SCHOOL DISTRICT
PALM MIDDLE SCHOOL
APN 474-200-026

MAPLE COURT

LOT D

LAURIE STREET

LOT C

MELNIK COURT

LOT E

ROCKINGHAM AVENUE

LOT A

ASSELLE STREET

LOT J

LOT AA
33,256 SF

MIRAGE COURT

CHATEAU CT.

TRACT NO. 24478
M.B. 234/89-90

PARCEL 2
R5
EXISTING S.F.R.
APN 474-200-016

PARCEL 3
R5
EXISTING S.F.R
APN 474-200-017

PARCEL 4
R5
EXISTING S.F.R
APN 474-200-018
PM 10337
PMB 51/94

PARCEL 4
PM 9635

LOT 18 R5 EXISTING RESIDENTIAL 2 DW/AC APN 474-371-011

LOT 17 R5 EXISTING RESIDENTIAL 2 DW/AC APN 474-371-002

LOT 16 R5 EXISTING RESIDENTIAL 2 DW/AC APN 474-371-001

1	8,925 SF PE=913.0	2	7,884 SF PE=941.0
2	9,065 SF PE=888.7	3	9,920 SF PE=893.3
4	9,497 SF PE=891.2	5	9,065 SF PE=888.7
30	11,055 SF PE=884.5	31	10,664 SF PE=887.5
32	10,081 SF PE=890.7	33	10,150 SF PE=894.5
34	10,050 SF PE=898.5	35	10,280 SF PE=902.3
36	11,761 SF PE=907.0	40	7,588 SF PE=888.1
41	7,485 SF PE=890.5	42	7,340 SF PE=892.9
43	7,241 SF PE=895.2	44	7,200 SF PE=897.5
45	7,200 SF PE=900.0	46	7,379 SF PE=902.3
47	7,718 SF PE=905.5	48	7,269 SF PE=910.8
49	11,461 SF PE=917.0	50	18,959 SF PE=928.2
51	21,619 SF PE=937.9	52	19,979 SF PE=944.5
88	11,526 SF PE=941.0	89	11,821 SF PE=942.0
91	12,041 SF PE=941.2	92	7,884 SF PE=941.0
93	9,110 SF PE=940.0	94	10,612 SF PE=930.0
95	10,902 SF PE=921.0	96	10,777 SF PE=911.0
97	11,384 SF PE=904.0	98	8,656 SF PE=913.5
99	8,534 SF PE=916.2	100	10,356 SF PE=918.5
101	10,925 SF PE=918.5		

PROPOSED 8" WATER
PROPOSED 8" SEWER
PROPOSED 24" RCP SD
PROPOSED 42" RCP SD
PROPOSED RW
PROPOSED CURB AND GUTTER
JOIN EXIST CONCRETE V DITCH
PROPOSED 1' CONCRETE V DITCH
PROPOSED 3' CONCRETE V DITCH
EXISTING CURB
EXISTING FH
EXISTING 2IN GAS
EXISTING 8" WATER
1% MIN.
2:1 MAX.

NOTE:
LOT AA WILL BE OWNED MAINTAINED BY THE HOME OWNERS ASSOCIATION.

LEGEND:

TO BE DEDICATED BY MORENO VALLEY UNIFIED SCHOOL DISTRICT

40' 30' 20' 10' 0' 40' 80'
GRAPHIC SCALE: 1"=40'

NOTE: ADD +1000 TO ELEVATIONS SHOWN TO MATCH CITY TOPOGRAPHY DATUM

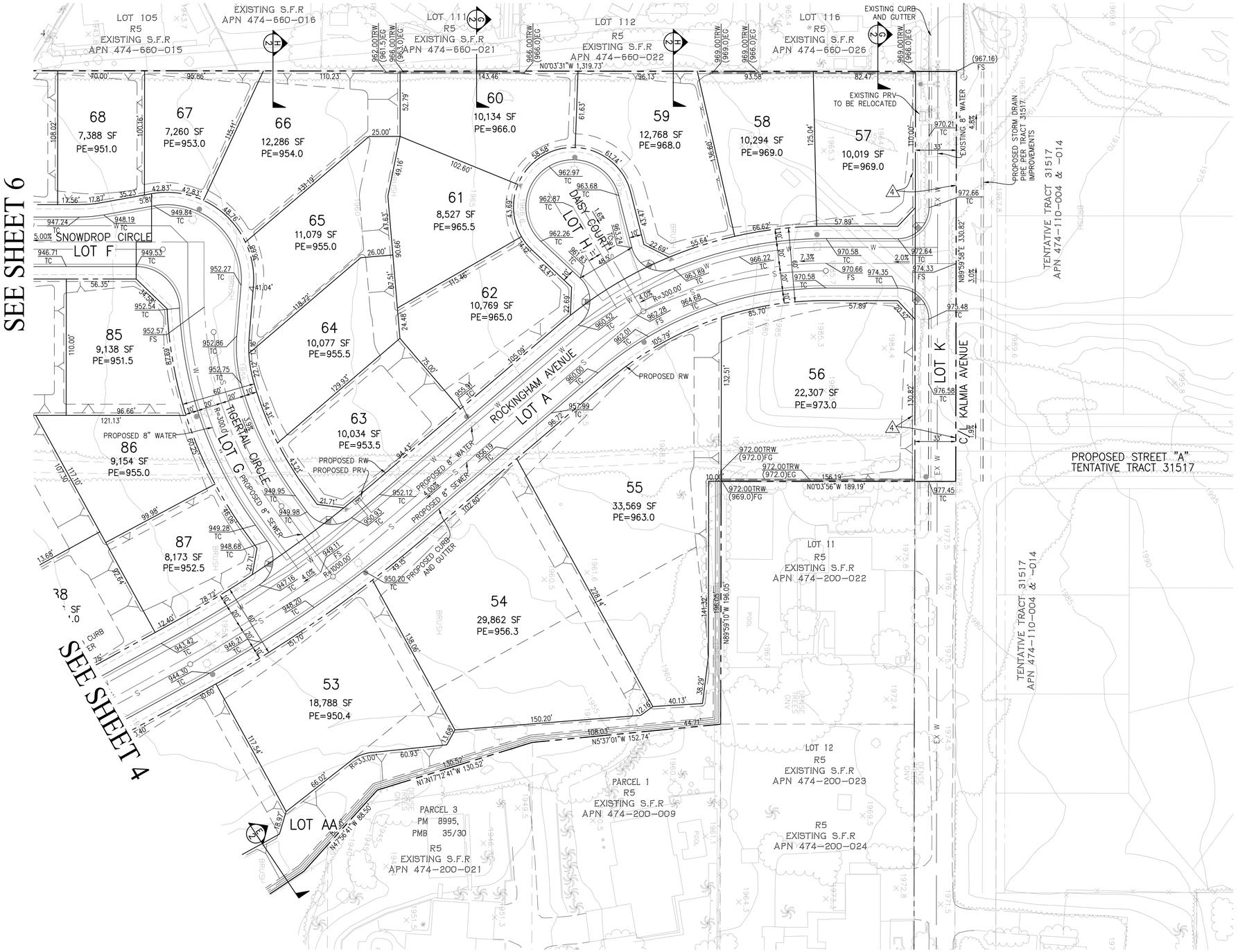
PREPARED BY:
ADAMS STREETER
Civil Engineers
16755 VON KARMAN, SUITE 150, Irvine, CA 92606 | 949.474.2330 | adams-streeter.com

AMENDMENT TO TENTATIVE TRACT MAP 33436
AND PRELIMINARY GRADING PLAN
CITY OF MORENO VALLEY, STATE OF CALIFORNIA

PEN19-0244

DATE: 08/13/2020

SHEET 4 OF 6



NOTE:
LOT AA WILL BE OWNED MAINTAINED BY THE HOME OWNERS ASSOCIATION.

40' 30' 20' 10' 0' 40' 80'
GRAPHIC SCALE: 1" = 40'

NOTE: ADD +1000 TO ELEVATIONS SHOWN TO MATCH CITY TOPOGRAPHY DATUM

PREPARED BY:
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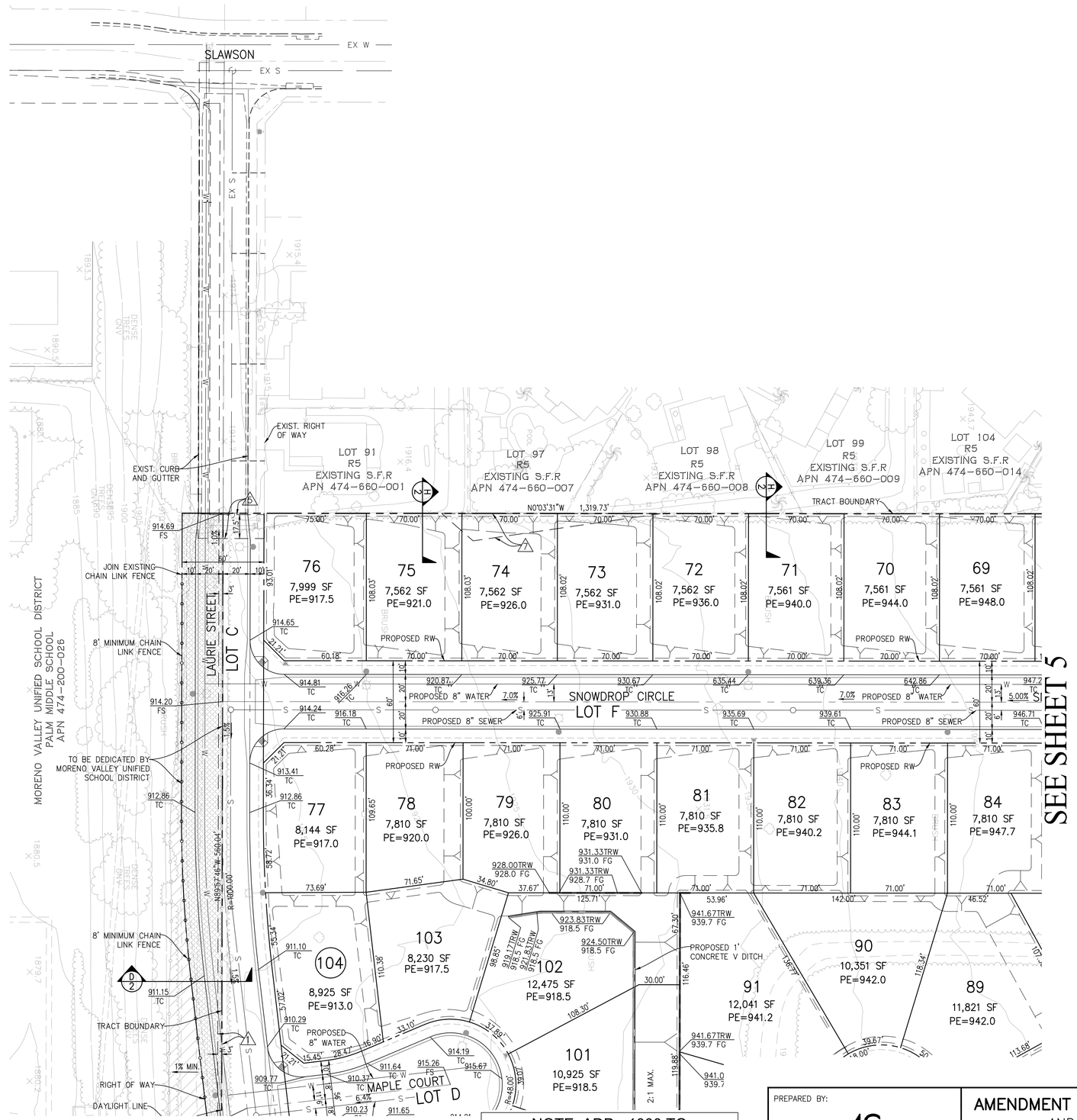
AMENDMENT TO TENTATIVE TRACT MAP 33436
AND PRELIMINARY GRADING PLAN
CITY OF MORENO VALLEY, STATE OF CALIFORNIA

PEN19-0244

DATE: 08/13/2020

SHEET 5 OF 6



LEGEND:

TO BE DEDICATED BY MORENO VALLEY UNIFIED SCHOOL DISTRICT

GRAPHIC SCALE: 1"=40'

NOTE: ADD +1000 TO ELEVATIONS SHOWN TO MATCH CITY TOPOGRAPHY DATUM

PREPARED BY:

ADAMS **STREETER**
Civil Engineers
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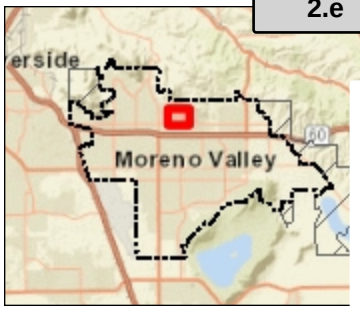
AMENDMENT TO TENTATIVE TRACT MAP 33436
AND PRELIMINARY GRADING PLAN
CITY OF MORENO VALLEY, STATE OF CALIFORNIA

PEN19-0244

DATE: 08/13/2020

SHEET 6 OF 6

Aerial Map



Legend

Image Source: Nearmap

Notes:

PEN19-0244 and PEN19-0245

APN(s): 474200014, 474200025

1,261.9 0 630.96 1,261.9 Feet

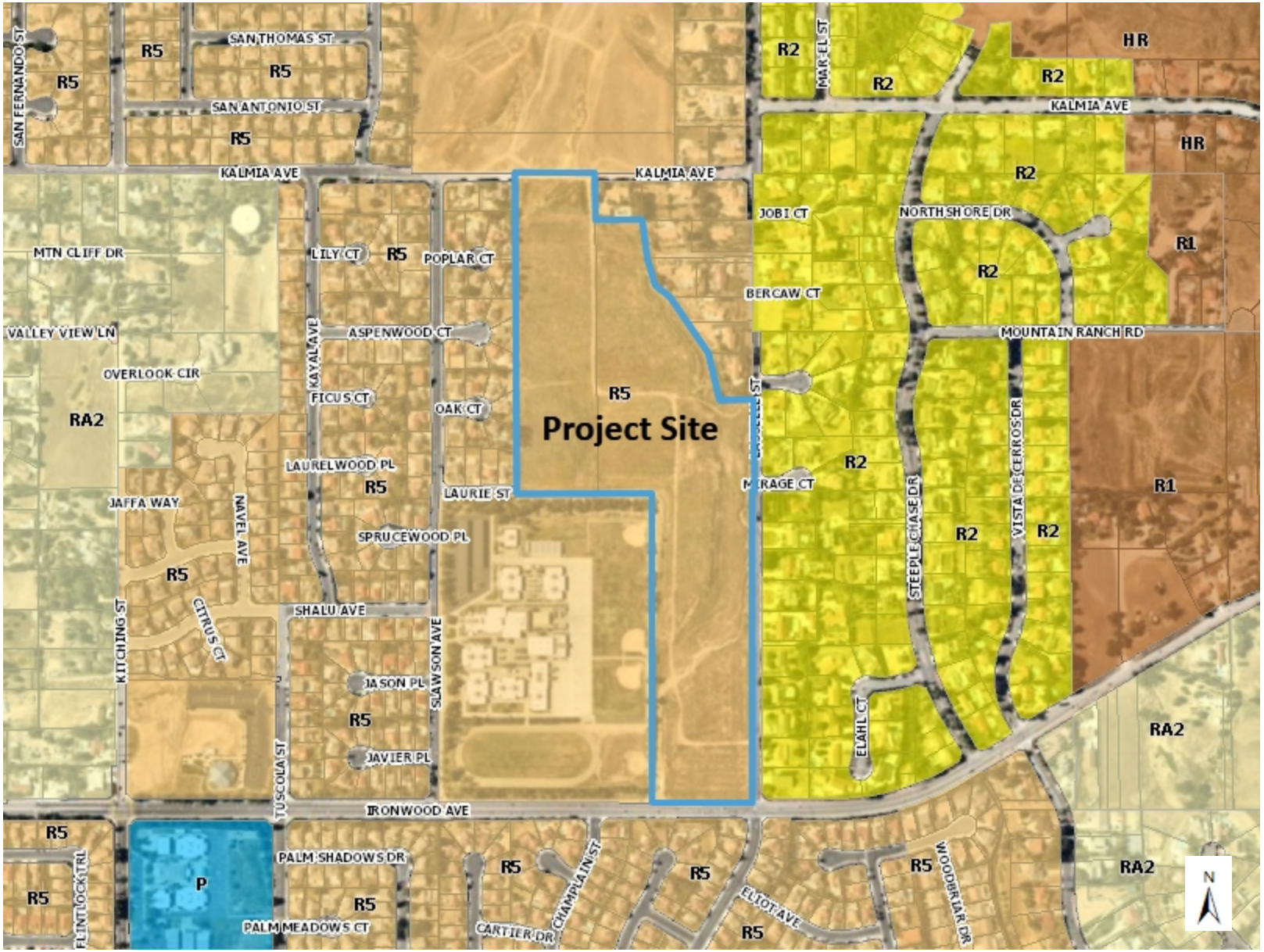
WGS_1984_Web_Mercator_Auxiliary_Sphere

Print Date: 10/27/2020

DISCLAIMER: The information shown on this map was compiled from the City of Moreno Valley GIS and Riverside County 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.

Attachment: Aerial Map [Revision 1] (4192 : PEN19-0244 and PEN19-0245)

Residential 5 (R5) District



Legend

Zoning

- Commercial
- Industrial/Business Park
- Public Facilities
- Office
- Planned Development
- Large Lot Residential
- Residential Agriculture 2 DU/AC
- Residential 2 DU/AC
- Suburban Residential
- Multi-family
- Open Space/Park

Master Plan of Trails

- Bridge
- Improved
- Multiuse
- Proposed
- Regional
- State

Road Labels

- Parcels
- City Boundary
- Sphere of Influence

Image Source: Nearmap

Notes:

PEN19-0244 and PEN19-0245

APN(s): 474200014, 474200025

1,261.9 0 630.96 1,261.9 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere

Print Date: 10/27/2020

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Attachment: Zoning Map [Revision 1] (4192 : PEN19-0244 and PEN19-0245)

City of Moreno Valley
Community Development Department
Planning Division
City Hall Council Chamber
14177 Frederick Street
Moreno Valley, CA 92553

NOTICE OF PUBLIC HEARING (VIA TELECONFERENCE ONLY)

PURSUANT TO COVID-19 GOVERNOR EXECUTIVE ORDER N-29-20

Notice of Teleconferenced Public Hearing before the Planning Commission of City of Moreno Valley:

DATE & TIME: November 12, 2020 at 7:00 P.M. **VIA TELECONFERENCE ON**

COVID-19 TELECONFERENCE INSTRUCTIONS:
For Teleconference Meeting public participation instructions please see agenc
http://morenovalleyca.iqm2.com/Citizens/default.aspx

PROJECT LOCATION: Northwest corner of Ironwood Avenue and Lasselle S (APN: 474-200-014 and 474-200-025), District 2.

CASE NUMBER(s): PEN19-0244 and PEN19-0245

CASE PLANNER: Gabriel Diaz, Associate Planner
(951) 413-3226 or gabrield@moval.org

<APN>
<Property Owner>
<Street Address>
<City, State, Zip>

Attachment: Mailing Notice - 600 Foot (4192 : PEN19-0244

NOTICE OF PUBLIC HEARING (VIA TELECONFERENCE ONLY)

PROPOSAL: A proposal for an Amended Tentative Tract Map (TTM No. 33436) to reduce the number of lots from 105 to 104 and modify project grading; and a Variance application to increase the height of a combined retaining and freestanding wall from 8 feet t 21 feet adjacent to Palm Middle School. The property is zoned Residential 5 (R5) District.

ENVIRONMENTAL DETERMINATION: The project has been evaluated against criteria set forth in the California Environmental Qualit Act (CEQA) Guidelines (Sections 15162 and 15164) and it has been determined that proposed changes to the project are consister with, and will not require revisions to or further analysis of, the approved Negative Declaration for Tentative Tract Map 33436; therefore no subsequent environmental review is required.

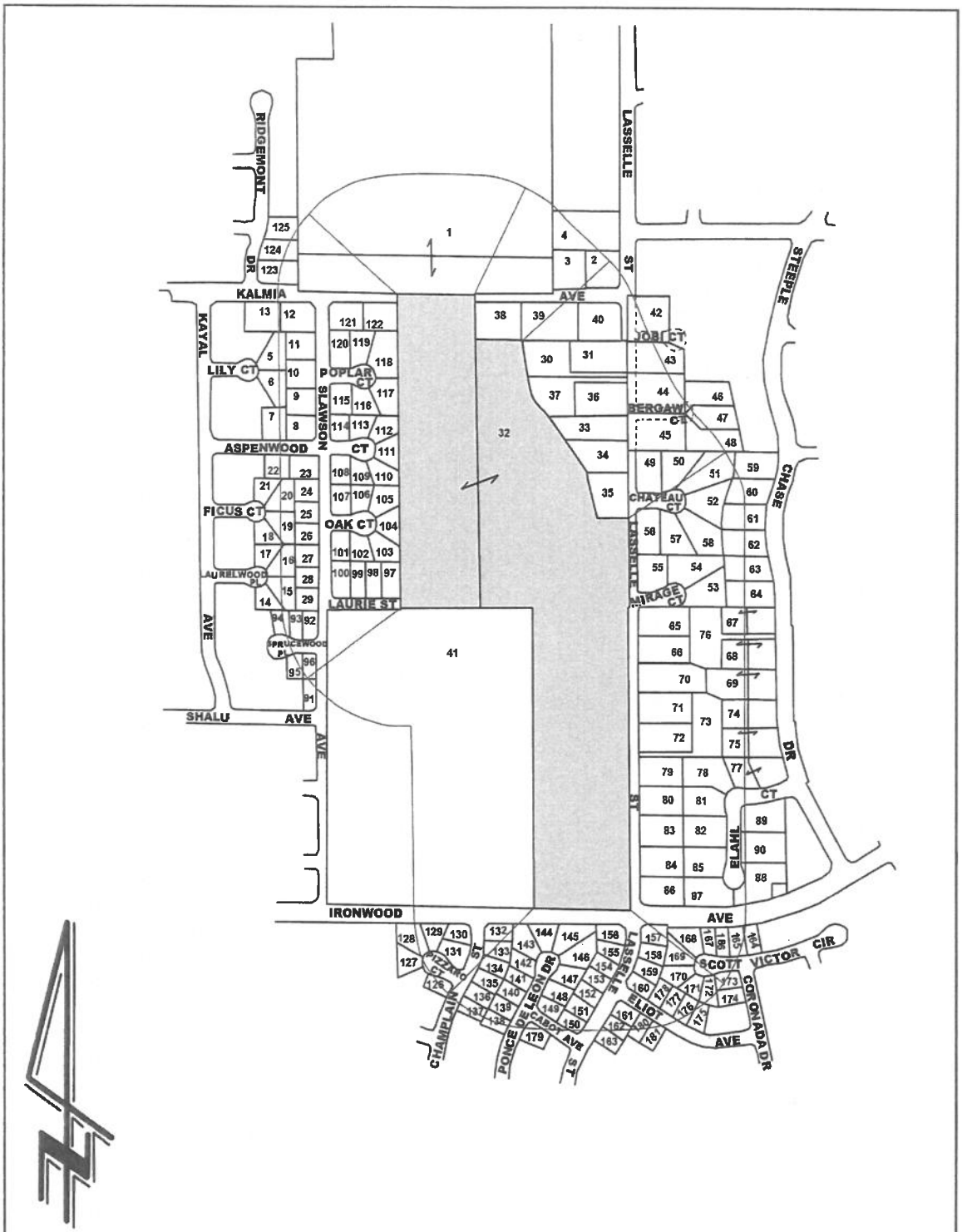
PUBLIC HEARING: All interested parties will be provided an opportunity to submit oral testimony during the teleconferenced Publi Hearing and/or provide written testimony during or prior to the teleconferenced Public Hearing. The application file and relate environmental documents may be inspected by appointment at the Community Development Department at 14177 Frederick Stree Moreno Valley, California by calling (951) 413-3206 during normal business hours (7:30 a.m. to 5:30 p.m., Monday through Thursday)

COVID-19 – IMPORTANT NOTICES: Please note that due the COVID-19 pandemic situation, staff will attempt to make reasonabl arrangements to ensure accessibility to inspect the aforementioned records. **In addition, special instructions on how to effectivel participate in the teleconferenced Public Hearing, as approved by Governor Executive Order N-25-20, will be posted a http://morenovalleyca.iqm2.com/Citizens/default.aspx and will be described in the Planning Commission agenda.**

PLEASE NOTE: The Planning Commission may consider and approve changes to the proposed items under consideration during t teleconferenced Public Hearing.

GOVERNMENT CODE § 65009 NOTICE: If you challenge any of the proposed actions taken by the Planning Commission in court, y may be limited to raising only those issues you or someone else raised during the teleconferenced Public Hearing described in t notice, or in written correspondence delivered to the Planning Division of the City of Moreno Valley during or prior to, the teleconferenc Public Hearing.

Upon request and in compliance with the Americans with Disabilities Act of 1990, any person with a disability who requires a modification o accommodation in order to participate in a meeting should direct such request to Guy Pegan, ADA Coordinator, at 951.413.3120 at least 48 hours before the meeting. The 48-hour notification will enable the City to make reasonable arrangements to ensure accessib



1" = 600FT

600 FOOT RADIUS MAP

CONTINENTAL MAPPING SERVICE

LOCATED AT:

6315 VAN NUYS BLVD #208
VAN NUYS CA 91401
(818) 787-1663

SUBJECT PROPERTY:

A.P.N. 474-200-014 & 025

DATE: 10-9-2020
CMS 20-7987

MORENO VALLEY
UNIFIED SCHOOL DISTRICT

FACILITIES PLANNING

25634 Alessandro Blvd.
Moreno Valley, CA 92553
951-571-7500
www.mvusd.net

May 13, 2020

City of Moreno Valley
Community Development
Mr. Gabriel Diaz
14177 Frederick Street
Moreno Valley, Ca 92553

Subject: Tentative Tract Map 33436

Mr. Diaz,

The Moreno Valley Unified School District has reviewed the Amendment to Tentative Tract Map 33436, prepared by Adams Streeter Civil Engineers, dated 5/5/2020.

The District is in support of the proposed development, specifically the proposed retaining wall along the westerly boundary, which varies in height from 2' to 14', with a 6'- high minimum screen wall or fence.

Please let me know if you have any questions or comments.

Respectfully,

Jorge Alvarado
MVUSD Facilities Planner

Cc: Samer Alzubaidi, MVUSD Facilities Director
Nick Streeter, Adams Streeter Civil Engineer
Orlando Montero, Broker DRE LIC 01273733

PLANNING COMMISSION

STAFF REPORT

Meeting Date: November 12, 2020

PROPOSED GENERAL PLAN AMENDMENT AND CHANGE OF ZONE AMENDING FIGURE 2-2 "LAND USE MAP" OF THE MORENO VALLEY GENERAL PLAN AND THE CITY ZONING ATLAS, RESPECTIVELY, AND PROPOSED CONDITIONAL USE PERMITS FOR A DRIVE THROUGH RESTAURANT WITH OUTDOOR SEATING AND A FUELING STATION AND CONVENIENCE STORE WITH ALCOHOL SALES.

Case:	PEN19-0206 - General Plan Amendment PEN19-0207 - Change of Zone PEN19-0204 - Conditional Use Permit – Drive Through Restaurant with Outdoor Seating PEN19-0205 - Conditional Use Permit – Fueling Station with Convenience Store with Beer and Wine Sales
Applicant:	Cadence Acquisition LLC
Property Owner	John David Monjazi and Jonathan J Monjazi
Representative	Greg Fick
Location:	Northeast corner of Perris Boulevard at Dracaea Avenue
Case Planner:	Julia Descoteaux
Council District:	3
Proposal:	The Applicant is requesting approval of the following entitlements for an 2.04-acre site: 1) a General Plan Amendment (GPA) amending Figure 2-2 “Land Use Map” of the Moreno Valley General Plan to change the land use designation of the Project site from Residential/ Office (R/O) to Commercial (C); 2) a Change of Zone amending the City of Moreno Valley Zoning Atlas to rezone the project site from Office (O) District and Office Commercial (OC) District to

Community Commercial (CC) District; 3) a Conditional Use permit for a vehicle fueling station and convenience store; and 4) a Conditional Use Permit for a drive-through restaurant with outdoor seating.

SUMMARY

The applicant, Cadence Acquisition, is requesting approval of the following: a General Plan Amendment (PEN19-0206) to amend the General Plan land use designation from Residential/Office (R/O) and Office (O) to Commercial (C); a Change of Zone (PEN19-0207) to amend the zoning of the site from Office (O) District and Office Commercial (OC) District to Community Commercial (CC) District; a Conditional Use Permit for a drive through restaurant with outdoor seating; and a Conditional Use Permit for a fueling station with a convenience store including beer and wine sales for off-site consumption.

PROJECT DESCRIPTION

General Plan Amendment

The City of Moreno Valley General Plan land use map designates the Project site as Residential/Office (R/O) and the proposal would change this to a Commercial (C) land use designation.

The primary purpose of the Residential/Office (R/O) designation is to provide areas for the establishment of office-based working environments or residential developments of up to 15 dwelling units per acre. The primary purpose of areas designated Commercial (C) is to provide property for business purposes, including, but not limited to, retail stores, restaurants, banks, hotels, professional offices, personal services and repair services.

The Applicant is proposing a General Plan Amendment to amend the General Plan land use designation boundaries to align with the respective zoning boundaries and correspond to the parcel boundaries of the proposed Project. The proposed General Plan Amendment will result in a total increase of approximately 2.04-acres of Commercial (C) and a corresponding reduction of approximately 2.04-acres of Residential/Office (R/O).

Change of Zone

The site of the proposed Project is currently zoned Office Commercial (OC) District with the portion connecting the site to Atwood Avenue zoned Office (O) District. The primary purpose of Office Commercial (OC) District is to provide for the establishment of businesses, corporate and administrative offices, as well as commercial services which are supportive to major business developments. Retail facilities which support the office developments are permitted, subject to limitations (25% retail). The Office (O) District provides for general office type development creating a compatibility with surrounding residential uses.

The applicant is proposing a Change of Zone of the Project site to Community Commercial (CC) District. The primary purpose of the Community Commercial (CC) District is to provide for the general shopping needs of area residents and workers with a variety of businesses, retail, personal and related or similar services.

Conditional Use Permits

The Municipal Code allows for drive through restaurants, fueling stations and convenience stores with alcohol sales in the Community Commercial (CC) District with the approval of a Conditional Use Permit when located within 300 feet of existing residences or a residential zoning district.

Both proposed Conditional Use Permits require a General Plan Amendment and Change of Zone as the existing underlying General Plan land use designation and zoning designations do not allow drive throughs or fueling stations.

The Applicant will develop the 3,000 square foot drive through restaurant with outdoor seating on the northerly portion of the site with shared access to the site from Perris Boulevard. The site provides approximately 400 square feet of outdoor dining area to the east of the building and includes associated parking and a trash enclosure.

As part of the restaurant proposal the applicant requested that the Planning Commission consider extended hours of operation for hours from 4:30 a.m. to 12:00 a.m., whereas the Municipal Code permits operations from 6:00 a.m. to 10:00 p.m. due to the parcel's adjacency to a residential zoning district (R15 District) to the east. The City is considering an amendment to Section 9.09.080 Drive-in, drive-through, fast food and take-out restaurants to allow the Planning Commission the discretion to consider such requests. Staff supports the request with slight modifications and a condition of approval has been recommended that would allow hours of operation from 5:00 a.m. to 12:00 a.m., contingent upon City Council approval of a Municipal Code Amendment to allow this.

The fueling station and the approximately 4,088 convenience store will be located on the southwest portion of the site and will include a canopy with six pumps (12 stations) westerly of the store and fronting Perris Boulevard. The fueling station will be placed the furthest away from the existing easterly residential uses. Access to the site is provided by a shared driveway along Perris Boulevard and Dracaea Avenue.

A Conditional Use Permit allows the City to impose special development requirements to ensure that certain uses will not be detrimental to a project's surrounding properties. Conditional uses may be appropriate at one location but not at another because of the potential for impacts on surrounding properties. The following summarizes the Project's design elements that are intended to minimize impacts on nearby residential uses.

A. A 20 foot wide landscape setback is provided between the Project and all property lines to the north and east with a six foot block wall between the Project site and the nearest residences.

B. The canopy for the fueling station is more than 100 feet from the east property line and buffered from residential uses by the fueling station building.

C. Two trash enclosures for the Project are located in the interior of the site approximately 150 away from all residential uses. The Code requirement is to be located a minimum of 45 feet from any residential structure. The trash enclosure would be fully screened and include a covered roof.

Site/Surrounding Area

The approximately 2.04 acre site is located on the northeast corner of Perris Boulevard and Dracaea Avenue and will include a driveway access to Atwood Avenue along the Perris Street frontage.

The surrounding area includes existing single family homes to the east on property zoned Residential 15 (R15) District, existing single family homes to the north on property zoned Office (O) District, undeveloped property directly to the south zoned Office Commercial (OC) District, and developed property to the west and southwest zoned Specific Plan 204 Community Commercial (CC) District.

Access/Parking

The main access to the Project site will be from Perris Boulevard into the center of the Project with right-in, right-out access. A secondary driveway along Dracaea Avenue will allow for full access including a left-in entrance for delivery vehicles. Access to and from the site at Atwood Avenue will run parallel to the Perris Boulevard frontage, subject to the approval of neighboring property owners. The Atwood driveway will be fully improved with landscaping along the street frontage.

Design/Landscaping

The architectural design of the propose Project will consist of contemporary single-story buildings that include a combination of stucco and clad siding treatments with spandrel storefronts and accent metal canopies. Colors are grey with brown tone accents. The perimeter walls will be decorative block, six (6) feet in height.

The Project has been designed to meet required design and landscape standards and objectives set forth in the Municipal Code. The landscape elements of the Project include the landscape setback areas along Perris Boulevard and Dracaea Avenue with enhanced landscaping along the frontage to Atwood Avenue that will include street trees, parking lot landscaping, and landscape treatments along the perimeter of the site and within the bio-retention basin.

ENVIRONMENTAL

An Initial Study was prepared by LSA Associates, Inc. in compliance with the California Environmental Quality Act (CEQA) Guidelines. The Initial Study examined the potential of the proposed Project having any significant impacts on the environment. The Initial Study/Mitigation Negative Declaration (IS/MND) provides information in support of the

finding that a Mitigated Negative Declaration serves as the appropriate CEQA documentation for the proposed Project in that the proposed Project, with the implementation of the proposed mitigation measures, will not have a significant effect on the environment. Technical studies prepared in support of the IS/MND include the following: Air Quality – GHG, Biology – MSHCP, Western Riverside County MSHCP Consistency Analysis, Cultural Resources Assessment, Noise Analysis, and a Traffic Study. The electronic files for the IS/MND with appendices are attached to this staff report. Anyone wishing to view the documents can also do so at City Hall.

Mitigation measures are recommended for the proposed Project in the following areas: Biological Resources, Cultural/Tribal Resources, Geology and Soils, Hydrology and Water Quality, Noise and Transportation, and are incorporated into the Mitigation Monitoring and Report Program. The measures for cultural resources have been included to address input from the Tribal governments. The measures are intended to ensure that potential resources that might be discovered are protected. However, these measures are not required to address a known significant impact. Based on the Initial Study, and the proposed mitigation measures, the Project will not cause any significant impacts or environmental damage.

The public comment period for the Notice of Availability for the Initial Study/Mitigated Negative Declaration began on October 23, 2020, and ends on November 12, 2020, which satisfies the required 20-day review period. As of the preparation of this staff report, no comments have been received. Should comments regarding the Project be received prior to the Planning Commission they will be provided at the public hearing.

REVIEW PROCESS

The application for this Project was submitted in June 2019. The Project has been considered by all appropriate agencies within and outside of the City, which part of the standard review process with these types of development applications. The Project was reviewed by the Project Review Staff Committee as required by the Municipal Code. Following subsequent revisions and reviews by staff, the Project was determined to be complete with a recommendation to approve the Project as designed and conditioned.

NOTIFICATION

Public notice was sent to all property owners of record within 600’ 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

Staff has coordinated with outside agencies where applicable, as is the standard review process with these types of development applications.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission take the following actions:

1. That the Planning Commission **APPROVE** Resolution No. 2020-44, attached hereto, **RECOMMENDING** that the City Council:

    1. **APPROVE** the Initial Study/Mitigated Negative Declaration prepared for General Plan Amendment PEN19-0206, Zone Change PEN19-0207, and Conditional Use Permits PEN19-0204 and PEN19-0205 on file with the Community Development Department, incorporated herein by this reference which was completed in compliance with CEQA and the CEQA Guidelines; and reflects that the Planning Commission reviewed and considered the information contained in the Initial Study/ Mitigated Negative Declaration, and exercised its independent judgment and analysis of the proposed Project's potential environmental impacts; and

    2. **ADOPT** the Mitigation Monitoring and Reporting Program prepared for the proposed Project which includes, General Plan Amendment PEN19-0206, Zone Change PEN19-0207, and Conditional Use Permits PEN19-0204 and PEN19-0205 pursuant to CEQA and the CEQA Guidelines.

2. That the Planning Commission **APPROVE** Resolution No. 2020-45, attached hereto, **RECOMMENDING** that the City Council:

    1. **APPROVE** PEN19-0206 General Plan Amendment based on the Recitals, Evidence contained in the Administrative Record and Findings as set forth in Resolution No. 2020-45.

3. That the Planning Commission **APPROVE** Resolution No. 2020-46, attached hereto, **RECOMMENDING** that the City Council:

    1. **APPROVE** PEN19-0207 Change of Zone based on the Recitals, Evidence contained in the Administrative Records and Findings as set forth in Resolution No. 2020-46.

4. That the Planning Commission **APPROVE** Resolution No. 2020-47, attached hereto, **RECOMMENDING** that the City Council:

    1. **APPROVE** PEN19-0204 and PEN19-0205 Conditional Use Permits, based on the Recitals, Evidence contained in the Administrative Record and Findings as set forth in Resolution No. 2020-47.

Prepared by:
Julia Descoteaux
Associate Planner

Approved by:
Patty Nevins
Planning Official

ATTACHMENTS

1. Resolution No. 2020-44_IS/MND
2. Exhibit A to Resolution No. 2020-44 Initial Study MND
3. Exhibit B to Resolution No. 2020-44 Notice of Intent
4. Exhibit C to Resolution No. 2020-44 Mitigated Negative Declaration
5. Exhibit D to Resolution No. 2020-44 2020-44 MMRP
6. Resolution No. 2020-45 General Plan Amendment
7. Resolution No. 2020-46 Change of Zone
8. Resolution No. 2020-47_CUP
9. Exhibit A to Resolution No. 2020-47 PEN19-0204 Conditions of Approval
10. Exhibit B to Resolution No. 2020-47 PEN19-0205 Conditions of Approval
11. Project Plans
12. Aerial Map
13. Mailing Notice - 600 Foot
14. 600 Foot Radius Map

RESOLUTION NUMBER 2020-44

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY, CALIFORNIA, RECOMMENDING THAT THE CITY COUNCIL ADOPT A MITIGATED NEGATIVE DECLARATION AND MITIGATION MONITORING PLAN FOR THE PERRIS AND DRACAEA COMMERCIAL PROJECT LOCATED ON THE NORTHEAST CORNER OF PERRIS BOULEVARD AND DRACAEA AVENUE (APNs 479-120-027, -029, -042, AND -043)

WHEREAS, the City of Moreno Valley ("City") is a general law city and a municipal corporation of the State of California, and the lead agency for the preparation and consideration of environmental documents for projects that are subject to requirements of the California Environmental Quality Act (CEQA[1]) and CEQA Guidelines[2]; and

WHEREAS, Cadence Acquisition LLC., ("Developer") is seeking approval for the development of a commercial project to include a drive through restaurant with outdoor seating, a fueling station and convenience store with beer and wine sales (off-site consumption only), with a General Plan Amendment and a Change of Zone required ("Project") for property located at the northeast corner of Perris Boulevard and Dracaea Avenue (APNs 479-120-027, -029, -042, and -043) ("Site"); and

WHEREAS, Planning Division Staff completed an environmental assessment for the proposed Project, and, based on the assessment, decided to prepare an Initial Study ("IS") and Mitigated Negative Declaration ("MND") in accordance with Section 6 (ND Procedures) of the City's Rules and Procedures for the Implementation of the California Environmental Quality Act and the requirements of the CEQA Guidelines Sections 15070 – 15075 and thereafter a Notice of Intent to Adopt a Mitigated Negative Declaration was duly noticed and circulated for public review for a period of 20 days commencing beginning October 23, 2020, ending November 12, 2020; and

WHEREAS, in conformance with CEQA, a Mitigation Monitoring Plan ("MMP") that includes a program for reporting on and monitoring Project mitigation measures was prepared for the proposed Project and circulated with the Mitigated Negative Declaration; and

WHEREAS, on November 12, 2020 a duly noticed public hearing was conducted by the Planning Commission to consider a recommendation to the City Council that the Mitigated Negative Declaration and the Mitigation Monitoring Plan and approval of the proposed Project at which time the Planning Commission considered the IS, Mitigated Negative Declaration and the Mitigation Monitoring Plan, together with any comments received during the public review process and the responses prepared; and

[1] Public Resources Code §§ 21000-21177
[2] 14 California Code of Regulations §§15000-15387

WHEREAS, at the conclusion of the public hearing, in the exercise of its own independent judgment, the Planning Commission determined that the Mitigated Negative Declaration and the Mitigation Monitoring Plan were appropriate as all environmental impacts of the Project with mitigation measures are below a level of significance and there is no substantial evidence supporting a fair argument that the Project will have a significant effect on the environment.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Recitals and Exhibits

That the foregoing Recitals and attached exhibits are true and correct and are hereby incorporated by this reference.

Section 2. Evidence

That the Planning Commission has considered all of the evidence submitted into the administrative record for the Mitigated Negative Declaration and Mitigation Monitoring Plan, including, but not limited to, the following:

(a) Initial Study prepared for the proposed Project, attached hereto as Exhibit A;
(b) Notice of Intent to Adopt a Mitigated Negative Declaration, attached hereto as Exhibit B;
(c) Mitigated Negative Declaration, attached hereto as Exhibit C;
(d) Mitigation Monitoring Plan, attached hereto as Exhibit D;
(e) Staff Report prepared for the Planning Commission's consideration and all documents, records and references related thereto, and Staff's presentation at the public hearing;
(f) Testimony and/or comments from all persons that was provided in written format or correspondence, at, or prior to, the public hearing.

Section 2. Findings

That based on the content of the foregoing Recitals and the Evidence contained in the Administrative Record as set forth above, the Planning Commission makes the following findings:

(a) That the City has independently reviewed, analyzed, and considered the Mitigated Negative Declaration and Mitigation Monitoring Plan, and the whole record before it (including, the Initial Study and comments received) and, based on the foregoing, the Planning Commission hereby finds that all environmental impacts of the proposed Project, with mitigation measures, are below a level of significance and there is no substantial evidence

supporting a fair argument that the Project will have a significant effect on the environment.

(b) That the Mitigated Negative Declaration and Mitigation Monitoring Plan have been completed in compliance with CEQA and are consistent the City's Rules and Procedures for the Implementation of the California Environmental Quality Act.

(c) That the Mitigated Negative Declaration and Mitigation Monitoring Plan represent the independent judgment and analysis of the City as lead agency for the proposed Project.

(d) That the Mitigated Negative Declaration and Mitigation Monitoring Plan are adequate to serve as the required CEQA environmental documentation for the proposed Project.

Section 3. Adoption

That based on the foregoing Recitals, Administrative Record and Findings, the Planning Commission hereby recommends that the City Council adopt the Negative Declaration attached hereto as Exhibit C and the Mitigation Monitoring Plan attached hereto as Exhibit D.

Section 4. Repeal of Conflicting Provisions

That all the provisions as heretofore adopted by the Planning Commission that are in conflict with the provisions of this Resolution are hereby repealed.

Section 5. Severability

That the Planning Commission declares that, should any provision, section, paragraph, sentence or word of this Resolution be rendered or declared invalid by any final court action in a court of competent jurisdiction or by reason of any preemptive legislation, the remaining provisions, sections, paragraphs, sentences or words of this Resolution as hereby adopted shall remain in full force and effect.

Section 6. Effective Date

That this Resolution shall take effect immediately upon the date of adoption.

Section 7. Certification

That the Secretary of the Planning Commission shall certify to the passage of this Resolution.

PASSED AND ADOPTED THIS _____ day of _____, 2020.

CITY OF MORENO VALLEY
PLANNING COMMISSION

_____
Patricia Korzec, Chairperson

ATTEST:

_____
Patty Nevins, Planning Official

APPROVED AS TO FORM:

_____
Steven B. Quintanilla,
Interim City Attorney

Exhibits:
Exhibit A: Initial Study
Exhibit B: Notice of Intent to Adopt a Mitigated Negative Declaration
Exhibit C: Negative Declaration
Exhibit D: Monitoring Mitigation Plan

Exhibit A

INITIAL STUDY

Exhibit B

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

Exhibit C

NEGATIVE DECLARATION

Exhibit D

MITIGATION MONITORING PLAN

CITY OF MORENO VALLEY

DRAFT INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR PERRIS AND DRACAEA COMMERCIAL RETAIL

Perris and Dracaea Commercial Retail (City Case No. PPA18-0018)

October 19, 2020

Lead Agency
CITY OF MORENO VALLEY
14177 Frederick Street
Moreno Valley, California 92552

Prepared By
LSA ASSOCIATES, INC.
1500 Iowa Avenue, Suite 200
Riverside, California 92507
(951) 781-9310

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MITIGATED NEGATIVE DECLARATION

Project Name: Perris and Dracaea Commercial Retail

Project Location: The project is located in Township 3S, Range 3W, Section 8 of the Sunnymead, CA United States Geological Survey 7.5-minute quadrangle map of the San Bernardino Base Meridian. The project site is located on the northeast corner of Perris Boulevard and Dracaea Avenue in the City of Moreno Valley (City), Riverside County. The project site is currently vacant. The site consists of four parcels, Assessor's Parcel Number (APN) 479-120-027, 029, 042, and 043. The parcels are approximately 4,000 feet south of State Route 60 (SR-60) and Interstate 215 (I-215) is approximately 3.5 miles west of the project site (Figure 1 depicts the regional and project location and Figure 2 depicts the existing setting). The March Air Reserve Base is located approximately 2.75 miles southwest of the project site.

Findings: It is hereby determined that, based on the information contained in the attached Initial Study, the project would not have a significant adverse effect on the environment.

Mitigation measures necessary to avoid the potentially significant effects on the environment are included in the attached Initial Study, which is hereby incorporated and fully made part of this Mitigated Negative Declaration. The City of Moreno Valley has hereby agreed to implement each of the identified mitigation measures, which would be adopted as part of the attached Mitigation Monitoring and Reporting Program.

INITIAL STUDY (IS) FOR PERRIS AND DRACAEA COMMERCIAL RETAIL

BACKGROUND INFORMATION AND PROJECT DESCRIPTION:

1. **Project Case Number(s):** PPA18-0018

2. **Project Title:** Perris and Dracaea Commercial Retail

3. **Public Comment Period:**

4. **Lead Agency:** City of Moreno Valley
   Julia Descoteaux, Planning Department
   14177 Frederick Street
   Moreno Valley, California 92552
   (951) 413-3209
   juliad@moval.org

5. **Documents Posted At:** Moreno Valley City Hall between 7:30 AM and 5:30 PM Monday through Thursday. Contact Julia Descoteaux, Planning Department
   14177 Frederick Street
   Moreno Valley, California 92552
   (951) 413-3209
   juliad@moval.org

6. **Prepared By:** Dionisios Glentis, Senior Environmental Planner
   LSA ASSOCIATES, INC.
   1500 Iowa Avenue, Suite 200
   Riverside, California 92507
   (951) 781-9310
   dionisios.glentis@lsa.net

7. **Project Sponsor:**

Applicant/Developer
Joey Ly, TAIT & Associates, Inc., for

Cadence Capital Investments, LLC
6400 Fiddlers Green Circle, Suite 1820
Green Village, Colorado 80111
714-560-8673
jly@tait.com

Property Owner
John David Monjazi and Jonathan J. Monjazi

P.O. Box 4541 Oceanside, CA 92052

jmonjazi@gmail.com and
johnmonjazi@gmail.com

8. **Project Location:** The project is located in Township 3S, Range 3W, Section 8 of the Sunnymead, CA United States Geological Survey 7.5-minute quadrangle map of the San Bernardino Base Meridian. The project site is located on the northeast corner of Perris Boulevard and Dracaea Avenue in the City of Moreno Valley (City),

Riverside County. The project site is currently vacant. The site consists of four parcels, Assessor's Parcel Number (APN) 479-120-027, 029, 042, and 043. The parcels are approximately 4,000 feet south of State Route 60 (SR-60) and Interstate 215 (I-215) is approximately 3.5 miles west of the project site (Figure 1 depicts the regional and project location and Figure 2 depicts the existing setting). The March Air Reserve Base is located approximately 2.75 miles southwest of the project site.

9. **General Plan Designation:** Existing: Residential/Office; Proposed: Commercial

10. **Specific Plan Name and Designation:** Not applicable.

11. **Zoning:** Existing: Office Commercial (OC) District: The primary purpose of the office commercial (OC) district is to provide for the establishment of business, corporate and administrative office, as well as commercial services which are supportive to major business developments. Retail facilities which support the office developments are permitted, subject to limitations specified in this section.

Proposed: Community Commercial (CC) District: The primary purpose of the community commercial (CC) district is to provide for the general shopping needs of area residents and workers with a variety of business, retail, personal and related or similar services. (Ord. 590 § 2, 2001; Ord. 359, 1992).

The project includes an amendment to the General Plan land use designation from Residential/Office to Commercial and a zone change from Office Commercial (OC) District to Community Commercial (CC) District in order to facilitate the proposed development. The project site is located at the northeast corner of a major intersection (Perris Boulevard and Dracaea Avenue) in proximity to existing commercial uses at the northwest and southwest corners of this intersection. Due to the project site's prominent location at the northeast corner of Perris Boulevard and Dracaea Avenue, the proposed development would incorporate seamlessly with the existing development pattern of the neighborhood, and the proposed service station, convenience store, and drive-through restaurant would serve primarily the residential uses in the immediate vicinity of the site and provide them with the convenience of availing essential amenities close to home.

12. **Surrounding Land Uses and Setting:**

	Land Use	General Plan	Zoning
Project Site	Vacant	Existing: Residential/Office; Proposed: Commercial	Existing: Office Commercial (OC) District; Proposed: Community Commercial (CC) District
North	single-family residential uses	Residential/Office	Office (O) District
South	single-family residential uses and vacant property	Residential/Office	Office (O) District
East	single-family residential uses	Residential: Max.15 du/ac	Multi-family (R15) District
West	single-family residential and commercial uses	Commercial	Community Commercial (CC) District

13. **Description of the Site and Project:**

Environmental Setting

The project site is located at the northeast corner of Perris Boulevard and Dracaea Avenue and is substantially surrounded by commercial and residential uses. The site itself is vacant and contains ruderal vegetation and four ornamental trees. The property has been historically plowed or disked for weed abatement compliance. A residence constructed prior to 1930 was formerly located within the project boundaries. The residence was demolished prior to 2002, and only the concrete slab foundation, utility pole, and scattered refuse remain. Refer to Figure 2.

Project Description

The project proposes the construction of a drive-through restaurant with outdoor patio space, a convenience store, and service station on an approximate 2-acre site. Proposed on-site structures include a 4,088-square foot convenience store, a 36-foot by 86-foot canopy with 6 multiple product dispensers (MPD) for fueling up to 12 vehicles, two underground storage tanks located west of the canopy, and a 3,000 square foot drive through restaurant with a 400 square foot outdoor patio. The proposed project includes 18 auto parking stalls, 1 of which is designed in accordance with the Americans with Disabilities Act (ADA), for the convenience store and 32 auto parking stalls, 2 of which are ADA, 2 of which are electric vehicle, and 1 which is designated for clean air vehicles, for the drive through restaurant (total of 52 parking stalls throughout the site). The project also includes 2 trash enclosure facilities and bicycle parking located north of the canopy (see Figure 3, Site Plan). The proposed convenience store would be located on the south half of the site with the entrance facing west toward the 12 fueling stations. The proposed drive through restaurant could operate 24 hours per day and is proposed on the north half of the site with the entrance facing south. The project proposes a 6-foot decorative perimeter wall on the northern and eastern boundaries of the site. The site is generally level and is at an elevation of approximately 1,600 feet above mean sea level (amsl).

The City's General Plan Land Use Map designates the project site as Residential/Office and the Zoning as Office Commercial (OC) District, neither of which allow the proposed project's land uses. Therefore, the project would include a General Plan Amendment to change the land use from Residential/Office to Commercial and a Change of Zone from Office Commercial (OC) District to Community Commercial (CC) District.

Ornamental trees are proposed throughout the project site along the perimeter. The site includes other facilities such as two new transformers, a clean air separator (to control gasoline storage tank pressure), and an air/water dispenser (refer to Figure 3, Site Plan). Grading activities include 100 cubic yards (CY) of soils to be cut and 2,300 CY of soils to be fill for a net fill of 2,200 CY.

Ingress/egress to the project site is provided from three driveways; one from Perris Boulevard in the center of the site, one from Dracaea Avenue at the southern portion of the site, and one from Atwood Avenue approximately 320 feet north of the site. The internal drive aisle is designed to allow for semi-trucks delivering fuel to the site to enter from Perris Boulevard and exit the site to Dracaea Avenue. In addition, the

project proposes several Project Design Features (PDFs) that include select transportation facility improvements along the project frontage as detailed below:[1]

- Remove the existing two-way-left-turn-lane on Perris Boulevard, from south of Pedro's Taco Shop Driveway to Dracaea Avenue;
- Replace the two-way-left-turn-lane with the raised median along the entire project frontage on Perris Boulevard extending north of the intersection of Perris Boulevard/Atwood Avenue up to south of the Pedro's Taco Shop driveway;
- Create left-turn pockets in the raised median for the northbound and southbound movements at the intersection of Perris Boulevard/Atwood Avenue, with storage lengths of 150 feet and 125 feet, respectively;
- Extend the southbound left-turn pocket at the intersection of Perris Boulevard/Dracaea Avenue by 5 feet; and
- Add a bus bay on the east side of Perris Boulevard, north of the intersection of Perris Boulevard/Auto Center Driveway-Project Driveway 1.

Due to the proposed raised median, Auto Center Driveway will operate as a right-in-right-out driveway, and eastbound and westbound left-turn and through movements will be prohibited at the intersection of Perris Boulevard/Atwood Avenue under with-project conditions.

14. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

The City sent the required notifications to interested California Native American tribes pursuant to Assembly Bill (AB) 52 (specifically California Public Resources Code 21080.3.1) and Senate Bill (SB) 18 (specifically California Government Code 65352.4). Eight entities representing seven Native American tribes were notified in accordance with AB 52, while nine entities representing eight Native American tribes were notified in accordance with SB 18.

To date, three tribes, the Pechanga Band of Luiseño Indians (Pechanga), the Soboba Band of Luiseño Indians (Soboba), and the Rincon Band of Luiseño Indians (Rincon) have requested formal consultation with the City, while the Agua Caliente Band of Cahuilla Indians (Aqua Caliente) requested additional information on the project prior to determining if consultation is necessary. Two additional tribes, the Morongo Band of Mission Indians (Morongo) and the San Manuel Band of Mission Indians (San Manuel) informed the City they do not wish to consult on this project. Five entities representing three tribes, the Cahuilla Band of Indians, the Los Coyotes Band of Cahuilla Mission Indians, the Desert Cahuilla Indians/Torres Martinez, the

[1] LSA Associates, Inc. *Transportation Impact Analysis for the Perris/Dracaea Commercial Project*. Page 15 and Figures 4-3 and 4-4. September 2020. (Appendix E).

Santa Rosa Band of Mission Indians, and the Serrano Nation of Mission Indians did not respond to the City.

All of the tribal correspondences pursuant to AB 52 and SB 18 occurred October and November of 2019, and consultation is ongoing between the City and Pechanga, Soboba, and Rincon, while the City continues to engage the Aqua Caliente as appropriate.

NOTE: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3 (c) contains provisions specific to confidentiality.

15. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**

    a. City of Moreno Valley: approval of General Plan Amendment, Change of Zone, and Tentative Parcel Map.

    b. City of Moreno Valley: approval of Grading and Building Permits.

    c. Santa Ana Regional Water Quality Control Board: National Pollutant Discharge Elimination System (NPDES) authorization.

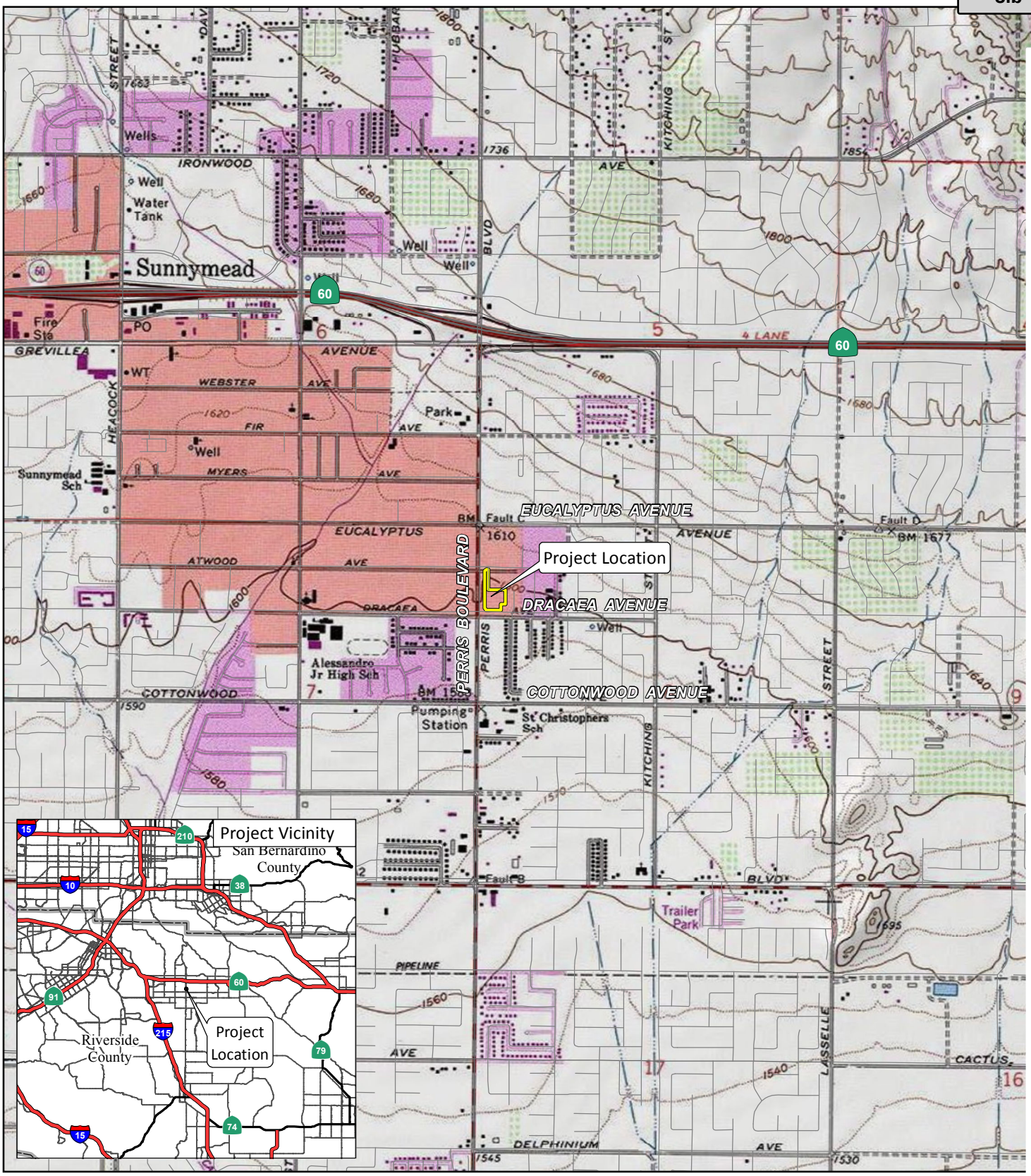
16. **Other Technical Studies Referenced in this Initial Study (Provided as Appendices):**

    None

17. **Acronyms:**

ADA	American with Disabilities Act
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
AQMP	Air Quality Management Plan
CEQA	California Environmental Quality Act
CIWMD	California Integrated Waste Management District
CMP	Congestion Management Plan
DTSC	Department of Toxic Substance Control
DWR	Department of Water Resources
EIR	Environmental Impact Report
EMWD	Eastern Municipal Water District
EOP	Emergency Operations Plan
FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program

GIS	Geographic Information System
GHG	Greenhouse Gas
GP	General Plan
HCM	Highway Capacity Manual
HOA	Home Owners' Association
IS	Initial Study
LHMP	Local Hazard Mitigation Plan
LOS	Level of Service
LST	Localized Significance Threshold
MARB	March Air Reserve Base
MARB/IPA-	March Air Reserve Base/Inland Port Airport
MSHCP	Multiple Species Habitat Conservation Plan
MVFP	Moreno Valley Fire Department
MVPD	Moreno Valley Police Department
MVUSD	Moreno Valley Unified School District
MWD	Metropolitan Water District
NCCP	Natural Communities Conservation Plan
NPDES	National Pollutant Discharge Elimination System
OEM	Office of Emergency Services
OPR	Office of Planning & Research, State
PEIR	Program Environmental Impact Report
PW	Public Works
RCEH	Riverside County Environmental Health
RCFCWCD	Riverside County Flood Control & Water Conservation District
RCP	Regional Comprehensive Plan
RCTC	Riverside County Transportation Commission
RCWMD	Riverside County Waste Management District
RTA	Riverside Transit Agency
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
SAWPA	Santa Ana Watershed Project Authority
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCH	State Clearinghouse
SKRHCP	Stephens' Kangaroo Rat Habitat Conservation Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
USFWS	United States Fish and Wildlife
USGS	United States Geologic Survey
VMT	Vehicle Miles Traveled
VVUSD	Valley Verde Unified School District
WQMP	Water Quality Management Plan
WRCOG	Western Riverside Council of Government



LSA

FIGURE 1

0 1000 2000
FEET

Perris Boulevard and Dracaea Avenue Commercial Reta

Regional and Project Location

SOURCE: USGS 7.5' Quad - Sunnymead (1980); ESRI Streetmap, 2013.

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LSA

LEGEND

Project Site

FIGURE 1

N

0 75 150

FEET

Perris Boulevard and Dracaea Avenue Commercial Retai

Existing Setting

SOURCE: Google (2019)

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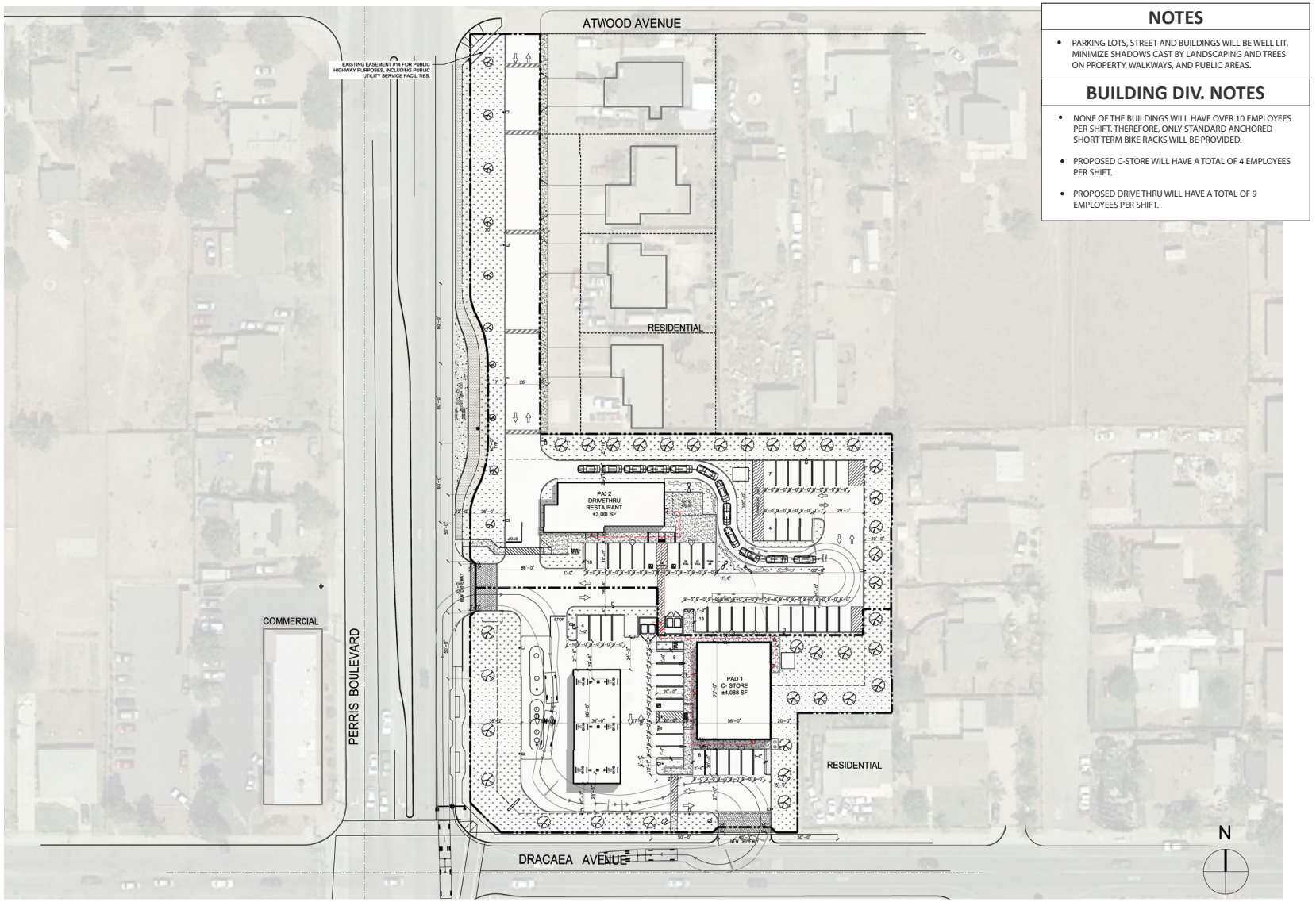

LSA

FIGURE 3

N

0 60 120
FEET

SOURCE: Cadence Capital Investmtents LLC; June 2020

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Perris Boulevard and Dracaea Avenue Commercial Retail

Conceptual Site Plan

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture & Forestry Resources	☐	Air Quality
☐	Biological Resources	☐	Cultural Resources	☐	Energy
☐	Geology & Soils	☐	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials
☐	Hydrology & Water Quality	☐	Land Use & Planning	☐	Mineral Resources
☐	Noise	☐	Population & Housing	☐	Public Services
☐	Recreation	☐	Transportation	☐	Tribal Cultural Resources
☐	Utilities & Service Systems	☐	Wildfire	☐	Mandatory Findings of Significance

DETERMINATION (To be completed by the Lead Agency):

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Julia Descoteaux
Printed Name

10/19/2020
Date

City of Moreno Valley
For

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a Lead Agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the Lead Agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The Lead Agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or another CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analyses Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where

appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources. A source list should be attached, and other sources used, or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and

   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS – Except as provided in Public Resources Code §21099 – Modernization of Transportation Analysis for Transit-Oriented Infill Projects – **Would the project:**				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐

Response:

Less than Significant Impact. Scenic vistas are publicly accessible viewpoints that provide views of areas from the project site and only the project site that exemplify a community's environment. Scenic vistas within the City include Box Springs Mountains and Reche Canyon area to the north, the "Badlands" to the east, and the Mount Russel area to the south.[2] The only scenic vista visible from the project site is the view of the Box Springs Mountains to the north. Viewer sensitivity to a project varies depending on familiarity with existing views, the sense of ownership of these views, and the activities viewers perform in relationship to the views. Sensitive visual receptors in the project area include viewers from residential areas as residential viewers develop a sense of ownership, belonging, and familiarity with the existing visual setting. Viewers from the commercial uses in the project area are considered to be less sensitive to visual change as they are only present during business hours, are generally preoccupied with business operations, and have limited views from a lack of windows facing scenic vistas.

The project site is located on the northeast corner of Perris Boulevard and Dracaea Avenue. Surrounding land uses include single-family residential uses adjacent to the north and east, single-family residential and commercial uses to the west across Perris Boulevard, and single-family residential uses and vacant property to the south across Dracaea Avenue (Figure 2). Commercial uses including a service station and convenience store are located across Perris Boulevard to the west and southwest, and single-family residences and commercial uses are located to the northwest. Wood fencing and block walls exist between the single-family residential homes located to the east and north of the project site, blocking scenic vistas on the first floor of the single-family residential homes as they are at the same elevation as the project site. Nearby structures with two stories would not be affected by the project, as the maximum height of structures on the project site is 30 feet. Views of the Box Spring Mountains to the north of the project site may be intermittently blocked while traveling along Dracaea Avenue due to the placement of ornamental trees in the landscaped areas north of the street and the proposed new structures on the project site. While the development of the proposed project would potentially block some views of Box Spring Mountains to the north of the site, it would not be considered a substantial adverse effect because the views would only be blocked intermittently. Overall, the development of the proposed project would have a **less than significant** impact on scenic vistas due to its limited size and height, and no mitigation is required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐

Response:

Less than Significant Impact. The project site is currently vacant. Two City-designated scenic highways are located within the City which includes State Route 60 (SR-60) and Moreno Beach Drive. State Route 60 is located approximately 0.75 mile north of the project site while Moreno Beach Drive is located approximately 3 miles east of the project site. Although SR-60 is proximate to the project site, it is not an officially designated State scenic highway.[3] The project site contains a few scattered trees, none of which are considered to be scenic resources. No rock outcroppings or historic buildings are present on the site. Development of the project would not result in damage to any scenic resources. Therefore, the development of the Project will have a **less than significant** impact related to scenic resources within a state scenic highway, and no mitigation is required.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project	☐	☐	☒	☐

[2] City of Moreno Valley. *City of Moreno Valley General Plan*. Chapter 7 – Conservation. July 11, 2006.

[3] California Scenic Highway Mapping System. 2011. "Riverside County." http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/. (Accessed June 2020).

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				

Response:

Less than Significant Impact. The construction phase of the project would introduce the use of construction equipment such as excavators, graders, bulldozers, etc. The presence of the construction equipment, as well as the construction activities would temporarily alter the scenic quality of the project site. Construction staging areas, including earth stockpiling, storage of equipment and supplies, and related activities would contribute to a change in scenery at the project site, which would be a short-term visual impact. Because construction activities would be temporary, scenic quality impacts during construction would be **less than significant**. No mitigation is required.

The proposed project features a variety of architectural elements including façade accents and provides variation in wall planes at the proposed restaurant that serve to avoid a monotonous appearance of the building. This variation would create shadow lines at various parts of the day. It is anticipated that the buildings would utilize a combination of colors and/or materials to establish a mix of textural elements while maintaining visual interest.

The proposed landscaping would replace the vacant weedy field with a consistent and integrated vegetation palette. Landscaping on site would be provided in accordance with the City's Municipal Code Chapter 19.17.030 (Landscape and Water Efficiency Requirements), which requires the installation of landscaping on-site. The project would comply with these requirements by using landscaping throughout the site and visible to the public from the street. The project will also incorporate special pavements (accent colors, textures, and patterns) to indicate building entrances and pedestrian pathways.

Although the visual characteristic of the project site would change, the proposed project would replace the existing vacant parcels with an attractive, well-designed development using varied architectural elements and massing, landscaping, and color combinations. In addition, the project would be designed and constructed per applicable City Municipal Code and General Plan standards. Therefore, no demonstrable negative aesthetic effect to the existing visual character or quality of the project site or surroundings is anticipated to result. Impacts would be **less than significant,** and mitigation is not required.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Response:

Less than Significant Impact. The project site presently does not contain any source of light. Sources of light in the area include street lighting and signal lighting along Perris Boulevard and Dracaea Avenue, as well as from the adjacent residential and commercial uses surrounding the project site. Glare can be both a daytime occurrence resulting from light reflecting off reflective surfaces affecting viewers and a nighttime occurrence from light from headlights on nearby moving vehicles and traffic lights.

At night, the project's interior and exterior building lights and landscape lighting would be visible from the adjacent residential uses, and to a lesser extent, from the surrounding public streets. However, these light sources would not have a significant impact on the night sky, as they would not exceed existing background light levels already present within the surrounding area. In addition, new construction shall comply with the City of Moreno Valley's General Plan and Municipal Code requirements for lighting (Chapter 9.08.100 Lighting). Adherence to the City's Municipal Code requirements would ensure that project-related lighting impacts would be **less than significant**. No mitigation is required.

Sources of glare as a result of project implementation include reflective building materials and vehicles parked within and traveling to and from the project site. The amount of glare would depend on the location of the reflective surfaces and the direction of the sun. Any glare produced by the reflective surfaces would be temporary, as the location of the sun would be changing throughout the day. Additionally, the City's Design Review process includes consideration of material composition and colors to reduce potential for substantial glare from the proposed on-site structures. Therefore, impacts from glare would be **less than significant.** No mitigation is required.

Sources:

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

1. Moreno Valley General Plan, adopted July 11, 2006
   - Chapter 2 – Community Development Element – Section 2.3 – Community Design
   - Chapter 7 – Conservation Element – Section 7.8 – Scenic Resources
     - Figure 7-2 – Major Scenic Resources
2. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
   - Section 5.11 – Aesthetics
     - Figure 5.11-1 – Major Scenic Resources
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
   - Section 9.10.110 – Light and Glare of the Moreno Valley Municipal Code.
   - Chapter 9.16 – Design Guidelines
   - Section 9.17.030 G – Heritage Trees

II. AGRICULTURE AND FOREST RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest protocols adopted by the California Air Resources Board.

Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒

Response:
No Impact. The California Department of Conservation, Farmland Mapping and Monitoring Program (FMMP) compile important farmland maps pursuant to the provisions of Section 65570 of the California Government Code. The maps are updated every two years using a computer mapping system, aerial imagery, public review, and field reconnaissance. According to the FMMP, the project site lies within "Urban and Built Up Land."[4] The project site and surrounding area contain no designated Farmland. Therefore, no Prime, Unique, or Statewide Importance Farmland would be converted, and **no impacts** would occur. No mitigation is required.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

Response:
No Impact. The California Land Conservation Act of 1965 – or commonly known as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space uses. In return, landowners are given a lower property tax assessment. The project site does not contain land that is enrolled in a Williamson Act contract.[5] According to the City of Moreno Valley's Zoning Map, the project site is currently zoned for "Office Commercial (OC)." Because the project site not part of a Williamson Act contract, nor is the site zoned for agricultural uses, **no impact** associated with this issue would occur. No mitigation is required.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland	☐	☐	☐	☒

[4] California Department of Conservation, Farmland Mapping and Monitoring Program. *Riverside County Important Farmland* 2016. https://www.conservation.ca.gov/dlrp/fmmp/Pages/Riverside.aspx (Accessed June 4, 2019).

[5] California Department of Conservation, Division of Land Resource Protection. *Riverside County Williamson Act FY 2015/2016, Sheet 1 of 3.* ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Riverside_w_15_16_WA.pdf. (Accessed June 4, 2019).

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Production (as defined by Government Code section 51104(g))?				

Response:
No Impact. The project site is currently vacant and undeveloped. The site does not contain any forest land or timberland, nor is it zoned for such uses. Therefore, the project will have **no impact** on forest land, timberland, or timberland zoned Timberland Production. No mitigation is required.

d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

Response:
No Impact. Please refer to Checklist Response 2.c.

e) Involve other changes in the existing environment which, due to their location or nature, could result in the conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Response:
No Impact. As noted above, the project site is currently vacant and is not utilized for agricultural production or timberland production. Neither the project site nor adjacent areas are being used for or zoned for farmland or forest land. Therefore, the development of the proposed project will not result in the conversion of farmland to non-agricultural use or forest land to non-forest uses. No impact would occur. No mitigation is required.

Sources:

1. Moreno Valley General Plan, adopted July 11, 2006
   - Chapter 7 – Conservation Element – Section 7.7 – Agricultural Resources
2. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
   - Section 5.8 – Agricultural Resources
     - Figure 5.8-1 – Important Farmlands
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code

III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. **Would the project:**				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐

Response:
Less than Significant Impact. The project site is located in the South Coast Air Basin (Basin), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The Basin includes all of Orange County and portions of Los Angeles, Riverside, and San Bernardino Counties. The SCAQMD adopted an Air Quality Management Plan (AQMP), the main purpose of which is to describe air pollution control strategies to be taken by a city, county, or region classified as a nonattainment area in order to bring the area into compliance with federal and state air quality standards. A nonattainment area is considered to have air quality worse than the National Ambient Air Quality Standards (NAAQS) as defined in the Federal Clean Air Act. The Basin is in nonattainment for the federal and state standards for ozone (O_3) and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) and in nonattainment for the state standards for particulate matter less than 10 microns in diameter (PM_{10}) and nitrogen dioxide (NO_2). The Basin is in attainment/maintenance/unclassified status for all other federal and state criteria pollutant standards.

Consistency with the 2016 AQMP for the Basin means that a project will be consistent with the goals, objectives, and assumptions in the respective plan to achieve the federal and state air quality standards. Pursuant to the methodology provided in Chapter 12 of the 1993 SCAQMD CEQA Air Quality Handbook, consistency with the Basin 2016 AQMP is affirmed when a project (1) does not increase the frequency or severity of an air quality standards violation or cause a new violation; and (2) is consistent with the growth assumptions in the AQMP. For the proposed project to be consistent with the AQMP adopted by the SCAQMD, the pollutants emitted from the project should not exceed the SCAQMD daily threshold or

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

cause a significant impact on air quality, or the project must already have been included in the AQMP projections. Additionally, if feasible mitigation measures are implemented and shown to reduce the impact level from significant to less than significant, a project may be deemed consistent with the AQMP.

The proposed project would construct a 3,000-square foot drive through restaurant and a 4,088-square foot convenience store with 12 fuel pumps. The project site is designated as a Residential/Office land use in the City's General Plan Land Use Map as Office Commercial and is zoned as Office Commercial (OC) District. The proposed land uses are not allowed under the existing zoning designation of the site; therefore, the project includes a General Plan Amendment to designate the project site Commercial and a Change of Zone to Community Commercial (CC) District.

The project Applicant indicates the project is expected to generate up to 39 employees; up to 27 for the restaurant and up to 12 for the convenience store/service station.[6] When compared to the planned use of the site for residential/office uses, the proposed changes in the land use designation would not substantially alter the housing and employment forecast in the City already included in the AQMP assumptions. As such, the proposed project is not anticipated to exceed the AQMP assumptions for the project site. In addition, as discussed below in Checklist Response 3.b, construction and operation of the project would not generate criteria air pollutants that would exceed SCAQMD thresholds of significance. Based on the consistency analysis presented above, the proposed project would not conflict with or obstruct implementation of the 2016 AQMP. Impacts would be **less than significant**, and mitigation is not required.

b) 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?	☐	☐	☒	☐

Response:

Less than Significant Impact. The following analysis analyzes both short-term impacts caused by construction activities and long-term impacts caused by occupancy and operation of the project as proposed.[7]

Short-Term Impacts. During construction, short-term degradation of air quality may occur due to the release of particulate emissions generated by grading, paving, building, and other activities. Emissions from construction equipment are also anticipated and would include CO, NOx, ROG, directly-emitted particulate matter ($PM_{2.5}$ and PM_{10}), and Toxic Air Contaminants (TACs) such as diesel exhaust particulate matter (DPM).

Construction-related effects on air quality from the proposed project would be greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. The SCAQMD has established Rule 403: Fugitive Dust, which would require the applicant to implement measures that would reduce the amount of particulate matter generated during the construction period.

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO_2, NOx, VOCs and some soot particulate ($PM_{2.5}$ and

[6] The restaurant and convenience store/gas station are assumed to operate 24 hours per day, so the 39 employees would be divided in to three 8-hour shifts, with approximately 13 employees on site at a time (9 at the restaurant and 4 at the convenience store).

[7] LSA Associates, Inc. *Air Quality and Greenhouse Gas Analysis for the Commercial Retail Project at Perris Boulevard and Dracaea Avenue in the City of Moreno Valley, California.* May 4, 2020. (Appendix A).

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

PM_{10}) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles idle in traffic. These emissions would be temporary in nature and limited to the immediate area surrounding the construction site.

Construction emissions were estimated for the project using the California Emissions Estimator Model (CalEEMod) version 2016.3.2, consistent with SCAQMD recommendations. For purposes of this analysis, the construction schedule was assumed to be approximately six months. The proposed project will be constructed modular portable buildings and the majority of the modular building manufacturing and interior painting will be completed off site. Other precise details of construction activities are unknown at this time; therefore, default assumptions (e.g., construction duration and fleet activities) from CalEEMod were assumed. As shown in Table 3.A, construction emissions would not exceed daily SCAQMD thresholds, so impacts are **less than significant** and mitigation is not required (see Appendix A).

Table 3.A: Estimated Construction Emissions

Construction Phase	Peak Daily Pollutant Emissions (lbs/day)					
	VOC	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	9.98	24.74	16.87	0.05	2.37	1.12
SCAQMD Thresholds	**75.00**	**100.00**	**550.00**	**150.00**	**150.00**	**55.00**
Significant Emissions?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Table A, LSA, May 2020 (Appendix A).

CO = carbon monoxide
lbs/day = pounds per day
NOx = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SOx = sulfur oxides
VOC = volatile organic compounds

Long-Term Impacts. Long-term air pollutant emission impacts are those associated with area sources and mobile sources related to the proposed project. In addition to the short-term construction emissions, the proposed project would also generate long-term air pollutant emissions, such as those associated with changes in permanent use of the project site. These long-term emissions are primarily mobile source emissions that would result from vehicle trips associated with the proposed project. Area sources, such as natural gas heaters, landscape equipment, and use of consumer products, would also result in pollutant emissions.

PM_{10} emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways. Entrainment of PM_{10} occurs when vehicle tires pulverize small rocks and pavement and the vehicle wakes generate airborne dust. The contribution of tire and brake wear is small compared to the other PM emission processes. Gasoline-powered engines have small rates of particulate matter emissions compared with diesel-powered vehicles.

Energy source emissions result from activities in buildings for which electricity and natural gas are used. The quantity of emissions is the product of usage intensity (i.e., the amount of electricity or natural gas) and the emission factor of the fuel source. Major sources of energy demand include building mechanical systems, such as heating and air conditioning, lighting, and plug-in electronics, such as refrigerators or computers. Greater building or appliance efficiency reduces the amount of energy for a given activity and thus lowers the resultant emissions. The emission factor is determined by the fuel source, with cleaner energy sources, like renewable energy, producing fewer emissions than conventional sources. Area source emissions associated with the project would include emissions from water heating and the use of landscaping equipment.

Emission estimates for operation of the project were calculated using CalEEMod and Table 3.B shows model results. Trip generation rates for the project were based on the project's trip generation estimates, as identified in Table 5-A of the Transportation Impact Analysis report.[8] Based on the Transportation Impact Analysis report, the proposed project would generate approximately 4,925 average daily trips

[8] LSA Associates, Inc. *Transportation Impact Analysis, Perris/Dracaea Commercial Project.* Table 5-A. September 2020. (Appendix E).

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

(i.e., ADTs without internal capture and pass-by trips), with approximately 416 trips occurring in the a.m. peak hour and approximately 298 trips occurring in the p.m. peak hour.

The primary emissions associated with the project are regional in nature, meaning that air pollutants are rapidly dispersed on release or, in the case of vehicle emissions associated with the project; emissions are released in other areas of the Basin. Table 3.B identifies the daily emissions associated with project operational trip generation, energy, and area sources for ROG, NOx, CO, SOx, PM_{10}, and $PM_{2.5}$.

The results shown in Table 3.B indicate the project would not exceed the significance criteria for daily ROG, NOx, CO, SOx, PM_{10}, or $PM_{2.5}$ emissions; therefore, the proposed project would have a **less than significant impact** on regional air quality and mitigation would not be required.

Table 3.B: Operational Emissions

Source	Pollutant Emissions (lbs/day)					
	ROG	**NOx**	**CO**	**SOx**	**PM_{10}**	**$PM_{2.5}$**
Area Sources	0.16	<0.01	<0.01	0	<0.01	<0.01
Energy Sources	0.02	0.22	0.19	<0.01	0.02	0.02
Mobile Sources	6.03	36.81	36.38	0.16	9.67	2.64
Total Project Emissions	**6.22**	**37.03**	**36.57**	**0.16**	**9.69**	**2.66**
SCAQMD Thresholds	**55.00**	**55.00**	**550.00**	**150.00**	**150.00**	**55.00**
Significant Emissions?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Table B, LSA, May 2020 (Appendix A).

CO = carbon monoxide
lbs/day = pounds per day
NOx = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SOx = sulfur oxides
VOC = volatile organic compounds

The majority of the project-related operational emissions would be due to natural gas for heating and hot water and customer and employee vehicle trips to and from the project. Tables 3.A and 3.B indicate that all emissions of criteria pollutants from the proposed project would be less than the applicable SCAQMD thresholds over both the short and long term, therefore, no significant cumulative air quality impacts would occur and no mitigation is required.

c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐

Response:

Less than Significant Impact. SCAQMD published its *Final Localized Significance Threshold Methodology* in June 2003 and updated it in July 2008,[9] recommending that all air quality analyses include an assessment of both construction and operational impacts on the air quality of nearby sensitive receptors. Localized significance thresholds (LSTs) represent the maximum emissions from a project site of up to 5 acres that are not expected to result in an exceedance of the National Ambient Air Quality Standards (NAAQS) or California Ambient Air Quality Standards (CAAQS) for CO, NO_2, PM_{10} and $PM_{2.5}$. LSTs are based on the ambient concentrations of that pollutant within the project Source Receptor Area (SRA) and the distance to the nearest sensitive receptor. For this project, the appropriate SRA is the Perris Valley Area (SRA 24) according to the project air quality analysis included in Appendix A.

Short-Term LST Impacts. Construction is expected to occur in one phase, and the site is only 2.30 acres; therefore, less than 5 acres would be actively worked on during any given day. The closest sensitive receptors to the site are several existing residences surrounding the project site, the closest of which is are the single-family residences approximately 50 feet from the northern and eastern border of the project site. Table 3.C shows that emissions are well below LST thresholds and thus would be **less than significant**.

Table 3.C: Construction Localized Impacts Analysis

Emissions Sources	NOx	CO	PM_{10}	$PM_{2.5}$

[9] South Coast Air Quality Management District. *Final Localized Significance Thresholds Methodology*. June 2003, Revised July 2008.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Onsite Emissions (lbs/day)	20.20	16.40	1.50	0.90
Local Significance Thresholds (lbs/day)	**170.00**	**833.00**	**7.00**	**4.00**
Significant Emissions?	**No**	**No**	**No**	**No**

Source: Table C, LSA, May 2020 (Appendix A).

Note: Source Receptor Area 24 – Perris Valley, 1 acre, 31 meter distance

CO = carbon monoxide
lbs/day = pounds per day
NOx = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

Long-Term LST Analysis. The potential long-term daily air pollutant emissions from the proposed project operational activities were calculated and compared with the appropriate LSTs from the SCAQMD based on CalEEMod 2016.3.2 model data from the project air quality assessment (Appendix A). As shown in Table 3.D, the calculations determined that the operational emission rates would not exceed the LST thresholds for the closest sensitive receptors. Therefore, the proposed operational activity would result in a **less-than-significant impact** related to localized significant air quality. Mitigation is not required.

Table 3.D: Long-Term Operational Localized Impacts Analysis

Emissions Sources	NOx	CO	PM_{10}	$PM_{2.5}$
On-Site Emissions (lbs/day)[1]	1.80	1.80	0.50	0.10
Local Significance Thresholds (lbs/day)	**170.00**	**833.00**	**2.00**	**1.00**
Significant Emissions?	**No**	**No**	**No**	**No**

Source: Table D, LSA, May 2020 (Appendix A).

Note: Source Receptor Area 24 – Perris Valley, 1 acre, 31 meter distance.

[1] CalEEMod clearly delineates the onsite and offsite emissions and mobile source trips within the project area (i.e., driveways and parking lots).

CO = carbon monoxide
NOx = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

Cumulative Air Quality Impacts. In analyzing cumulative impacts from a proposed project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the Basin is listed as nonattainment for the State and federal ambient air quality standards. The proposed project would have a cumulatively considerable impact if project-generated emissions would exceed thresholds for NOx, VOC, PM_{10}, and/or $PM_{2.5}$. If the proposed project does not exceed thresholds and is determined to have less than significant project-specific impacts, it may still have a cumulatively considerable impact on air quality and GHG if the emissions from the project, in combination with emissions from other proposed or reasonably foreseeable future projects, are in excess of established thresholds. However, the proposed project would be considered to have a cumulative impact only if its contribution accounts for a significant portion of the cumulative total emissions.

The geographic extent for the analysis of cumulative impacts related to air quality includes the central area of the South Coast Air Basin. Due to the nonattainment status of the Basin, the primary air pollutants of concern would be NOx and VOCs, which are ozone precursors, and PM_{10} and $PM_{2.5}$. Project-related NOx and VOCs are primarily emitted from motor vehicles and construction equipment, while PM_{10} and $PM_{2.5}$ are emitted primarily as fugitive dust during construction. Because of the nature of ozone as a regional air pollutant, emissions from the entire geographic area for this cumulative impact analysis would tend to be important, although maximum ozone impacts generally occur downwind of the area in which the ozone precursors are released. PM_{10} and $PM_{2.5}$ impacts, on the other hand, would tend to occur locally; thus, projects occurring in the same general area and in the same time period would tend to create cumulative air quality impacts.

The project would contribute criteria pollutants to the area during project construction. A number of individual projects in the area may be under construction simultaneously with the proposed project. Depending on construction schedules and actual implementation of projects in the area, generation of fugitive dust and pollutant emissions during construction could result in substantial short-term increases in air pollutants. However, each project would be required to comply with the SCAQMD's standard construction measures. The proposed project's short-term construction CO, NO_2, PM_{10}, and $PM_{2.5}$ emissions would not exceed the LSTs. Therefore, construction of the proposed project would have **a**

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
less than significant impact with regard to regional and localized emissions, and impacts would not be cumulatively considerable.				
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☒	☐

Response:

Less Than Significant Impact. Project construction will generate limited odors over the short term, mainly fumes from gasoline- and diesel-powered construction equipment. These odors would be temporary and not likely to be noticeable beyond the project limits. The painting of buildings or the installation of concrete paving may also create temporary odors. SCAQMD Rule 1113 outlines standards for paint applications, while Rule 1108 identifies standards regarding the application of asphalt. Adherence to the standards identified in these SCAQMD Rules would reduce temporary odor impacts to a less than significant level, and no mitigation is required.

Land uses generally associated with long-term objectionable odors include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting operations, refineries, landfills, dairies, and fiberglass molding facilities. The site plan currently shows the trash enclosure will be in the center portion of the site, on the west side of the convenience store. The proposed project is a service station and convenience store, and waste odors are not expected to result in significant odor impacts because waste storage is required to adhere to City waste storage requirements (i.e., covered outdoor storage containers that are regularly emptied).

SCAQMD Rule 402 regarding nuisances states: "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property." Furthermore, SCAQMD Rule 461 - Gasoline Transfer and Dispensing, requires the installation of enhanced vapor recovery systems that would reduce the amount of vapor that would be emitted into the atmosphere by 95 to 98 percent from levels without such systems. Through the adherence of these existing requirements, the proposed project is not expected to generate long-term objectionable odors. Because the project would not involve any substantial short-term or long-term sources of strong negative odors, impacts are considered **less than significant.** Mitigation is not required.

Sources:

1. Moreno Valley General Plan, adopted July 11, 2006
   - Chapter 5 – Circulation Element
   - Chapter 6 – Safety Element – Section 6.6 – Air Quality
2. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
   - Section 5.3 – Air Quality
     - Figure 5.3-1 – South Coast Air Basin
   - Appendix C – Air Quality Analysis, P&D Consultants, July 2003
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
   - Section 9.10.050 – Air Quality of the Moreno Valley Municipal Code
   - Section 9.10.150 – Odors of the Moreno Valley Municipal Code
   - Section 9.10.170 – Vibration of the Moreno Valley Municipal Code
4. Moreno Valley Municipal Code Section 12.50.040 – Limitations on Engine Idling

IV. BIOLOGICAL RESOURCES – Would the project:				
a) 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?	☐	☒	☐	☐

Response:

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Less Than Significant With Mitigation Incorporated. A Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis and Biology Report was prepared for the project site in September 2020 (included as Appendix B).[10] A general biological resources survey was conducted on April 12, 2019. The project site is mostly devoid of vegetation since the property has been historically plowed or disked for weed abatement compliance. There are several dead and live ornamental trees along the eastern perimeter. The project site was recently plowed; however, non-native grassland comprised of mouse barley (*Hordeum murinum*), shortpod mustard (*Hirschfeldia incana*), stork's bill (*Erodium* spp.), and red brome (*Bromus madritensis* ssp. *rubens*) was observed during the biological survey of the site. Historical aerial imagery of the project site revealed that the project site has remained mostly undeveloped since 1966. No special-status species were found or observed during the field reconnaissance.

The project site lies within the MSHCP Plan Area; however, the project site is not located within the MSHCP Criteria Area, Public/Quasi-Public Lands, or conservation areas, nor is the site located within the MSHCP Narrow Endemic Plant Species Survey Area, burrowing owl (*Athene cunicularia hypugaea*) survey area,[11] or any other species survey area. As the project site has been recently plowed or disked for weed abatement, the site does not contain suitable habitat for any threatened or endangered species. Section 6.3.2 of the MSHCP prescribes survey needs for special-status species based on mapped surveys areas for: Criteria Area Plant Species, amphibians, and mammals; however, the project site does not fall within mapped survey areas for any of these special-status species. Species identified in MSHCP Table 9-3 are not considered adequately conserved under the MSHCP. Other species with limited coverage or with no take authorization under the MSHCP include Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*), bald eagle (*Haliaeetus leucocephalus*), golden eagle (*Aquila chrysaetos*), peregrine falcon (*Falco peregrinus anatum*), and white-tailed kite (*Elanus leucurus*). No species identified in MSHCP Table 9-3 or the other species listed above are expected to occur on the project site due to the substantial disturbance of the site and a lack of suitable vegetation communities, soils, and hydrology.

The project site does not include any suitable habitat for special-status species, and none were observed on the project site during the biological survey. Based on the analysis above, the project is consistent with the MSHCP.

Nesting Birds. During the bird breeding season (typically February 1 through August 31), large trees on or adjacent to the project area may be used by hawks, ravens, or other large birds for nesting. Trees, shrubs, and other vegetation may provide nest sites for smaller birds. The trees present on the site can provide habitat for nesting birds that are protected by the Migratory Bird Treaty Act of 1918 (MBTA) (16 USC 703–711) and California Fish and Game Code Section 3503, 3053.5, and 3800. These laws regulate the take, possession, or destruction of the nest or eggs of any migratory bird or bird of prey. However, the USFWS has recently determined that the MBTA should apply only to "… affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs" and will not be applied to incidental take of migratory birds pursuant to otherwise lawful activities. To avoid potential effects to fully protected raptors, special-status bird species, and other nesting birds protected by the MBTA and California Fish and Game Code, and for compliance with MSHCP Incidental Take Permit Condition 5, **Mitigation Measure BIO-1** is identified below to address potential impacts to nesting birds. With adherence to **Mitigation Measure BIO-1**, impacts would be reduced to **less than significant with mitigation incorporated**.

Species Associated With Riparian/Riverine Areas And Vernal Pools. The definition of Riparian/ Riverine habitats is based on potential for the habitat to support Riparian/Riverine Covered Species. The MSHCP species associated with Riparian/Riverine areas and Vernal Pools, as listed in Section 6.1.2 of the MSHCP, were assessed for the probability of occurring in and adjacent to the project site. No drainage features, ponded areas, or riparian habitat subject to jurisdiction by the CDFW, USACE, and/or the Regional Water Quality Control Board (RWQCB) were found within the project site during site surveys. A review of the *Sunnymead, California* U.S. Geological Survey (USGS) quadrangle and historic

[10] LSA Associates, Inc. *Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis and Biology Report, Commercial Retail Project at Perris Boulevard/Dracaea Avenue*. City of Moreno Valley. September 2020. (Appendix B).

[11] Although the project site is not within a burrowing owl survey area, a burrowing owl habitat assessment was conducted in accordance with guidelines (CDFW's *2012 Staff Report on Burrowing Owl Mitigation and Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area*, Riverside County Environmental Programs Department, March 29, 2006). The assessment concluded there is no suitable habitat for the burrowing owl.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

aerial photographs (NETROnline) did not reveal any previously mapped drainage features. There are no vernal pools or other ponded areas suitable for sensitive fairy shrimp species on the project site. Soils in the project area are well drained from repeated plowing and have been previously mapped by the Natural Resources Conservation Service (NRCS) as Ramona sandy loam, with 0 to 2 percent slopes. No hydrophytic vegetation occurs in the project area. The project site does not contain any suitable riparian vegetation or habitat for special-status riparian birds. No additional surveys or mitigation are required.

Stephens' Kangaroo Rat. The project site is located within the Stephens' Kangaroo Rat Habitat Conservation Plan area and a fee payment will be required prior to issuance of a grading permit. The project will comply with the Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County (Riverside County Habitat Conservation Agency, February 1995) and fulfill its compensatory mitigation requirements under this plan through the payment of a fee.

Mitigation Measure BIO-1: A nesting bird pre-construction survey will be conducted by a qualified biologist three days prior to ground-disturbing activities. Should nesting birds be found, an exclusionary buffer will be established by the qualified biologist. The buffer may be up to 500 feet in diameter depending on the species of nesting bird found. This buffer will be clearly marked in the field by construction personnel under guidance of the qualified biologist and construction or clearing will not be conducted within this zone until the qualified biologist determines that the young have fledged or the nest is no longer active. Nesting bird habitat within the project area will be resurveyed during bird breeding season if there is a lapse in construction activities longer than seven days.

b) Have a substantial 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. Fish and Wildlife Service?	☐	☐	☒	☐

Response:
Less Than Significant Impact. Fieldwork for a jurisdictional delineation was conducted on April 12, 2019. The site was surveyed by foot and was evaluated for areas of potential jurisdiction according to USACE, CDFW, and MSHCP criteria. Please refer to Checklist Response 4.a). No riparian or riverine habitats were identified within or adjacent to the project site. **A less than significant** impact related to this issue would occur, and no mitigation is required.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒

Response:
No Impact. The USACE regulates discharges of dredged or fill material into waters of the United States (U.S.). These waters include wetlands and nonwetland bodies of water that meet specific criteria. This connection may be direct through a tributary system linking a stream channel with traditional navigable waters (TNW) used in interstate or foreign commerce or may be indirect through a nexus identified in the USACE regulations. In the past, an indirect nexus could potentially be established if isolated waters provided habitat for migratory birds, even in the absence of a surface connection to navigable water of the U.S. In order to be considered a jurisdictional wetland under Section 404, an area must possess three wetland characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. Each characteristic has a specific set of mandatory wetland criteria that must be satisfied in order for that particular wetland characteristic to be met.

The CDFW, under Section 1602 of the California Fish and Game Code, regulates alterations to lakes, rivers, and streams (defined by the presence of a channel bed and banks, and at least an intermittent flow of water) where fish or wildlife resources may be adversely affected. The RWQCB is responsible for the administration of Section 401 of the Clean Water Act. Typically, the areas subject to jurisdiction of the RWQCB coincide with those of the USACE (i.e., waters of the U.S. including any wetlands). The

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

RWQCB can also assert authority over "waters of the State" under waste discharge requirements pursuant to the Porter-Cologne Water Quality Control Act. Please refer to Checklist Response 4.a. The project site is currently vacant and is currently surrounded by existing roadways, residential, and commercial uses. No federally protected wetlands, marshes, vernal pools, or coastal areas were identified within the project area. Therefore, **no impact** related to this issue would occur. No mitigation is required.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with an established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐

Response:

Less than Significant Impact. Wildlife movement includes seasonal migration along corridors, as well as daily movements for foraging and reaching water sources. Migration corridors may include areas of unobstructed movement for deer, riparian corridors providing cover for migrating birds, routes between breeding waters and upland habitat for amphibians, and between roosting and feeding areas for birds. The project site is not adjacent to any existing or proposed linkage or core areas as identified in the MSHCP. The project will not affect wildlife movement since the property is surrounded by urban development and the project site does not serve as a wildlife movement corridor. A **less than significant** impact related to this issue would occur, and no mitigation is required.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐

Response:

Less Than Significant Impact. According to the City of Moreno Valley Municipal Code (as amended), Chapter 9.17, Landscape and Water Efficiency Requirements; Section 9.17.030, Landscape and Irrigation Standards; Part E, Trees, projects necessitating the removal of existing trees with four-inch or greater trunk diameters (calipers), shall be replaced at a three to one ratio, with minimum twenty-four (24) inch box size trees of the same species, or a minimum thirty-six (36) inch box for a one to one replacement, where approved. Additionally, Part G defines Heritage Trees as any tree that defines the historical and cultural character of the City, including older palm and olive trees, and/or any tree designated as such by official action; trees with a 15-inch diameter measured 24 inches above ground level; or trees that have reached a height of 15 feet or greater.

The biological assessment of the project included an inventory of all trees on site (Appendix B). The site contains four (4) trees, as detailed in Table 4.A, and several occurrences of tree of heaven (*Ailanthus altissima*).[12] Tree of heaven are not considered ornamental trees in California but are an invasive species classified by the state as noxious weeds that should be eradicated from the site.[13]

Table 4.A: Tree Inventory

Tree No.	Species[1]	Height (feet)	Caliper (inches)[2]	Rating/ Transplantable	Notes
001	black locust (*Robinia pseudoacacia*)	24	8	Poor/No	Poor structure (codominant leaders, pleaching)
002	black locust (*Robinia pseudoacacia*)	18	9.5	Poor/No	Poor structure (codominant leaders, pleaching); unhealed old branch cuts
003	black locust (*Robinia pseudoacacia*)	15	6	Poor/No	Poor structure (codominant leaders, pleaching)

[12] LSA Associates, Inc. *Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis and Biology Report, Commercial Retail Project at Perris Boulevard/Dracaea Avenue*. Page 4. City of Moreno Valley. September 2020. (Appendix B).

[13] California Department of Food and Agriculture. Pest Rating Proposals and Final Ratings. *Tree of Heaven / Ailanthus altissima (Miller).* http://blogs.cdfa.ca.gov/Section3162/?p=4399. (accessed August 31, 2020).

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

004	eucalyptus (*Eucalyptus* sp.)	35	14	Poor/No	Poor structure (codominant leaders, pleaching); unhealed old branch cuts

Source: LSA Associates, Inc. *Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis and Biology Report, Commercial Retail Project at Perris Boulevard/Dracaea Avenue*. City of Moreno Valley. September 2020. (Appendix B).

1 Trees with minimum four-inch caliper measured two feet from ground surface or which are at least 15 feet tall.
2 Measured two feet from ground surface.

Although four trees are 15 feet or taller, none qualify as heritage trees because none of the trees retain the integrity necessary to embody the historical and cultural character of the City. The project site is infill and surrounded substantially by residential uses with contemporary landscaping. The on-site trees are located on a vacant site and therefore are outliers without the required context to convey the historical and cultural character of the City because the historic-era homestead with which they may have been associated in the past is demolished. Therefore, all trees on the project site will be managed in accordance with Part E of Section 9.17.030 of the City Municipal Code, which requires all trees proposed for removal to be replaced at a three to one ratio, with minimum twenty-four (24) inch box size trees of the same species, or a minimum thirty-six (36) inch box for a one to one replacement, where approved. Compliance with these standards is required of all projects in the City as a matter of regulatory policy (i.e., City Municipal Code) and therefore does not constitute mitigation. Impacts are **less than significant**, and mitigation is not required.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or another approved local, regional, or state habitat conservation plan?	☐	☒	☐	☐

Response:

Less than Significant with Mitigation Incorporated. The MSHCP is a comprehensive, multi-jurisdictional Habitat Conservation Plan focusing on conservation of species and their associated habitats in Western Riverside County. MSHCP participants include the County and fourteen cities, including the City of Moreno Valley who is a signatory to the plan. The MSHCP will 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. The plan covers 1.26 million acres and protects 146 native species of plants and animals.

As described in Checklist Response 4.a above, the project site does not contain the habitat types described for conservation in the MSHCP, and no special-status species were observed on the project site during the biological survey. Based on the analysis above, the project is consistent with the MSHCP. The project site is mostly devoid of vegetation since the property has been historically plowed or disked for weed abatement. A habitat assessment for burrowing owl (*Athene cunicularia*), a California species of special concern, was completed (Appendix B), and the project site does not contain suitable habitat for burrowing owl. However, the site may be utilized by nesting birds that are protected by the MBTA and Fish and Game Code. Implementation of **Mitigation Measures BIO-1**, provided above, would reduce impacts to nesting birds to less than significant levels.

The project site is not within the MSHCP Criteria Area, Public/Quasi-Public Lands, or conservation area, nor is the site located within any species survey areas, including for plants.

As described above in Checklist Response 4.b, the project would not impact Riparian/Riverine areas. The project site is located within the Stephens' Kangaroo Rat Habitat Conservation Plan area and a fee payment will be required prior to issuance of a grading permit. The project will comply with the Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County (Riverside County Habitat Conservation Agency, February 1995) and fulfill its compensatory mitigation requirements under this plan.

With implementation of **Mitigation Measure BIO-1**, the project as planned is consistent with the applicable MSHCP requirements, and impacts would be **less than significant with mitigation incorporated.**

Sources:

1. Moreno Valley General Plan, adopted July 11, 2006

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

- Chapter 7 – Conservation Element – Section 7.1 – Biological Resources

2. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
   - Section 5.9 – Biological Resources
     - Figure 5.9-1 – Planning Area Biological Geographic Sections
     - Figure 5.9-2 – Planning Area Vegetation Community
     - Figure 5.9-3 – Project Site Location within the MSHCP Area
     - Figure 5.9-4 – Reche Canyon/Badlands Area Plan
   - Appendix E – Biological Resources Study, Appendix E
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
   - Section 9.17.030 G – Heritage Trees
4. Moreno Valley Municipal Code Chapter 8.60 – Threatened and Endangered Species
5. Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), http://www.wrc-rca.org/about-rca/multiple-species-habitat-conservation-plan/
6. Stephens' Kangaroo Rat Habitat Conservation Plan (SKRHCP), Governing Documents | RCHCA, CA

V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐

Response:

Less than Significant with Mitigation Incorporated. A Cultural Resources Assessment[14] was prepared to identify and determine whether any historical or archaeological resources may be present within the project limits (included as Appendix C). A records search was conducted on March 28, 2019, at the Eastern Information Center (EIC) at the University of California, Riverside. The search included a review of all recorded historic and prehistoric archaeological sites within one mile of the project site, as well as a review of known cultural resource survey and excavation reports. In addition, the California State Historic Property Data File (HPD), which includes the National Register of Historic Places (National Register), California Historical Landmarks (CHL), and California Points of Historical Interest (CPHI), various local historic registers, and historic maps were searched. Data from the EIC found 15 cultural resource studies were conducted within one mile of the project, none of which are located within the project limits. Although no cultural resources have been documented within the project area, five historic period residences, all eligible for listing in the National Register of Historic Places (National Register). The nearest resource (33-007280) is approximately 0.5 mile to the southwest.

In March 2019, a review of historic period maps, aerial photographs, and additional research was conducted. Review of historic period maps and online research indicated there was formerly a house on the one of the currently undeveloped parcel (APN 479-120-027) constructed prior to 1930 and removed by 2002. No prehistoric resources are recorded within one mile.

An intensive pedestrian field survey of the project area was conducted on April 25, 2019, and included walking in 10-meter wide transects throughout the project limits. The field survey revealed that the project area is almost completely obscured by Spring growth vegetation, and visibility was exceptionally poor throughout the project site at less than 5 percent. Modern refuse was noted on the surface.

A residence constructed prior to 1930 was formerly located within the project boundaries, and associated features (a utility pole and slab) and a glass bottle fragment dating to the historic period were identified during the survey. The residence was demolished prior to 2002, and only the concrete slab foundation, utility pole, and glass bottle fragment remain. Demolition of the historic-era residence has eliminated the context required to convey any historical significance of the property. The remnant features (utility pole and slab) and glass bottle fragment are typical examples of regionally and locally ubiquitous features and

[14] LSA Associates, Inc. *Cultural Resources Assessment, Perris Boulevard and Dracaea Avenue Commercial Retail Project, City of Moreno Valley*. August 2020. (Appendix C).

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

artifacts with no unique character-defining features that could contribute to the significance of the property or to the features and artifacts themselves. Therefore, their removal during construction would not constitute a significant impact. Due to the former presence of a pre-Depression Era residence, the project area retains some potential for associated subsurface resources. Therefore, archaeological monitoring is prescribed during ground-disturbing activities. **Mitigation Measures TCR-1** through **TCR-6,** although prescribed to address Tribal Cultural Resources, will serve to ensure archaeological and historic-era cultural resources inadvertently encountered during ground disturbing activities are managed pursuant to CEQA Guidelines Section 15064.5 (refer to Section 18 below). Impacts related to historical and archaeological resources therefore would be **less than significant with mitigation incorporated**.

c) Disturb any human remains, including those interred outside of formally dedicated cemeteries?	☐	☒	☐	☐

Response:

Less than Significant with Mitigation Incorporated. In the event that human remains (or remains that may be human) are discovered at the project site, no further disturbance shall occur within 100 feet of the find until the project Applicant has notified the Riverside County Coroner and the City of Moreno Valley Planning Official or designee, and the County Coroner has made a determination of origin and disposition.[15] Section 7050.5 of the California Health and Safety Code requires that excavation be stopped in the vicinity of the discovered human remains until the coroner can determine whether the remains are those of a Native American. If human remains are determined to be of Native American origin, the project Applicant shall comply with State regulations relating to the disposition of Native American burials that occur within the jurisdiction of the Native American Heritage Commission (NAHC) (PRC Section 5097). The County Coroner shall contact the NAHC to determine the most likely descendant(s) (MLDs). The MLD shall complete his or her inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The MLD shall oversee disposition of the remains to determine the most appropriate means of treating the human remains and any associated grave artifacts.

The specific locations of Native American burials and reburials shall be proprietary and not disclosed to the general public. The County Coroner shall notify the NAHC in accordance with California Public Resources Code 5097.98. Additionally, Section 7052 of the California Health and Safety Code states that disturbance of Native American cemeteries is a felony. Adherence to State regulations as described above is required for all development and is codified in **Mitigation Measure TCR-6** through the City's consultation with Native American tribes pursuant to SB 18 and AB 52. Therefore, impacts associated with the inadvertent discovery of human remains would be **less than significant with mitigation incorporated**.

Sources:

1. Moreno Valley General Plan, adopted July 11, 2006
   - Chapter 7 – Conservation Element – Section 7.2 – Cultural and Historical Resources
2. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
   - Section 5.10 – Cultural Resources
     - Figure 5.10-1 – Locations of Listed Historic Resource Inventory Structures
     - Figure 5.10-2 – Location of Prehistoric Sites
     - Figure 5.10-3 – Paleontological Resource Sensitive Areas
   - Appendix F – Cultural Resources Analysis, Study of Historical and Archaeological Resources for the Revised General Plan, City of Moreno Valley, Archaeological Associates, August 2003.
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
4. Moreno Valley Municipal Code Title 7 – Cultural Preservation
5. Cultural Resources Inventory for the City of Moreno Valley, Riverside County, California, prepared by Daniel F. McCarthy, Archaeological Research Unit, University of California, Riverside, October 1987 (*This document cannot be provided to the public due to the inclusion of confidential information pursuant to Government Code Section 6254.10.*)

[15] California Health and Safety Code. *Division 7, Dead Bodies;* Chapter 2, *General Provisions*, § 7050.5.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. ENERGY – Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐

Response:

Less than Significant Impact. The proposed project would increase the demand for electricity, natural gas, and gasoline. The discussion and analysis provided below is based on data included in the CalEEMod output, which is included in Appendix A.

Construction-Period Energy Use. The anticipated construction schedule assumes that the proposed project would be built over a six month period. The proposed project would require grading, site preparation, and building activities during construction.

Construction of the proposed project would require energy for the manufacturing and transportation of construction materials, preparation of the site for grading activities and construction of the fuel facility. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for these activities. Construction activities are not anticipated to result in an inefficient use of energy as gasoline and diesel fuel would be supplied by construction contractors who would conserve the use of their supplies to minimize their costs on the project. Energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources. In addition, to increase energy efficiency on the site during project construction, the project would restrict equipment idling times to 5 minutes or less and/or would require construction workers to shut off idle equipment. Energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources. Therefore, construction energy impacts would be **less than significant**.

Operational Energy Use. Energy consumed by the proposed project would be associated with natural gas use, electricity consumption, and fuel used for vehicle trips associated with the project. Energy and natural gas was estimated for the project using default energy intensities by building type in CalEEMod. In addition, the proposed buildings would be constructed to CALGreen standards as required by the State, which were included in CalEEMod inputs. Electricity and natural gas usage estimates associated with the proposed project are shown in Table 6A.

Table 6.A: Estimated Annual Energy Use of the Proposed Project

Land Use	Electricity Use (kWh per year)	Natural Gas Use (therms per year)	Gasoline (gallons per year)
Convenience Market with Gas Pumps	51,631	91	84,254
Fast Food Restaurant with Drive Through	142,440	8,203	110,022
Parking Lot	7,280	0	0
Total	**201,351**	**8,294**	**194,276**

Source: CalEEMod Modeling, LSA, May 2020 (Appendix A).

As shown in Table 6.A, the estimated potential increased electricity demand associated with the proposed project is 201,351 kilowatt-hours (kWh) per year. In 2018, California consumed approximately 284,436 gigawatt-hours (GWh) or 284,436,261,600 kWh. Of this total, Riverside County consumed 16,256 GWh or 16,256,705,441 kWh.[16] Therefore, electricity demand associated with the proposed project would be less than 0.02 percent of Riverside County's total electricity demand.

As shown in Table 6.A, the estimated potential increased natural gas demand associated with the proposed project is 8,294 therms per year. In 2018, California consumed approximately 12,666 million therms or 12,666,398,560 therms, while Riverside County consumed approximately 398 million therms

[16] California Energy Commission. *Energy Consumption Data Management Service. Electricity Consumption by County.* 2017. www.ecdms.energy.ca.gov/elecbycounty.aspx. (Accessed June 2020).

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

or approximately 398,538,428 therms.[17] Therefore, natural gas demand associated with the proposed project would be less than 0.03 percent of Riverside County's total natural gas demand.

In addition, the proposed project would result in energy usage associated with gasoline to fuel project-related trips. As shown above in Table VI.A, vehicle trips associated with the proposed project would consume approximately 194,276 gallons of gasoline per year. In 2015, vehicles in California consumed approximately 15.1 billion gallons of gasoline.[18] Therefore, gasoline demand generated by vehicle trips associated with the proposed project would be a minimal fraction of gasoline and diesel fuel consumption in California.

The proposed project would also be required to implement energy reduction design features and comply with the most recent energy building standards consistent with applicable plans and policies. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy or energy efficiency measures into building design, equipment use, and transportation. Therefore, construction and operation period impacts related to consumption of energy resources would be **less than significant**. Mitigation is not required.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Response:

Less than Significant Impact. In 2002, the Legislature passed Senate Bill 1389, which required the California Energy Commission (CEC) to develop an integrated energy plan every two years for electricity, natural gas, and transportation fuels, for the California Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission (ZE) vehicles and their infrastructure needs, and encouragement of urban designs that reduce VMT and accommodate pedestrian and bicycle access.

The CEC adopted the 2017 Integrated Energy Policy Report.[19] The 2017 Integrated Energy Policy Report provides the results of the CEC's assessments of a variety of energy issues facing California. Many of these issues will require action if the State is to meet its climate, energy, air quality, and other environmental goals while maintaining energy reliability and controlling costs. The 2017 Integrated Energy Policy Report covers a broad range of topics, including implementation of Senate Bill 350, integrated resource planning, distributed energy resources, transportation electrification, solutions to increase resiliency in the electricity sector, energy efficiency, transportation electrification, barriers faced by disadvantaged communities, demand response, transmission and landscape-scale planning, the California Energy Demand Preliminary Forecast, the preliminary transportation energy demand forecast, renewable gas (in response to Senate Bill 1383), updates on Southern California electricity reliability, natural gas outlook, and climate adaptation and resiliency.

As indicated above, energy usage on the project site during construction and grading would be temporary in nature. In addition, energy usage associated with operation of the proposed project would be relatively small in comparison to the State's available energy sources and energy impacts would be negligible at the regional level. Because California's energy conservation planning actions are conducted at a regional level, and because the project's total impact to regional energy supplies would be minor, the proposed project would not conflict with California's energy conservation plans as described in the CEC's 2017 Integrated Energy Policy Report. Thus, as shown above, the project would avoid or reduce the inefficient, wasteful, and unnecessary consumption of energy and not result in any irreversible or irretrievable commitments of energy. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation and this impact would be **less than significant**. Mitigation is not required.

Sources:

[17] California Energy Commission. *Energy Consumption Data Management Service. Gas Consumption by County.* 2017. www.ecdms.energy.ca.gov/gasbycounty.aspx. (Accessed June 2020).

[18] California Energy Commission. *California Gasoline Data, Facts, and Statistics.* 2020. https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-gasoline-data-facts-and-statistics. (Accessed June 2020).

[19] California Energy Commission. *2017 Integrated Energy Policy Report. Publication Number: CEC-100-2017-001-CMF.* 2017.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

1. Moreno Valley General Plan, adopted July 11, 2006
   - Chapter 7 – Conservation Element – Section 7.6 – Energy Resources
2. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code

VII. GEOLOGY AND SOILS – Would the project:

a) Directly or indirectly cause 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? Refer to https://www.conservation.ca.gov/cgs/Documents/SP_042.pdf	☐	☐	☒	☐

Response:
Less Than Significant Impact. The project site is located within the Peninsular Range Geomorphic Province, an area characterized by active northeast trending strike slip faults, including the San Jacinto Fault and the Elsinore Fault. Based on the City's General Plan Safety Element, the project site is not located within the boundaries of an Earthquake Fault Zone as defined by the Alquist-Priolo Earthquake Fault Zoning Act of 1972 (California Geological Survey 2005).[20]There are no known active or potentially active faults that traverse the project site and the risk of ground rupture due to a fault displacement beneath the site is low. The closest known fault is the San Jacinto Fault zone approximately 6 miles east of the project site. As the project site is not within an identified fault zone, implementation of the project would not exacerbate the risks associated with fault rupture. Therefore impacts related to earthquake faults would be **less than significant.** No mitigation is required.

ii) Strong seismic ground shaking?	☐	☐	☒	☐

Response:
Less than Significant Impact. Like all of southern California, the project site is located in a seismically active area and, therefore, will continue to be subject to ground shaking resulting from activity on local and regional faults. In addition, the site lies in relative close proximity to the San Jacinto fault, an active fault.[21]Therefore, during the life of the project, there is a high likelihood that there will be similar levels of ground shaking from this fault zone. The project is required to be designed and constructed in accordance with the current California Building Code (CBC) requirements. Adherence to the CBC is anticipated to address the issues related to potential ground shaking. Implementation of the project would not exacerbate the risks associated with seismic ground shaking. With the implementation of CBC requirements, seismic-related impacts would be **less than significant.** No mitigation is required.

iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐

Response:
Less than Significant Impact. Liquefaction involves a sudden loss in strength of a saturated, cohesionless soil (e.g., predominantly sand, low plasticity silts, or sand silt mixtures) caused by cyclic loading such as an earthquake. This results in temporary transformation of the soil to a fluid mass. There are three factors that must exist concurrently in order for liquefaction to occur. These factors include:

- A source of ground shaking, such as an earthquake, capable of generating soil mass distortions;
- A relatively loose silty and/or sandy soil; and
- A relatively shallow groundwater table (within approximately 50 feet below ground surface) or completely saturated soil conditions that will allow positive pore pressure generation.

[20] City of Moreno Valley. City of Moreno Valley General Plan. Figure 6-3: Geologic Faults and Liquefaction. July 11, 2006.
[21] *Ibid.* Chapter 6 Safety.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
The project site is not located within a liquefaction zone.[22] Because the project site is not located in an area that is susceptible to ground-related failure such as liquefaction, implementation of the project would not exacerbate the risks associated with ground related failure. Therefore, a **less than significant** impact related to this issue would occur. No mitigation is required.				
iv) Landslides?	☐	☐	☒	☐
Response: *Less than Significant Impact.* The geologic and topographic characteristics of an area, often determine its potential for landslides. Steep slopes, the extent of erosion, and the rock composition of a hillside all contribute to the potential for slope failure and landslide events. Common triggering mechanisms of slope failure include undercutting of slopes by erosion or grading, saturation of marginally stable slopes by rainfall or irrigation, and seismic shaking of marginally stable slopes during earthquakes. As described in the City's Safety Element of the General Plan, there is the potential for landslides in the Badlands area within the easternmost portion of the City's Sphere of Influence because there are steep slopes, and the underlying geological material is poorly consolidated. The project site is generally flat with no evidence of landslides occurring on-site and the project site, and it is not located near the Badlands area. There are no natural or artificial slopes on the project site that have the potential for landslides. As the proposed project is not expected to be exposed to a landslide hazard and would not exacerbate landslide risks, a **less than significant impact** related to this issue would occur. No mitigation is required.				
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
Response: *Less than Significant Impact.* Soils are classified by the United States Department of Agriculture (USDA) Natural Resource Conservation Service into four hydrologic soils groups based on the soil's runoff potential. "Hydrologic soil group" is a term that represents a group of soils having similar runoff potential under similar storm and cover conditions. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for bare soil after prolonged wetting. The two soil units mapped within the project site are: Ramona sandy loam, 0 to 2 percent slopes, Major Land Resource Area (MLRA) 19 (RaA) and Ramona sandy loam, 2 to 5 percent slopes, eroded (RaB2).[23] RaA soils are in hydrologic soil group B which have moderate infiltration rates when thoroughly wetted and consist mainly of moderately deep to deep, moderately well to well drained soils with moderately fine to moderately coarse textures. RaB2 soils are in hydrologic soil group C which have low infiltration rates when thoroughly wetted and consist mainly of soils with a layer that impedes downward movement of water and soils with moderately fine to fine texture. Soil types of Group C would be particularly prone to erosion during construction of the proposed project, especially during heavy rains. In addition, the proposed project would require the excavation and movement of on-site soils, which could provide for further runoff or erosion issues. Therefore, construction of the proposed project could result in potentially significant impacts related to erosion. Prior to the issuance of grading permits, the project Applicant would be required to prepare and submit detailed grading plans. These plans must be prepared in conformance with applicable standards of the City's Grading Ordinance. Development of the site would involve more than one acre of ground disturbance; therefore, the proposed project is required to obtain a National Pollutant Discharge Elimination System (NPDES) permit. A Storm Water Pollution Prevention Plan (SWPPP) would also be required to address erosion and discharge impacts associated with the proposed onsite grading by implementing appropriate best management practices (BMPs). The project applicant would be required to adhere to the SWPPP which would require the implementation of BMPs, including erosion control measures, to minimize construction impacts. Additionally, upon completion of all construction activities, all areas of temporary disturbance would be restored and revegetated. The proposed project would have a **less than significant** impact associated with soil erosion. No mitigation is required.				
c) 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-	☐	☐	☒	☐

[22] *Ibid.* Figure 6-3: Geologic Faults and Liquefaction.
[23] United States Department of Agriculture, Natural Resources Conservation Service. *Web Soil Survey*. https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. (Accessed June 17, 2019).

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				

Response:
Less than Significant Impact. As discussed under Checklist Response 7.a.iii and 7.a.iv, liquefaction and landslides are not significant hazards at the project site. Lateral spreading refers to ground or slope deformation due to the presence of weak or liquefiable soils in the subsurface combined with strong seismic shaking. Due to a lack of liquefaction and soft soils, the potential for lateral spreading at the site is not significant. Subsidence is the sudden sinking or gradual downward settling of the earth's surface with little or no horizontal motion. Subsidence is caused by a variety of activities, which includes (but is not limited to) withdrawal of groundwater, pumping of oil and gas from underground, the collapse of underground mines, liquefaction, and hydro-compaction. The proposed project does not include the withdrawal of groundwater or other resources from underground sources. Settlement ("seismic compaction") of loose to medium-dense clean dry sands can occur during seismic shaking. The project Applicant would be required to prepare a final geotechnical report, which shall include project-specific recommendations and construction specifications that meet or exceed seismic design requirements. The specific design recommendations described in the final geotechnical report would be incorporated into all project-related construction documents. Adherence to the specific design recommendations described in the final geotechnical report would ensure that impacts related to on-site or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse remain **less than significant**. No mitigation is required.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐

Response:
Less Than Significant Impact. Expansive soils generally have a significant amount of clay particles, which can give up water (shrink) or take on water (swell). The change in volume exerts stress on buildings and other loads placed on these soils. The extent of shrink/swell is influenced by the amount and kind of clay in the soil. The occurrence of these soils is often associated with geologic units having marginal stability. The distribution of expansive soils can be widely dispersed, and they can occur in hillside areas as well as low-lying alluvial basins. No significant deposits of fine grained soils (silt and clay) were observed, but could be locally present. On-site soils are anticipated to be non-expansive or have a very low expansion potential. However, there may be localized, discontinuous layers of clayey soils with higher expansion potential. As described above, a final geotechnical report would be prepared and would include project-specific recommendations and construction specifications that meet or exceed seismic design requirements. The specific design recommendations described in the final geotechnical report would be incorporated into all project-related construction documents. Adherence to the specific design recommendations described in the final geotechnical report would ensure that impacts related to expansive soils remain **less than significant.** Mitigation is not required.

e) 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?	☐	☐	☐	☒

Response:
No Impact. The proposed project is expected to connect to existing sewer infrastructure. The project would not use septic tanks or other alternative wastewater disposal system. Therefore, the development of the proposed project would have **no impact** related to this issue. Mitigation is not required.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Response:
Less than Significant with Mitigation Incorporated. California Administrative Code, Title 14, Section 4307 states that no person shall remove, injure, deface or destroy any object of paleontological, archaeological, or historical interest or value. Compliance with Section 4307 is required for all development and would apply to the project as a matter of regulatory policy. As described in the City's

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

General Plan Final Program EIR,[24] the City's Planning Area contains sedimentary rock-units (Mt. Eden Formation and San Timoteo Formation) that have the potential to contain significant norenewable paleontological resources. Figure 5.10-3 of the City's Final Program EIR indicates that the project site is not underlain by these two sedimentary rock-units and that there is a low potential for sensitive paleontological resources to occur on the project site. Based on the site characteristics as described in the City's Final Program EIR, construction of the project is not expected to impact, either directly or indirectly, any known unique paleontological resource or site of unique geologic features. Given the site's history of disturbance, the potential for undiscovered paleontological resources is considered low. However, ground-disturbing activities at the project site still have the potential to disturb previously unknown subsurface resources. **Mitigation Measure GEO-1** requires the construction manager and any contractors to attend a Paleontological Resources Worker Sensitivity Training prior to ground disturbance to ensure they are aware of the potential for paleontological resources to occur on-site and the discovery protocol to follow in case such resources are encountered. **Mitigation Measure GEO-2** would ensure the project paleontologist is engaged to evaluate the significance of any paleontological resources identified during ground disturbing activities. With implementation of **Mitigation Measures GEO-1** and **GEO-2,** paleontological resources impacts would be **less than significant with mitigation incorporated**.

Mitigation Measure GEO-1: The Project Applicant shall retain a qualified paleontologist to attend the pre-grading meeting with the City, the construction manager and any contractors. The paleontologist will conduct a mandatory Paleontological Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the paleontological sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the protocols that apply in the event inadvertent discoveries of paleontological resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Paleontological Sensitivity Training prior to beginning work, and the Project paleontologist shall make themselves available to provide the training on an as-needed basis.

Mitigation Measure GEO-2: If paleontological resources (fossils) are discovered during project grading, work shall be halted within 100 feet of the find until a qualified paleontologist assesses the significance of the find. The project paleontologist shall monitor remaining earthmoving activities at the project site and shall be equipped to record and salvage fossil resources that may be unearthed during grading activities. The paleontologist shall be empowered to temporarily halt or divert grading equipment to allow recording and removal of the unearthed resources. Any fossils found shall be evaluated in accordance with the CEQA Guidelines and offered for curation at an accredited facility approved by the City of Moreno Valley. Once grading activities have ceased or the paleontologist determines that monitoring is no longer necessary, monitoring activities shall be discontinued. This measure shall be implemented to the satisfaction of the City Planning Division.

Sources:

1. Moreno Valley General Plan, adopted July 11, 2006
   - Chapter 6 – Safety Element – Section 6.5 – Geologic Hazards
     - Figure 6-3 – Geologic Faults & Liquefaction
   - Chapter 7 – Conservation Element – Section 7.4 -- Soils

[24] City of Moreno Valley. C*ity of Moreno Valley General Plan Final Program EIR*. Chapter 5.10 – Cultural Resources. July 2006.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

2. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
   - Section 5.6 – Geology and Soils
     - Figure 5.6-1 – Geology
     - Figure 5.6-2 – Seismic Hazards
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
4. Moreno Valley Municipal Code Chapter 8.21 – Grading Regulations
5. Local Hazard Mitigation Plan, City of Moreno Valley Fire Department, adopted October 4, 2011, amended 2017, http://www.moval.org/city_hall/departments/fire/pdfs/haz-mit-plan.pdf
   - Chapter 4 – Earthquake
     - Figure 4-1 – Right-Lateral Strike -Slip Fault
     - Figure 4-1.1 – Moreno Valley Geologic Faults and Liquefaction 2016
     - Figure 4-1.2 – Moreno Valley Area Ground Shaking Map
   - Chapter 8 – Landslide
     - Figure 8-1 – Moreno Valley Slope Analysis 2016
6. Emergency Operations Plan, City of Moreno Valley, March 2009, http://www.moval.org/city_hall/departments/fire/pdfs/mv-eop-0309.pdf
   - Threat Assessment 1 – Major Earthquakes
     - Figure 9 – Types of Faults
     - Figure 10 – Earthquake Faults
     - Figure 11 – Comparison of Richter Magnitude and Modified Mercalli Intensity
     - Figure 12 – Magnitude 4.5 or Greater Earthquake Map
     - Figure 13 – Geologic Faults and Liquefaction

VIII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

Response:

Less than Significant Impact. This section provides an analysis of greenhouse gas (GHG) emissions associated with the proposed project. This analysis examines the short-term construction and long-term operational impacts of the proposed project as it relates to greenhouse gases. A detailed assessment of project-related GHG emissions is included in Appendix A.

Construction GHG Emissions. Construction activities associated with the proposed project would produce combustion emissions from various sources. During construction, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

The SCAQMD does not have an adopted threshold of significance for construction-related greenhouse gas emissions. However, lead agencies are required to quantify and disclose greenhouse gas emissions that would occur during construction. The SCAQMD then requires the construction GHG emissions to be amortized over the life of the project, defined as 30 years, added to the operational emissions, and compared to the applicable interim GHG significance threshold tier.

Using CalEEMod, it is estimated that the project would generate approximately 127.01 metric tons of CO_2e during construction of the project. When annualized over the 30-year life of the project, annual emissions would be 4.23 metric tons CO_2e.

Operational GHG Emissions. Long-term operation of the proposed project would generate GHG emissions from area and mobile sources as well as indirect emissions from sources associated with energy consumption. Mobile-source GHG emissions would include project-generated vehicle trips associated with trips to the proposed project. Area-source emissions would be associated with activities such as landscaping and maintenance on the project site, and other sources.

Following guidance from the SCAQMD, GHG emissions were estimated using CalEEMod. Motor vehicle emissions are the largest source of GHG emissions for the project at approximately 95 percent of the

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

total. Energy use is the next largest category at 4 percent. Water and waste are about 1 percent of the total emissions. Calculations are included in Attachment C to Appendix A.

The project would have less than significant GHG emissions if it would result in operational-related GHG emissions of less than 3,000 metric tons of CO_2e per year.[25] Based on the analysis results, the proposed project would result in approximately 2,584 metric tons of CO_2e per year, which would be well below the SCAQMD's numeric threshold of 3,000 metric tons of CO2e per year.[26] Therefore, operation of the proposed project would not generate significant GHG emissions, and this impact would be **less than significant**. No mitigation is required.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?	☐	☐	☒	☐

Response:

Less than Significant Impact. The Energy Efficiency and Climate Action Strategy were adopted by the City on October 5, 2012. In 2014, Moreno Valley was one of 12 cities that collaborated with the Western Riverside Council of Governments (WRCOG) on a Subregional Climate Action Plan (Subregional CAP) that includes 36 measures to guide Moreno Valley's GHG reduction efforts through 2020. The Energy Efficiency and Climate Action Strategy is a policy document that identifies ways that the City of Moreno Valley can reduce energy and water consumption and greenhouse gas emissions. By using energy more efficiently, harnessing renewable energy to power buildings and vehicles, improving access to sustainable transportation modes, recycling more waste, conserving water, and building local food systems, the City can support the local economy, create new green jobs, and improve public health and community quality of life. The Energy Efficiency and Climate Action Strategy contains GHG reduction measures organized into four primary sectors, as defined by the following policy goals:

- Energy:
  - Energy measures designed to increase communitywide building and equipment efficiency and renewable energy use, and promote energy efficiency and renewable energy generation for use supporting municipal operations that support the community.
- Transportation and Land Use
  - Transportation and land use measures that would reduce single-occupancy vehicle travel, increase non-motorized travel, improve public transit access, increase motor vehicle efficiency, encourage alternative fuel vehicles and promote sustainable growth patterns.
- Water
  - Water measures that would conserve potable water and reduce water demand by the community and municipal operations.
- Solid Waste
  - Solid waste measures that would reduce solid waste sent to landfills that is generated by the community and municipal operations.

As discussed above, the Energy Efficiency and Climate Action Strategy outlines a programmatic approach to review the potential GHG-related impacts associated with new development. As detailed in Appendix A, the project would be consistent with all applicable GHG reduction strategies of the Energy Efficiency and Climate Action Strategy. Furthermore, the project would not conflict with any State and City regulations intended to reduce GHG emissions statewide, and would be consistent with applicable plans and programs designed to reduce GHG emissions. Therefore, the project would have a **less than significant impact**. No mitigation is required.

Sources:

1. Moreno Valley General Plan, adopted July 11, 2006
2. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code

[25] LSA Associates, Inc. *Air Quality and Greenhouse Gas Analysis for the Commercial Retail Project at Perris Boulevard and Dracaea Avenue in the City of Moreno Valley, California.* Page 9. May 2020. (Appendix A)

[26] *Ibid.* Page 15.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
4. California's 2017 Climate Change Scoping Plan, prepared by the California Air Resources Board, November 2017, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf, accessed April 24, 2019				
IX. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

Response:

Less than Significant Impact. The transport, use, and storage of hazardous materials during the construction and operation of the site would be conducted pursuant to all applicable local, state and federal laws, and in cooperation with the Riverside County Fire Department, Riverside County Department of Environmental Health, Hazardous Materials Division (DEH), Environmental Protection and Oversight Division, and California Occupational Safety and Health Administration. Additionally, the United States Department of Transportation Office of Hazardous Materials Safety prescribes strict regulations for the safe transportation of hazardous materials by truck and rail on State highways and rail lines, as described in Title 49 of the *Code of Federal Regulations*, and implemented by Title 13 of the California Code of Regulations.

The proposed service station would utilize hazardous materials on a daily basis including gasoline, oil, solvents, and cleaning products. Two underground storage tanks (USTs) (one is 20,000 gallons and the other is 12,000 gallons/8,000 gallons combination tank) are proposed on the west side of the proposed canopy along with 6 MPDs (12 total fueling stations). Accordingly, the project would develop a Hazardous Materials Business Emergency Plan administered by the Riverside County Fire Department, as applicable, in accordance with California Health and Safety Code Section 25507 and other local, state, and federal standards, ordinances, and regulations. As required by Health and Safety Code Section 25507, a business shall establish and implement a Hazardous Materials Business Emergency Plan for emergency response to a release or threatened release of a hazardous material in accordance with the standards prescribed in the regulations adopted pursuant to Section 25503 if the business handles a hazardous material or a mixture containing a hazardous material that has a quantity at any one time above the thresholds described in Section 25507(a) (1) through (8).

Depending on the specific tenants of the project site, the project would also be required to implement health and safety policies and procedures regarding hazardous materials used where employees would be expected to handle or work around hazardous materials. Pursuant to the Federal Hazard Communication Standard (29 CFR 1910.1200) and the Laboratory Standard (29 CFR 1910.1450), Safety Data Sheets (SDS) outlining procedures to address spills and leaks for individual chemicals would be used to conduct chemical safety training for all employees who work with chemicals in order to minimize the occurrence of accidental chemical releases and ensure that, when one does occur, it is handled in a safe manner.

These regulations inherently safeguard life and property from the hazards of fire/explosion arising from the storage, handling, and use of hazardous substances, materials, and devices, as well as hazardous conditions due to the use or occupancy of buildings. Through compliance with all applicable federal, state, and local laws, impacts to the public or environment from the routine transportation, use and disposal of hazardous materials would be **less than significant**. No mitigation is required.

b) 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?	☐	☐	☒	☐

Response:

Less Than Significant Impact. Refer to Checklist Response 9.a. There is no indication the project site was used for agricultural purposes. Review of historic period maps and online research indicated there was formerly a house on one of the currently undeveloped parcel (APN 479-120-027) constructed prior to 1930 and removed by 2002 (Appendix C). As detailed above, the service station use would be required to comply would all applicable federal, state, and local laws and regulations regarding hazardous materials. The underground fuel storage tanks would also require permitting and monitoring by the City Fire Department and the County Department of Environmental Health as the Certified Unified Program

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Agency (CUPA) for Riverside County. With compliance with regulations, the project would have a **less than significant** impact related to the release of hazardous materials, and no mitigation is required.				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
Response: *No Impact.* The nearest existing or proposed school is the Riverside County Education Academy located at 13730 Perris Boulevard approximately 0.45 mile south of the project site. Since no existing schools or proposed schools are within 0.25 mile of the project site, **no impact** associated with this issue would occur. No mitigation is required.				
d) 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?	☐	☐	☐	☒
Response: *No Impact.* According to the EnviroStor website,[27] no hazardous material sites on or adjacent to the proposed project site were identified. The closest site is the Moreno Valley Regional Learning Center located approximately 2,400 feet south of the project site. The site type was a school investigation with a "no further action determination" as of May 21, 2007. Therefore, **no impact** related to this issue would occur, and no mitigation is required.				
e) 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 or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
Response: *Less Than Significant Impact.* The closest airport is the March Air Reserve Base/Inland Port Airport located approximately 2.75 miles southwest of the project site. The project site is not located within the airport influence zone of March Air Reserve Base.[28] Due to the distance of this airport from the project site, implementation of the proposed project would not result in a safety hazard or excessive noise levels for people residing or working in the area. Therefore, **no impact** related to this issue would occur, and no mitigation is required.				
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
Response: Less Than Significant Impact. The project site is currently vacant and unoccupied. Construction activities that could temporarily restrict vehicular traffic would incorporate appropriate measures to facilitate the passage of persons and vehicles through/around any temporary road closures in accordance with the California Fire Code. During construction, standard traffic control devices such as warning signs, warning lights, and flaggers will be utilized as applicable to minimize obstructions and ensure the safe passage of emergency vehicles as necessary for the purposes of coordinating efforts during local, State, and/or federal emergency events, including response to hazardous materials incidents. Implementation of these traffic control measures will include guidance and navigational tools throughout the project area in order to maintain traffic flow and safety during construction. The project is proposed with three driveways (one each along Perris Boulevard, Dracaea Avenue, and Atwood Avenue) that would provide entry and exit points for emergency access. The project site does				

[27] California Department of Toxic Substances Control. *EnviroStor, Site/Facility Search.* https://www.envirostor.dtsc.ca.gov/public/map/?global_id=60000502. (Accessed June 20, 2019).

[28] Riverside County Airport Land Use Commission. *March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan.* Map MA-1: Compatibility Map. November 13, 2017.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

not include gates, thereby facilitating immediate fire department access to the site in the event of an emergency. Fire department emergency vehicle apparatus access road locations and design shall be in accordance with the California Fire Code, Riverside County Ordinance No. 787, and Moreno Valley/Riverside County Fire Department Standards to ensure proper roadway turning radii, fire lane widths, etc. Additionally, the project site layout includes provisions for emergency vehicle access, which also would be reviewed for adequacy by the Moreno Valley/Riverside County Fire Department. Therefore, impacts would be less than significant, and mitigation is not required.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Response:

No Impact. No portion of the project site and its surroundings are identified as being within a "very high" wildfire zone.[29] Additionally, fire hazard severity zones published by the California Department of Forestry and Fire Protection do not identify the site as being within either a moderate, high, or very high fire hazard severity zone.[30] Therefore, the proposed project would not expose people or property to new increased wildland fire risks. Therefore, there would be **no impact** relating to exposure of people or structures to wildland fires from project implementation. No mitigation is required.

Sources:

1. Moreno Valley General Plan, adopted July 11, 2006
   - Chapter 6 – Safety Element – Section 6.2.8 – Wildland Urban Interface
   - Chapter 6 – Safety Element – Section 6.9 – Hazardous Materials
   - Chapter 6 – Safety Element – Section 6.10 – Air Crash Hazards
     - Figure 6-5 – Air Crash Hazards
2. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
   - Section 5.5 – Hazards and Hazardous Materials
     - Figure 5.5-1 – Hazardous Materials Sites
     - Figure 5.5-2 – Floodplains and High Fire Hazard Areas
     - Figure 5.5-3 – City Areas Affected by Aircraft Hazard Zones
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
4. March Air Reserve Base (MARB)/March Inland Port (MIP) Airport Land Use Compatibility Plan (ALUCP) on November 13, 2014, (http://www.rcaluc.org/Portals/13/17%20-%20Vol.%201%20March%20Air%20Reserve%20Base%20Final.pdf?ver=2016-08-15-145812-700)
5. Local Hazard Mitigation Plan, City of Moreno Valley Fire Department, adopted October 4, 2011, amended 2017, http://www.moval.org/city_hall/departments/fire/pdfs/haz-mit-plan.pdf
   - Chapter 5 – Wildland and Urban Fires
     - Figure 5-2 – Moreno Valley High Fire Area Map 2016
   - Chapter 12 – Dam Failure/Inundation
     - Figure 12-2 Moreno Valley Evacuation Routes Map 2015
   - Chapter 13 – Pipeline
     - Figure 13-1 – Moreno Valley Pipeline Map 2016
   - Chapter 14 – Transportation
     - Figure 14-1.1 – Moreno Valley Air Crash Hazard Area Map 2016
   - Chapter 16 – Hazardous Materials Accident
     - Moreno Valley Hazardous Materials Site Locations Map 2016
6. Emergency Operations Plan, City of Moreno Valley, March 2009, http://www.moval.org/city_hall/departments/fire/pdfs/mv-eop-0309.pdf
   - Hazard Mitigation and Hazard Analysis
   - Threat Assessment 2 – Hazardous Materials

[29] City of Moreno Valley. *Moreno Valley General Plan Final Program EIR*. Floodplains and High Fire Hazard Areas, Figure 5.5-2. July 2006.

[30] California Department of Forestry and Fire Protection. *Fire Hazard Severity Zones in SRA and Very High Fire Hazard Severity Zones in LRA*. 2007. http://www.fire.ca.gov/fire_prevention/fhsz_maps_riversidewest. (Accessed June 20, 2020).

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

- Threat Assessment 3 – Wildfire
- Threat Assessment 6 – Transportation Emergencies
  - Figure 17 – Air Crash Hazards

X. HYDROLOGY AND WATER QUALITY – Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐

Response:

Less Than Significant with Mitigation Incorporated. The Santa Ana Regional Water Quality Control Board (RWQCB) adopted the Water Quality Control Plan for the Santa Ana Region (Basin Plan, updated February 2016), which sets water quality standards for all ground and surface waters within the project's region.

During construction, there is the potential for soil erosion and discharge of pollutants into drainages or storm drains. Therefore, as described in **Mitigation Measure HYD-1**, the project shall comply with the provisions of the Construction General Permit Order No. 2009-0009-DWQ as required by the RWQCB. Additionally, as described in **Mitigation Measure HYD-2**, the project shall prepare a Storm Water Pollution Prevention Plan (SWPPP) pursuant to the provisions of the Riverside County Flood Control and Water Conservation District National Pollutant Discharge Elimination System (NPDES) Permit Order No. R8-2013-0024, NPDES No. CAS 618033. Finally, as described in **Mitigation Measure HYD-3**, the project shall submit a Final Water Quality Management Plan (Final WQMP) to the City for review and approval to ensure operation of the project complies with the NPDES Permit.

The NPDES permit regulates storm water discharges from construction sites which result in disturbance of at least one acre of soil, and/or are smaller sites that are part of a larger common plan of development. Additionally, as part of the SWPPP, the project shall identify best management practices (BMPs) to address water quality impacts associated with construction operations. Construction BMPs would include, but not be limited to, erosion control and sediment control BMPs designed to minimize erosion and retain sediment on site and good housekeeping BMPs to prevent spills, leaks, and discharge of construction debris and waste into receiving waters. The SWPPP would be developed, and construction BMPs selected and implemented, to target pollutants of concern during construction. The construction BMPs would be designed to retain sediment and other pollutants on site so they would not reach receiving waters or degrade beneficial uses. In addition, the project applicant has submitted project-specific Water Quality Management Plans (WQMPs) for the proposed project, which would be required to be implemented throughout project operation.[31,32]

Implementation of **Mitigation Measures HYD-1** through **HYD-3** would ensure potential water quality standards impacts would be **less than significant with mitigation incorporated**.

Mitigation Measure HYD-1: Prior to the issuance of a grading permit, the project applicant shall file and obtain a Notice of Intent (NOI) with the Regional Water Quality Control Board (RWQCB) in order to be in compliance with the State NPDES General Construction Storm Water Permit for discharge of surface runoff associated with construction activities. Evidence that this has been obtained (i.e., a copy of the Waste Discharger's Identification Number) shall be submitted to the City for coverage under the NPDES General Construction Permit. The NOI shall address the potential for an extended and discontinuous construction period based on funding availability.

Mitigation Measure HYD-2: Prior to the issuance of a grading permit, the project applicant shall prepare a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall include a surface water control plan and erosion control

[31] Kimley Horn and Associates, Inc. *Project Specific Water Quality Management Plan, 7-Eleven Moreno Valley*. May 28, 2019.
[32] Kimley Horn and Associates, Inc. *Project Specific Water Quality Management Plan, Drive-Thru Restaurant Moreno Valley*. May 28, 2019.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

plan citing specific measures to control on-site and off-site erosion during the entire grading and construction period. In addition, the SWPPP shall emphasize structural and nonstructural Best Management Practices (BMPs) to control sediment and non-visible discharges from the site. The SWPPP would include inspection forms for routine monitoring of the site during construction phase to ensure NPDES compliance and additional BMPs and erosion control measures would be documented in the SWPPP and utilized if necessary. The SWPPP shall address the potential for an extended and discontinuous construction period based on funding availability. The SWPPP would be kept on site for the entire duration of project construction and would be available to the local RWQCB for inspection at any time. BMPs included in the SWPPP may include the following:

- Sediment discharges from the site may be controlled by the following: sandbags, silt fences, straw wattles and temporary basins (if deemed necessary), and other discharge control devices. The construction and condition of the BMPs would be periodically inspected during construction and repairs would be made when necessary as required by the SWPPP.
- Materials that have the potential to contribute to non-visible pollutants to storm water must not be placed in drainage ways and must be contained, elevated, and placed in temporary storage containment areas.
- All loose piles of soil, silt, clay, sand, debris, and other earthen material shall be protected in a reasonable manner to eliminate any discharge from the site. Stockpiles would be surrounded by silt fences and covered with plastic tarps.
- In addition, the construction contractor shall be responsible for performing and documenting the application of BMPs identified in the SWPPP. Weekly inspections shall be performed on sandbag barriers and other sediment control measures called for in the SWPPP. Monthly reports and inspection logs shall be maintained by the Contractor and reviewed by the City and the representatives of the State Water Resources Control Board. In the event that it is not feasible to implement specific BMPs, the City can make a determination that other BMPs would provide equivalent or superior treatment either on or off site.

Mitigation Measure HYD-3: Prior to the issuance of a grading permit, the Project Applicant shall submit a Final Water Quality Management Plan (Final WQMP) to the City of Moreno Valley (City) for review and approval. The project shall implement project design features identified in the Final WQMP. The Final WQMP shall demonstrate that any proposed on-site development plan includes best management practices (BMPs) for source control, pollution prevention, site design, low impact development (LID) implementation, and structural treatment control. BMPs shall be designed and implemented to address 303(d) listed pollutants and retain the project site's minimum design capture volume and hydromodification volume to ensure post-development storm water runoff volume or time of concentration does not exceed pre-development storm water runoff by more than 10 percent of the two-year peak flow in accordance with the Santa Ana Regional Water Quality Control Board Order Number R8-2010-0033, National Pollutant Discharge Elimination System (NPDES) Permit No. CAS618033, as amended by Order No. R8-2013-0024, also known as the Municipal Separate Storm Sewer System (MS4) permit. The proposed LID BMPs

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
specified in the Final WQMP shall be incorporated into the grading and development plans submitted to the City for review and approval. Periodic maintenance of any required BMPs and landscaped areas during project occupancy and operation shall be in accordance with the schedule outlined in the Final WQMP. This measure shall be implemented to the satisfaction of the City Public Works Department.				
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☒	☐	☐

Response:

Less Than Significant with Mitigation Incorporated. Groundwater in the project area is managed and distributed by the Eastern Municipal Water District (EMWD). The EMWD is required by state law (Urban Water Planning Management Act or AB 797 in 1983) to prepare an Urban Water Management Plan (UWMP) to identify its sources/supplies of potable water, its historical and projected consumption by its customers, and evaluate various mandated scenarios for water shortages (e.g., single dry year, and multiple dry years) to assure its customers and the state that it would have adequate water supplies now and in the future, even under expected drought conditions.

The EMWD considers current groundwater production to be utilized completely by existing customers, as the majority of EMWD's current and projected water supplies are imported through the Metropolitan Water District (MWD).[33] New developments, including the proposed project, would be supplied with imported water from one of the following sources: (1) treated imported water from MWD; (2) untreated imported water from MWD, which is subsequently treated by EMWD; or (3) untreated imported water treated by EMWD and recharged into groundwater basins for later withdrawal.

MWD's 2015 Urban Water Management Plan (UWMP) provides information about MWD's regional supply reliability and projected demands. Based on information provided by EMWD and other member agencies, MWD concludes that it is able to meet projected demands for all member agencies through 2040, even during dry periods.[34] Under extreme conditions, water supplies could be allocated using the MWD Water Supply Allocation Plan (WSAP) to preserve supplies in storage by requiring a reduction in demand by member agencies, including the EMWD, pursuant to SB 1168 and 1319, and AB 1739. Since the proposed project would not be served via groundwater, and the project through implementation of **Mitigation Measure HYD-3** would not preclude or obstruct on-site infiltration of storm water into the local groundwater aquifer, the project would not deplete groundwater supplies or interfere with groundwater recharge. Impacts would be **less than significant with mitigation incorporated**.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial erosion or siltation on- or off-site?	☐	☒	☐	☐

Response:

Less Than Significant with Mitigation Incorporated. Development of the proposed project (buildings and pavement) would alter the amount of existing impervious surface area and the amount of generated runoff. Currently, runoff generally drains from the southeast to the northwest. No streams, rivers, or other drainage features are located on site. The proposed project would construct structures and impervious surfaces that could potentially alter the current drainage pattern. Pursuant to the requirements of the NPDES permit, as discussed previously, excess flows and sediment would be captured by BMPs identified in the SWPPP and WQMP (**Mitigation Measures HYD-2** and **HYD-3)**. Therefore, the project is not expected to result in substantial erosion or siltation. Additionally, a drainage study determined that implementation of the BMPs outlined in the WQMP would decrease the ultimate amount of runoff to the

[33] Eastern Municipal Water District. *2015 Urban Water Management Plan.* Page 7-1. June 2016.
[34] The Metropolitan Water District of Southern California. *2015 Urban Water Management Plan.* Tables 2-4, 2-5, and 2-6. June 2016.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
existing storm drain system.[35] Therefore, impacts would be **less than significant with mitigation incorporated**.				
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	☐	☒	☐	☐
Response: *Less Than Significant with Mitigation Incorporated.* Refer to Section 10.c.i. No streams, rivers, or other drainage features are located on site. Pursuant to the requirements of the NPDES permit, as discussed previously, the project would result in a decrease in stormwater runoff, and excess flows and sediment would be captured by BMPs identified in the SWPPP and WQMP (**Mitigation Measures HYD-2** and **HYD-3)**. Therefore, impacts would be **less than significant with mitigation incorporated.**				
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☒	☐	☐
iv) Impede or redirect flood flows?	☐	☒	☐	☐
Response: *Less Than Significant with Mitigation Incorporated.* Refer to Section 10.c.i. The site slopes down from north to south toward Dracaea Avenue. Through implementation of **Mitigation Measure HYD-2**, a SWPPP would be implemented to ensure the project does not generate substantial polluted runoff during construction. Additionally, **Mitigation Measure HYD-3** would require the project Applicant to prepare a Final WQMP that shall demonstrate the BMPs for source control, pollution prevention, site design, LID implementation, and structural treatment control are designed and implemented to address 303(d) listed pollutants. The BMPs shall retain the project site's minimum design capture volume and hydromodification volume to ensure post-development storm water runoff volume or time of concentration does not exceed pre-development storm water runoff by more than 10 percent of the two-year peak flow in accordance with the City's MS4 permit. Therefore, impacts would be **less than significant with mitigation incorporated**.				
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
Response: *No Impact.* The project site is not located within a 100-year flood hazard area.[36] Two locations of concern exist within the City of Moreno Valley: Poorman's Reservoir (Pigeon Pass Reservoir) and Lake Perris. Dam failure at Poorman's Reservoir could result in extensive flooding along the downstream watercourse. Dam failure at Lake Perris would only affect a very small area south of Nandina Avenue along the Perris Valley Storm Drain and the Mystic Lake area in the southeast corner of the City.[37] According to the City's General Plan, the project site would not expose people or structures to a risk of loss, injury or death involving the failure of a levee or dam.[38] The Project site is located approximately 4.75 miles north of Lake Perris. At this distance, the Project site is not considered susceptible to seiche-related hazards originating at Lake Perris. Since the project is not in a flood hazard, tsunami, or seiche zone, risk from release of pollutants from project inundation would be **less than significant**. Mitigation is not required.				
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐
Response: *Less than Significant Impact.* Refer to Checklist Responses 10.a, 10.b, and 10.c.i. With implementation of **Mitigation Measures HYD-1** through **HYD-3** impacts from conflict with a water quality control plan or				

[35] Kimley Horn and Associates, Inc. *City of Moreno Valley Preliminary Drainage Study for Cadence Capitol Investments, Perris Blvd and Dracaea Avenue, APN: 479-120-027, 029, 042, 043.* Page 5. April 2020.
[36] City of Moreno Valley. *City of Moreno Valley General Plan*. Figure 6-4 "Flood Hazards," Chapter 6-Safety. July 11, 2006.
[37] City of Moreno Valley. *City of Moreno Valley General Plan*. Chapter 6-Safety. July 11, 2006.
[38] *Ibid.*

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

a sustainable groundwater management plan would remain **less than significant.** Mitigation is not required.

Sources:

1. Moreno Valley General Plan, adopted July 11, 2006
   - Chapter 6 – Safety Element – Section 6.7 – Water Quality
     - Figure 6-4 – Flood Hazards
   - Chapter 7 – Conservation Element – Section 7.5 – Water Resources
     - Figure 7-1 Water Purveyor Service Area Map
2. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
   - Section 5.5 – Hazards and Hazardous Materials
     - Figure 5.5-2 – Floodplains and High Fire Hazard Areas
   - Section 5.7 – Hydrology and Water Quality
     - Figure 5.7-1 – Storm Water Flows and Major Drainage Facilities
     - Figure 5.7-2 – Groundwater Basins
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
   - Section 9.10.080 – Liquid and Solid Waste
4. Moreno Valley Municipal Code Chapter 8.12 – Flood Damage Prevention
5. Moreno Valley Municipal Code Chapter 8.21 – Grading Regulations
6. Eastern Municipal Water District (EMWD) Groundwater Reliability Plus, http://gwrplus.org/
7. Eastern Municipal Water District (EMWD) 2015 Urban Water Management Plan

XI. LAND USE AND PLANNING – Would the project:

a) Physically divide an established community?	☐	☐	☐	☒

Response:
No Impact. The project proposes the development of a service station and drive through restaurant on land with a General Plan designation of Residential /Office and a zoning designation of Office Commercial (OC) District. The proposed uses are not allowed under the existing zoning designation of the site; therefore, the project includes a General Plan Amendment to designate the project site Commercial and a Change of Zone to Community Commercial (CC) District. Surrounding land uses include single-family residential uses adjacent to the north and east, single-family residential and commercial uses to the west across Perris Boulevard, and single-family residential uses and vacant property to the south across Dracaea Avenue. Commercial uses including a service station and convenience store are located across Perris Boulevard to the west and southwest, and single-family residences and commercial uses are located to the northwest (refer to Figures 1 and 2). The project is proposed on vacant property at the northeast corner of Perris Boulevard and Dracaea Avenue and would not introduce features such as highways or transit lines that would divide an established community. **No impact** regarding dividing an established neighborhood would occur. No mitigation is required.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Response:
Less than Significant Impact. As previously discussed, the proposed project includes processing a General Plan Amendment to the land use designation of the site from Residential/Office to Commercial and a Change of Zone from Office Commercial (OC) District to Community Commercial (CC) District, so the proposed uses would be compatible with City zoning regulations. Pursuant to CEQA, policy conflicts do not in and of themselves constitute a significant environmental impact. Policy conflicts are considered to be environmental impacts only when they would result in direct physical impacts or where those conflicts relate to avoiding or mitigating environmental impacts. As such, this Initial Study analyzes associated physical environmental impacts that could result from development of the project site as proposed (Commercial) under each topical section. The Initial Study evaluates those impacts against the baseline condition (vacant undeveloped site) where applicable (e.g., noise, air quality) and against the previously anticipated Residential/Office use per the General Plan (e.g., population and housing, growth

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

inducement). As indicated throughout this Initial Study, the proposed project would not result in any direct physical impacts that cannot be mitigated to a less-than-significant level, as described throughout this Initial Study. Therefore, this impact would be **less than significant**. No additional mitigation is required.

Sources:

1. Moreno Valley General Plan, adopted July 11, 2006
   - Chapter 2 – Community Development Element – Section 2.1 – Land Use
     - Figure 2-1 – Neighboring Lands Uses
     - Figure 2-2 – Land Use Map
   - Chapter 8 – 2014 – 2021 Housing Element
2. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
   - Section 5.12 – Population and Housing
     - Attachments #1 - #10 – Housing Sites Inventory
     - Exhibits A1 – A11, C, D, and E – Maps of Housing Sites
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code

XII. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

Response:

No Impact. The Project site is vacant and undeveloped. As described in the City's General Plan Final Program EIR, no regionally or statewide significant mineral resources are located within the City's planning area.[39] The mineral resources known to occur within the City of Moreno Valley's Sphere of Influence include sand, gravel and rock which is used to make concrete and as road base.[40] Due to the absence of significant mineral resources within or near the project site, **no impact** would occur. Mitigation is not required.

Sources:

1. Moreno Valley General Plan, adopted July 11, 2006
   - Chapter 7 – Conservation Element – Section 7.9 – Mineral Resources
2. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
   - Section 5.14 – Mineral Resources
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
   - Section 9.02.120 – Surface Mining Permits
4. Moreno Valley Municipal Code Section 8.21.020 A 7 – Permits Required
5. The Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code, Sections 2710-2796), https://www.conservation.ca.gov/dmr/lawsandregulations
6.

XIII. NOISE – Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐

Response:

[39] City of Moreno Valley. *Moreno Valley General Plan Final Program EIR.* Chapter 5.14 – Mineral Resources. July 11 2006.
[40] City of Moreno Valley. *City of Moreno Valley General Plan.* Chapter 7 – Conservation, 7.8 Mineral Resources. July 11, 2006.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

A detailed assessment of noise impacts for the proposed project based on the project development characteristics is included in Appendix D.[41]

Less than Significant with Mitigation Incorporated

Short-Term Noise. Two types of short-term noise impacts would occur during construction on the project site. First, construction crew commutes and the transport of construction equipment to the project site would incrementally increase noise levels on access roads leading to the site. There would be a relatively high single-event noise exposure potential causing intermittent noise from large trucks passing at 50 feet that would generate up to a maximum of 84 dBA. The grading phase would generate the highest daily construction vehicle trips based on the CalEEMod output, shown in Attachment C of Appendix A. Project construction vehicle trips associated with construction crew commute trips and transport of construction equipment are estimated to reach up to 26 vehicles per hour or 201 vehicles per day (roundtrip) during the grading construction phase. Perris Boulevard and Dracaea Avenue would be used to access the project site, which has estimated existing hourly/daily traffic volumes of 2,958/29,577 and 491/4,912, respectively. Construction-related traffic would increase hourly traffic noise levels by up to 0.2 dBA and would not increase daily traffic noise levels along Perris Boulevard and Dracaea Avenue. A noise level increase of less than 3 dBA would not be perceptible to the human ear in an outdoor environment. Therefore, no noise impacts from short-term construction-related traffic associated with worker commutes and equipment transport to the project site would occur.

The second type of short-term noise impact is related to noise generated during construction activities on the project site. Construction is completed in discrete steps, each of which has its own mix of equipment, and consequently, its own noise characteristics. These various sequential phases would change the character of noise generated on the project site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table 13.A lists the typical construction equipment noise levels (L_{max}) recommended for noise impact assessments, based on a distance of 50 feet between the equipment and a noise receptor.

Typical noise levels range up to 88 dBA L_{max} at 50 feet during the noisiest construction phases. The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery such as backfillers, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders.

Table 13.A: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor (%)	Maximum Noise Level (L_{max} at 50 feet)
Concrete/Industrial Saw	20	90
Dozers	40	85
Dump Trucks	40	84
Excavators	40	85
Flat Bed Trucks	40	84
Graders	40	85
Front-End Loaders	40	80
Man Lifts	20	85
Pickup Trucks	40	55
Scrapers	40	85

Source: Table I, LSA, September 2020 (Appendix D).

Site preparation is expected to require the use of bulldozers, graders, and water trucks/pickup trucks. Noise associated with the use of construction equipment is estimated to be between 55 and 85 dBA L_{max} at a distance of 50 feet from the active construction area for the site preparation phase. As shown in

[41] LSA Associates, Inc. *Noise and Vibration Impact Analysis Memorandum for the Commercial Retail Project at Perris Boulevard and Dracaea Avenue in the City of Moreno Valley, California.* September 2020. (Appendix D).

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Table 13.A, the maximum noise level generated by each grader and bulldozer is assumed to be approximately 85 dBA L_{max} at 50 feet. The maximum noise level generated by water trucks/pickup trucks is approximately 55 dBA L_{max} at 50 feet from these vehicles. Each doubling of the sound sources with equal strength increases the noise level by 3 dBA. Assuming that each piece of construction equipment operates at some distance from the other equipment, the worst-case combined noise level during this phase of construction would be 88 dBA L_{max} at a distance of 50 feet from the active construction area. Based on a usage factor of 40 percent, the worst-case combined noise level during this phase of construction would be 84 dBA L_{eq} at a distance of 50 feet from the active construction area.

The closest residential property lines are located within 50 feet immediately adjacent to the northern and eastern project construction boundary and would be subject to short-term construction noise levels of 88 dBA L_{max} (84 dBA L_{eq}) or higher when construction occurs at the project construction boundary. Noise generated by project construction activities would result in a temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. Compliance with the construction hours specified in the City's Municipal Code Section 8.21.050(O) and Section 11.80.030(D)(7) and implementation of **Mitigation Measure NOI-1** would reduce short-term construction noise impacts to **less than significant with mitigation incorporated**.

Mitigation Measure NOI-1: Prior to the issuance of a grading permit and during all phases of construction, the project applicant shall ensure the following measures are incorporated:

- The construction contractor shall limit all grading-related activities, including operation of grading equipment, to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between the hours of 8:00 a.m. and 4:00 p.m. on Saturday in accordance with Moreno Valley Municipal Code Section 8.21.050(O).
- The construction contractor shall limit the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work, to between the hours of 7:00 a.m. and 8:00 p.m. every day in accordance with Moreno Valley Municipal Code Section 11.80.030(D)(7).
- During all project site excavation and grading, the project contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
- The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.
- The construction contractor shall locate equipment staging in areas that would create the greatest distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.

Long-Term Noise. *Traffic Noise:* The FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77 108) was used to evaluate traffic-related noise conditions along roadway segments in the project vicinity. This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry, to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The resultant noise levels are weighted and summed over 24-hour periods to determine the CNEL values. The existing, 2022 opening year, and 2040 (General Plan Buildout) without and with project ADT volumes were obtain from the Transportation Impact Analysis (included in Appendix E). The standard vehicle mix for Southern California roadways was used for traffic on these roadway segments. Tables L, M, and N in Appendix D provide the traffic noise levels for the existing, 2022 opening year, and 2040 (General Plan Buildout) without and with project, respectively. These noise levels represent the worst-case scenario, which assumes that no shielding is provided between traffic and the location where the noise contours are drawn. Attachment C in Appendix D provides the specific assumptions used in developing these noise levels and model printouts.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Tables L, M, and N in Appendix D show that the project-related traffic noise increase would be up to 0.2 dBA along Perris Boulevard, 1.6 dBA along Dracaea Avenue, and 13.2 dBA along Sunset Lane. It should be noted that traffic noise on Sunset Lane would increase due to access to the project from Sunset Lane. However, the overall traffic noise increase for the residences along Sunset Lane would be 0.2 dBA when traffic noise on Perris Boulevard is factored in.[42] Noise level increases less than 3 dBA would not be perceptible to the human ear in an outdoor environment. Therefore, the proposed project would have a **less than significant impact** related to traffic noise from project-related traffic on off-site sensitive receptors. No noise reduction measures are required.

Truck Deliveries and Truck Loading and Unloading Activities: Section 11.80.030(C) of the City Municipal Code indicates 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 non-impulsive sound which exceeds [the City's exterior daytime and nighttime noise standard of 65 dBA L_{eq} and 60 dBA L_{eq}] when measured at a distance of 200 feet or more from the real property line of the source of the sound. Because sensitive receptors may occur closer than 200 feet from the real property line of the noise source, this analysis includes assessment of noise impacts also based on equivalent exterior daytime and nighttime noise standards to account for actual distances between the noise source and the sensitive receptor. For example, while the City's exterior daytime and nighttime noise standard is respectively 65 dBA L_{eq} and 60 dBA L_{eq} when measured at a distance of 200 feet or more from the real property line of the sound source, the equivalent exterior daytime and nighttime noise standard at 100 feet from the real property line of the sound source would be respectively 71 dBA L_{eq} and 66 dBA L_{eq} because sound levels increase approximately 6 dB for each halving of distance from the source.[43]

Noise levels generated by delivery trucks would be similar to noise readings from truck loading and unloading activities, which generate a noise level of 65 dBA L_{eq} at 50 feet.[44] Although a typical truck unloading process takes an average of 15–20 minutes, this maximum noise level occurs in a much shorter period of time (less than 5 minutes). The closest residential properties to the anticipated truck delivery and loading/unloading areas are located as close as 100 feet to the east and north. As Table 13.B shows, noise levels generated by truck delivery and unloading/unloading activities would be 53 dBA L_{eq} at 200 feet from the source and 59 dBA L_{eq} at 100 feet from the source. Therefore, truck delivery and loading/unloading activities would not exceed the City's exterior daytime and nighttime noise standard of 65 dBA L_{eq} and 60 dBA L_{eq} when measured at a distance of 200 feet or equivalent standard of 71 dBA L_{eq} and 66 dBA L_{eq} when measured at a distance of 100 feet. Therefore, the project would have a **less-than-significant impact** related to truck deliveries and truck loading/unloading activities on off-site sensitive receptors. No noise reduction measures are required.

Table 13.B: Truck Delivery and Unloading Activities

Activity	Reference Noise Level (dBA L_{eq})	Reference Distance (feet)	Noise Attenuation at 100 feet / 200 feet (dBA)[1]	Noise Level at 100 feet / 200 feet (dBA L_{eq})
Truck Delivery and Unloading Activities	65	50	6 / 12	59 / 53

Source: Table O, LSA, September 2020 (Appendix D).

[1] Sound levels decrease approximately 6 dB for each doubling of distance from the source. California Department of Transportation. *Technical Noise Supplement to the Traffic Noise Analysis Protocol.* Pages 2-27 and 2-28. September 2013.

HVAC Equipment: The project would construct a new convenience store and a restaurant with a drive-through lane that would have up to four rooftop HVAC units on each building. The HVAC equipment could potentially operate 24 hours per day. Rooftop HVAC equipment would generate noise levels of 66.5 dBA L_{eq} at 5 feet. Four rooftop HVAC units operating together would generate a noise level of 73 dBA L_{eq} at 5 feet.[45] The closest residential properties to the HVAC equipment are located as close as 45 feet to the east and north. As Table 13.C shows, noise levels generated by four HVAC units operating

[42] Perris Boulevard is parallel to Sunset Lane approximately 70 feet to the west. The detailed noise calculations are provided in Attachment D of Appendix D.

[43] California Department of Transportation. *Technical Noise Supplement to the Traffic Noise Analysis Protocol.* Pages 2-27 and 2-28. September 2013.

[44] LSA Associates, Inc. *Noise and Vibration Impact Analysis Memorandum for the Commercial Retail Project at Perris Boulevard and Dracaea Avenue in the City of Moreno Valley, California.* Page 19 and Table O. September 2020.

[45] *Ibid.* Page 19 and Table P.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

simultaneously would be 41 dBA L_{eq} at 200 feet from the source and 54 dBA L_{eq} at 45 feet from the source. Therefore, operation of HVAC equipment would not exceed the City's exterior daytime and nighttime noise standard of 65 dBA L_{eq} and 60 dBA L_{eq} when measured at a distance of 200 feet or equivalent standard of 78 dBA L_{eq} and 73 dBA L_{eq} when measured at a distance of 45 feet. Therefore, the project would have a **less-than-significant impact** related to HVAC equipment on off-site sensitive receptors. No noise reduction measures are required.

Table 13.C: HVAC Equipment

Activity	Number of HVAC units	Reference Noise Level (dBA L_{eq})	Reference Distance (feet)	Noise Attenuation at 100 feet / 200 feet (dBA)[1]	Noise Level at 100 feet / 200 feet (dBA L_{eq})
HVAC Equipment	4	73	5	19 / 32	54 / 41

Source: Table Q, LSA, September 2020 (Appendix D).
[1] Sound levels decrease approximately 6 dB for each doubling of distance from the source. California Department of Transportation. *Technical Noise Supplement to the Traffic Noise Analysis Protocol.* Pages 2-27 and 2-28. September 2013.

Drive Through Menu Board Speaker Noise: The project would construct a restaurant with a drive-through speakerphone that is part of the menu board. Although Section 9.09.080(C)(1) of the City's Municipal Code limits the hours of drive through operation to between the hours of 6:00 a.m. and 10:00 p.m. when located on a site adjacent to any residentially zoned property, Section 9.09.020 allows the decision-making body discretion to allow an alternative that "adequately protects the public health, safety and welfare." There is potential for the proposed drive through restaurant to operate 24 hours per day, so this analysis considers menu board speaker noise during both daytime and nighttime hours.

Section 9.09.080(C)(6) of the Code indicates the drive through menu board speaker system shall be designed to compensate for ambient noise levels in the immediate area and shall not be located within 100 feet of any property used for residential uses. Noise generated from drive through menu board speakers is approximately 81 dBA at 1 foot.[46] The closest residential properties to the menu board speaker are located 100 feet to the east and north. As Table 13.D shows, noise levels generated by the menu board speaker would be 35 dBA L_{eq} at 200 feet from the source and 41 dBA L_{eq} at 100 feet from the source. Therefore the drive through menu board speaker system would not exceed the City's exterior daytime and nighttime noise standard of 65 dBA L_{eq} and 60 dBA L_{eq} when measured at a distance of 200 feet or equivalent standard of 71 dBA L_{eq} and 66 dBA L_{eq} when measured at a distance of 100 feet. Therefore, operation of the drive through menu board speaker 24 hours per day would have a **less than significant impact** related to noise on off-site sensitive receptors. Mitigation is not required.

Table 13.D: Drive Through Menu Board Speaker Noise

Activity	Reference Noise Level (dBA L_{eq})	Reference Distance (feet)	Noise Attenuation at 100 feet / 200 feet (dBA)[1]	Noise Level at 100 feet / 200 feet (dBA L_{eq})
Drive Through Menu Board Speaker Operation	81	1	40 / 46	41 / 35

Source: Table Q, LSA, September 2020 (Appendix D).
[1] Sound levels decrease approximately 6 dB for each doubling of distance from the source. California Department of Transportation. *Technical Noise Supplement to the Traffic Noise Analysis Protocol.* Pages 2-27 and 2-28. September 2013.

Parking Lot Activities: The project would include parking areas on the project site. Noise generated from parking activities includes vehicles traveling at slow speeds, engine start-up noise, car door slams, car horns, car alarms, and tire squeals. Representative parking activities would generate approximately 60 to 70 dBA L_{max} at 50 feet.[47] The closest residential properties to the project parking lot are located 25 feet to the east and north. As Table 13.E shows, noise levels generated by parking lot activities would be 58 dBA L_{max} at 200 feet from the source and 76 dBA L_{max} at 25 feet from the source. Although parking activities generate relatively high maximum instantaneous noise levels (L_{max}), the equivalent continuous sound level (L_{eq}) would be much lower over an hour period. Therefore, noise generated from parking lot

[46] *Ibid.* Page 20 and Table Q.
[47] *Ibid.* Page 21 and Table R.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

activities would not exceed the City's exterior daytime and nighttime noise standard of 65 dBA L_{eq} and 60 dBA L_{eq} when measured at a distance of 200 feet or equivalent standard of 83 dBA L_{eq} and 78 dBA L_{eq} when measured at a distance of 100 feet. Impacts from parking lot activities would be **less than significant**. Mitigation is not required.

Table 13.E: Parking Lot Activities

Activity	Reference Noise Level (dBA L_{max})	Reference Distance (feet)	Noise Attenuation at 25 feet / 200 feet (dBA)[1]	Noise Level at 25 feet / 200 feet (dBA L_{eq})
Parking Lot Activities	70	50	-6 / 46	76 / 58

Source: Table S, LSA, September 2020 (Appendix D).
[1] Sound levels decrease approximately 6 dB for each doubling of distance from the source. California Department of Transportation. *Technical Noise Supplement to the Traffic Noise Analysis Protocol.* Pages 2-27 and 2-28. September 2013.

With implementation of **Mitigation Measure NOI-1,** short-term construction noise impacts would be reduced to **less than significant with mitigation incorporated**. The project would not increase long-term ambient noise in excess of the City's exterior daytime and nighttime noise standard of 65 dBA L_{eq} and 60 dBA L_{eq} when measured at a distance of 200 feet or more from the real property line of the source of the sound or the equivalent noise standard when measured at the nearest sensitive receptors. Therefore, long-term noise would be **less than significant,** and mitigation is not required.

b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐

Response:
Less Than Significant with Mitigation Incorporated. This construction vibration impact analysis discusses the level of human annoyance using vibration levels in VdB and would assess the potential for building damage using peak particle velocity (PPV), which is measured in inches per second (in/sec). Vibration thresholds for significance are established by the City under Section 9.10.170 of the Municipal Code and by the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual.*[48]

Section 9.10.170 of the Municipal Code prohibits vibration that can be felt at or beyond the property line. However, construction activity is exempt from Section 9.10.170 pursuant to Section 9.10.030, which states temporary construction, maintenance, or demolition activities between the hours of 7:00 a.m. and 7:00 p.m. are exempt from the provisions of Chapter 9.10 (Performance Standards) of the City Municipal Code. Implementation of **Mitigation Measure NOI-1** would ensure construction activities are restricted to within the permissible hours of operation in accordance with Municipal Code Section 8.21.050(O) and Section 9.10.030.

As shown in Table 13.F, the FTA guidelines indicate that a vibration level up to 102 VdB (equivalent to 0.5 PPV [in/sec]) is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster), and would not result in any construction vibration damage. For a non-engineered timber and masonry building, the construction vibration damage criterion is 94 VdB (0.2 PPV [in/sec]). For a fragile building, the construction vibration damage criterion is 90 VdB (0.12 PPV [in/sec]).

Table 13.F shows the PPV and VdB values at a distance of 25 feet from the construction vibration source. As shown in Table 13.F, large bulldozers and other heavy-tracked construction equipment (except for pile drivers and vibratory rollers) generate approximately 87 VdB of ground-borne vibration when measured at a distance of 25 feet, based on the Transit Noise and Vibration Impact Assessment Manual. Project construction is expected to use a small bulldozer, large bulldozer, and a loaded truck, which would generate 58 VdB (0.003 PPV [in/sec]), 87 VdB (0.089 PPV [in/sec]), and 86 VdB (0.076 PPV [in/sec] at 25 feet, respectively. The greatest levels of vibration are anticipated to occur during the site preparation and grading phase. All other phases are expected to result in lower vibration levels. The distance to the nearest buildings for vibration impact analysis is measured between the nearest off-site buildings and the project boundary (assuming the construction equipment would be used at or near the project boundary) because vibration impacts occur normally within buildings. An exception to this would

[48] Federal Transit Administration. *Transit Noise and Vibration Impact Assessment Manual.* September 2018.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

be the location of loaded trucks because they would be limited to a certain areas on the project site and would not operate at the project construction boundary.

Table 13.F: Vibration Source Amplitudes for Construction Equipment

Equipment	Reference PPV/L_V at 25 feet	
	PPV (in/sec)	L_V (VdB)
Hoe Ram	0.089	87
Large Bulldozer	0.089	87
Caisson Drilling	0.089	87
Loaded Trucks	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58

Sources: Table J, LSA, September 2020 (Appendix D).

ft = feet
L_V = velocity in decibels
VdB = vibration velocity decibels
in/sec = inches per second
PPV = peak particle velocity

The formula for vibration transmission is provided below.

$$L_vdB\ (D) = L_vdB\ (25\ feet) - 30\ Log\ (D/25)$$

$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$

Table 13.G lists the projected vibration levels from various construction equipment expected to be used on the project site to the nearest buildings in the project vicinity. As shown in Table 13.G, residential structures located east of the project would experience the highest construction vibration levels of up to 94 VdB (0.191 PPV [in/sec]). This vibration level would have the potential to result in community annoyance and because vibration levels would exceed the FTA's community annoyance threshold of 78 VdB for residential uses. However, this vibration level would not have the potential to damage residential structures because vibration levels would not exceed the FTA's damage threshold of 94 VdB (0.2 PPV [in/sec]) for residential structures constructed of non-engineered timber and masonry. Other residential and commercial structures in the project area shown in Table 13.G would experience lower vibration levels due to either the use of a small bulldozer or greater distance from the project construction boundary.

Table 13.G: Summary of Construction Equipment and Activity Vibration

Direction	Equipment/ Activity	Reference Vibration Level (VdB) at 25 feet	Reference Vibration Level (PPV) at 25 feet	Distance (feet)	Maximum Vibration Level (VdB)	Maximum Vibration Level (PPV)
North	Small Bulldozer	58	0.003	8	73	0.017
	Loaded Trucks	86	0.076	15	93	0.164
East	Large Bulldozer	87	0.089	15	94	0.191
	Loaded Trucks	86	0.076	15	93	0.164
Southwest	Small Bulldozer	58	0.003	8	73	0.017
	Loaded Trucks	86	0.076	15	93	0.164
West	Large Bulldozer	87	0.089	130	66	0.008
	Loaded Trucks	86	0.076	130	65	0.006

Source: Table K, LSA, September 2020 (Appendix D).
Note: The FTA-recommended building damage threshold is 0.2 PPV (in/sec) or approximately 94 VdB at the receiving residential/church structure and 0.3 PPV (in/sec) or approximately 98 VdB at the receiving commercial structure.

ft = foot/feet
in/sec = inch/inches per second
FTA = Federal Transit Administration
PPV = peak particle velocity
VdB = vibration velocity decibels

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Implementation of **Mitigation Measure NOI-1** would exempt any vibration that could be felt off-site during construction. However, there is potential for damage to buildings because the use of both small and large bulldozers on the project site would have the potential to exceed the FTA's damage thresholds at the north and southeast borders of the site. Implementation of **Mitigation Measure NOI-2** would ensure that this impact would be reduced to **less than significant with mitigation incorporated**.

Mitigation Measure NOI-2: The project applicant shall ensure that only small bulldozers are used within 15 feet of the residential structures immediately north and southeast of the project site to ensure vibration levels would not exceed the Federal Transit Administration's damage threshold of 94 velocity decibels (VdB) (0.2 peak particle velocity (PPV) [in/sec]) for buildings constructed of non-engineered timber and masonry. The project Applicant shall provide evidence to the City that this measure is incorporated into the project grading plans, and directional signage is placed on the construction site to direct equipment operators. This measure shall be implemented to the satisfaction of the Director of Building and Safety or designee.

The proposed project would not generate vibration during operation. According to the FTA *Transit Noise and Vibration Impact Assessment Manual*, vibration levels generated from project-related traffic on the adjacent roadways (Perris Boulevard, Dracaea Avenue, and local roadways leading to the project site) are unusual for on-road vehicles because the rubber tires and suspension systems of on-road vehicles provide vibration isolation.[49] Since the project consists of typical neighborhood-serving commercial uses (i.e., convenience store, service station, and restaurant) and includes new on-site drive aisles and roadway improvements along the project site frontage, vibration generated from operation of the project, including project-related traffic on the adjacent paved roadways, would be **less than significant**. The Project would not conflict with Section 9.10.170 of the Municipal Code, which prohibits vibration that can be felt at or beyond the property line, and no vibration reduction measures are required during operation.

c) For a project located within the vicinity of a private airstrip or 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?	☐	☐	☐	☒

Response:

No Impact. The proposed project is approximately 2.75 miles from the nearest airport (March Air Reserve Base). Based on the Riverside County Airport Land Use Compatibility Plan, the project is located outside of the 60-dBA CNEL noise contour of the airport. In addition, there are no private airstrips or heliports within 2 miles of the project site. The project would not expose people residing or working in the project area to excessive noise levels from aircraft noise. Therefore, **no impacts** would occur related to aircraft noise. Mitigation is not required.

Sources:

1. Moreno Valley General Plan, adopted July 11, 2006
   - Chapter 6 – Safety Element – Section 6.4 – Noise
     - Figure 6-2 – Buildout Noise Contours
2. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
   - Section 5.4 – Noise
     - Figure 5.4-1 – March Air Reserve Base Noise Impact Area
     - Figure 5.4-2 – Buildout Noise Contours – Alternative 1
     - Figure 5.4-3 -- Buildout Noise Contours – Alternative 2
     - Figure 5.4-4 -- Buildout Noise Contours – Alternative 3
   - Appendix D – Noise Analysis, Wieland Associates, Inc., June 2003.

[49] *Ibid.* Page 112.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
   - Section 9.10.140 Noise and Sound
4. Moreno Valley Municipal Code Chapter 11.80 Noise Regulations
5. March Air Reserve Base (MARB)/March Inland Port (MIP) Airport Land Use Compatibility Plan (ALUCP) on November 13, 2014, (http://www.rcaluc.org/Portals/13/17%20-%20Vol.%201%20March%20Air%20Reserve%20Base%20Final.pdf?ver=2016-08-15-145812-700)

XIV. POPULATION AND HOUSING – Would the project:

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of road or other infrastructure)?	☐	☐	☒	☐

Response:

Less than Significant Impact. The project site is located within a corridor along Perris Boulevard that is planned for a mix of residential, office, and commercial development. Therefore, development of the site is planned by the City. The extent to which new jobs created by a project are filled by existing residents is a factor that tends to reduce the growth-inducing effect of a project. Construction of the project would create short-term construction jobs; however, these short-term positions are anticipated to be filled by workers who, for the most part, already reside in or near the City. Therefore, construction of the project would not generate a permanent increase in population within the project area.

The Applicant indicates the project is expected to generate up to 39 employees, up to 27 for the restaurant and up to 12 for the convenience store/service station.[50] When compared to the existing planned use of the site for residential/office uses, the proposed changes in the land use designation to commercial would not substantially alter the housing and employment forecast in the City. Additionally, the project does not include a residential component, which would otherwise generate a permanent increase in population. Finally, streets, utilities, and municipal services such as police and fire services currently exist in the project area to serve the site. Therefore, the project would not induce a substantial unplanned population growth in the area. Impacts would be **less than significant**. Mitigation is not required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Response:

No Impact. The project site is vacant and does not contain any residences that would be removed due to development of the proposed project. Therefore, the project would not displace a substantial number of existing people or housing, requiring the construction of replacement of housing elsewhere. **No impact** would occur, and no mitigation is required.

Sources:

1. Moreno Valley General Plan, adopted July 11, 2006
   - Chapter 2 – Community Development Element – Section 2.1 – Land Use
     - Figure 2-1 – Neighboring Lands Uses
     - Figure 2-2 – Land Use Map
   - Chapter 8 – 2014 – 2021 Housing Element
2. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
   - Section 5.12 – Population and Housing
     - Attachments #1 - #10 – Housing Sites Inventory
     - Exhibits A1 – A11, C, D, and E – Maps of Housing Sites
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code

[50] The restaurant and convenience store/gas station are assumed to operate 24 hours per day, so the 39 employees would be divided in to three 8-hour shifts, with approximately 13 employees on site at a time (9 at the restaurant and 4 at the convenience store).

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES – Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	☐	☐	☒	☐

Response:
Less Than Significant Impact. The City of Moreno Valley contracts with the Riverside County Fire Department to provide fire protection, fire prevention, and emergency services within the City. The Moreno Valley Fire Department is administered and operated by the California Department of Forestry and Fire Protection/Riverside County Fire Department's regional, integrated, cooperative fire protection organization. The Sunnymead Fire Station 2, located at 24935 Hemlock Road, is the closest station to the site approximately 1 mile to the north. According to the City's General Plan Final Program EIR, Fire Station 2 houses one fire engine, one 100-foot ladder truck, and one rescue squad.[51]

As previously stated, the project site is not located within an identified Fire Hazard Severity Zone. Although the proposed project would introduce new structures to a vacant site, the project site is located in an area that is already served by existing fire protection services. Furthermore, the project would be required to adhere to City standards requiring the Applicant to provide evidence of an on-site fire hydrant system to the Fire Chief to ensure adequate fire flow for use by the Riverside County Fire Department in the event of an on-site fire.

The project site is located within a corridor along Perris Boulevard that is planned for a mix of residential, office, and commercial development. The proposed project would comply with 2019 California Building Code and Fire Code standards, including the provision for fire sprinklers, ignition-resistant design and materials, and emergency access. The site is located within the existing service area of Fire Station 2, and current levels of fire service provided to the project site would be maintained following project implementation. Therefore, the proposed project would result in a **less than significant impact** related to fire protection services and would not necessitate new fire protection facilities. No mitigation is required.

ii) Police protection?	☐	☐	☒	☐

Response:
Less Than Significant Impact. The City of Moreno Valley contracts with the Riverside County Sheriff's Department to provide police protection services within the City. The Moreno Valley Police Department headquarters is located in the Public Safety Building at 22850 Calle San Juan de Los Lagos in the City's Civic Center, but there are also satellite offices in strategic locations throughout the City that provide a place for officers to write reports, make phone calls, and tend to other responsibilities without leaving the field. The project would develop a drive-through restaurant and convenience store with service station that could generate 39 new employees in the City, up to 27 for the restaurant and up to 12 for the convenience store/service station. The new commercial uses would incrementally increase the need for police services in the area.

The Project would incorporate Crime Prevention Through Environmental Design (CPTED) features to keep service demand increases to a minimum. For example, the Project would incorporate public zones and private zones via physical and symbolic barriers to define acceptable uses of the commercial facilities and determine who has a right to occupy such zones. Additionally, the Project site would be equipped with formal surveillance through the use of closed-circuit television, electronic monitoring, and potentially security patrols, as well as informal surveillance such as architecture, landscaping, and lighting designed to minimize visual obstacles and eliminate places of concealment for potential assailants.

The City monitors staffing levels to ensure that adequate police protection and response times continue to be provided as individual development projects are proposed and on an annual basis as part of the

[51] City of Moreno Valley. *Moreno Valley General Plan Final Program EIR.* Chapter 5.13 – Public Services and Utilities. July 2006.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

City Council's budgeting process. The continual monitoring of police staffing levels by the City would ensure the proposed Project would not result in a significant reduction in police response times.

Funding for new police facilities commensurate with the increased demand for services in the City would be provided from capital improvement fees levied on new development. These development impact fees (DIFs) are one-time charges applied to new development and are imposed to raise revenue for the construction or expansion of capital facilities such as police stations located outside of the boundaries of a new development that benefit the area. DIFs enable the City to collect fair-share fees from new development projects to fund new infrastructure and services, including police services. DIFs are collected for specific infrastructure needs and are deposited into different accounts representing these requirements.

The Project would be designed and operated per applicable standards required by the City for new development with regard to public safety. The Project would be required to pay DIFs used to fund capital costs associated with constructing new public safety structures and purchasing equipment for new public safety structures. In addition, the City maintains mutual aid agreements with police agencies in the surrounding cities (e.g., Riverside and Perris) and with the Riverside County Sheriff's Department, which allow for the services of nearby police departments to assist the Moreno Valley Police Department during major emergencies. Payment of DIFs commensurate with the increased demand for services in the City would offset any increase in demand for police services.

The project site is located in an area that is already served by police protection services. Because the project site is located within the existing service area of the Moreno Valley Police Department, the proposed project constructed in accordance with applicable policies designed to minimize crime (e.g., CPTED) would not require new or physically altered police protection facilities, the construction of which could cause significant environmental effects. Therefore, impacts would be **less than significant** and mitigation is not required.

iii) Schools?	☐	☐	☐	☒

Response:
No Impact. The Project does not include housing; therefore, no increase in the number of school-age students is expected. California Government Code (Section 65995[b]) establishes the base amount of allowable developer fees imposed by school districts. These base amounts are commonly referred to as "Level 1 fees" and are subject to inflation adjustment every two years. School districts are placed into a specific "level" based on school impact fee amounts that are imposed on the development. With the adoption of Senate Bill 50 and Proposition 1A in 1998, schools meeting certain criteria can now adopt Level 2 and 3 developer fees. The amount of fees that can be charged over the Level 1 amount is determined by the district's total facilities needs and the availability of State matching funds. If there is State facility funding available, districts are able to charge fees equal to 50 percent of their total facility costs, termed "Level 2" fees. If, however, there are no State funds available, "Level 3" fees may be imposed for the full cost of their facility needs.[52]

Per California Government Code, "The payment or satisfaction of a fee, charge, or other requirement levied or imposed … are hereby deemed to be full and complete mitigation of the impacts … on the provision of adequate school facilities." The project Applicant would be required to pay these development fees in accordance with Government Code 65995 and Education Code 17620. Through payment of development fees, **no impacts** related to school services would occur. Mitigation is not required.

iv) Parks?	☐	☐	☒	☐

Response:
Less than Significant Impact. The project does not include a residential component and would not contribute to a direct increase in population. The 39 new employees anticipated by the Project are expected to reside generally in the vicinity of the site. As there is no direct increase in population anticipated from the proposed project, demand on existing park facilities is expected to be minimal.

[52] California State Legislature, Legislative Analyst's Office. *An Evaluation of the School Facility Fee Affordable Housing Assistance Programs*, January 2001. http://www.lao.ca.gov/2001/011701_school_facility_fee.html (accessed May 26, 2020).

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Therefore, no new park facilities would be required to serve the project. Impacts would be **less than significant**, and mitigation is not required.				
v) Other public facilities?	☐	☐	☒	☐

Response:
Less than Significant Impact. The project would not cause an increase in population resulting in a significant impact on other public facilities such as libraries and hospital services. The proposed project does not include a residential component, and the 39 new employees anticipated by the Project are expected to reside generally in the vicinity of the site. Therefore, the project would not contribute to a direct increase in population, and no significant increase in demand on library or medical facilities would occur. Therefore, no new public facilities would be required to serve the project. Impacts would be **less than significant**, and mitigation is not required.

Sources:

1. Moreno Valley General Plan, adopted July 11, 2006
   - Chapter 2 – Community Development Element – Section 2.5 – Schools
     - Figure 2-3 – School District Boundaries
   - Chapter 2 – Community Development Element – Section 2.6 – Library Services
   - Chapter 2 – Community Development Element – Section 2.7 – Special Districts
   - Chapter 2 – Community Development Element – Section 2.5 – Other City Facilities
   - Chapter 4 – Parks, Recreation and Open Space Element – Section 4.3 – Parks and Recreation
     - Figure 4-2 – Future Parklands Acquisition Areas
     - Figure 4-3 – Master Plan of Trails
   - Chapter 6 – Safety Element – Section 6.1 – Police Protection and Crime Preventions
   - Chapter 6 – Safety Element – Section 6.2 – Fire and Emergency Services
     - Figure 6-1 – Fire Stations
2. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
   - Section 5.13 – Public Services
     - Figure 5.13-1 – Location of Public Facilities
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code

XVI. RECREATION – Would the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐

Response:
Less than Significant Impact. The project does not include a residential component and would not contribute to a direct increase in population. The 39 new employees anticipated by the Project are expected to reside generally in the vicinity of the site. Therefore, the project would not substantially increase demand on existing neighborhood or regional parks or on other recreational facilities so as to increase or accelerate their physical deterioration. Impacts would be **less than significant**, and mitigation is not required.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment?	☐	☐	☒	☐

Response:
Less than Significant Impact. The proposed project does not include any recreational facilities or parkland. Furthermore, the project does not include any residential development and would not directly increase population in the project area. Therefore, the project would not require the construction or

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

expansion of recreational facilities. Impacts would be **less than significant,** and mitigation is not required.

Sources:

1. Moreno Valley General Plan, adopted July 11, 2006
   - Chapter 4 – Parks, Recreation and Open Space Element – Section 4.3 – Parks and Recreation
     - Figure 4-1 Open Space
     - Figure 4-2 – Future Parklands Acquisition Areas
     - Figure 4-3 – Master Plan of Trails
2. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
   - Section 5.13 – Public Services
     - Figure 5.13-1 – Location of Public Facilities
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code

XVII. TRANSPORTATION – Would the project:				
a) Conflict with program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☒	☐	☐

Response:

Less than Significant with Mitigation Incorporated. The following is based on the Transportation Impact Analysis (TIA) prepared for the proposed project (Appendix E).[53]

Transit, Pedestrian, and Bicycle Facilities. The project includes a drive-through restaurant and convenience store with service station. Due to the automobile-centered nature of the proposed project, it is not expected to generate significant transit, pedestrian, and bicycle trips internal or external to the site. The project would be required to include parking facilities for bicycles and accommodate bicycle routes along its roadway frontage. Additionally, Riverside Transit Agency maintains a bus stop for bus route 19 adjacent to the site along Perris Boulevard. The project includes relocation of the bus stop approximately 250 feet to the north of its existing location, farther away from the intersection of Perris Boulevard and Dracaea Avenue. The relocated bus stop would include a dedicated turnout for busses to pull off the roadway for safer service to the public (refer to Figure 3). Development of the site therefore would facilitate additional patronage of the bus stop by introducing employees and customers to the site and improving the safe operation of the bus stop adjacent to the site. The project would not preclude or otherwise adversely affect existing or proposed transit, pedestrian, or bicycle projects or policies identified by the City. Therefore, impacts from conflict with a program, plan, ordinance, or policy addressing transit, pedestrian, or bicycle facilities, would be **less than significant**.

Roadway Facilities. The California Court of Appeals, in its *Citizens for Positive Growth & Preservation v. City of Sacramento* decision, determined that automobile delay, as described solely by level of service (LOS), shall not be considered a significant impact on the environment. Therefore, the following discussion of potential LOS impacts is provided to demonstrate project compliance with the City General Plan as it pertains to the circulation system.

Access to the service station on the project site would be provided via three driveways; one from Perris Boulevard in the center of the site, one from Dracaea Avenue at the southern portion of the site, and one from Atwood Avenue approximately 320 feet north of the site. The internal drive aisle is designed to allow for semi-trucks delivering fuel to the site to enter from Perris Boulevard and exit the site to Dracaea Avenue. As detailed in Table 17.A, the project is expected to generate 3,471 daily trips with 324 trips occurring during the a.m. peak hour and 204 trips occurring during the p.m. peak hour (see Appendix E).

[53] LSA Associates, Inc. *Transportation Impact Analysis for the Perris/Dracaea Commercial Project*. September 2020. (Appendix E).

Table 17.A: Project Trip Generation

Land Use	Units	A.M. Peak Hour			P.M. Peak Hour			Daily Trips
		In	Out	Total	In	Out	Total	
Service Station with Convenience Store								
Trips/Unit	12 Vehicle Fueling Positions	6.36	6.11	12.47	7.13	6.86	13.99	205.36
Trip Generation		76	73	149	86	82	168	2,464
Pass-by Trips		(47)	(45)	(92)	(48)	(46)	(94)	(1,454)
Total Net Trips		29	28	57	38	36	74	1,010
Drive-Through Restaurant								
Trips/Unit	3,000 square feet	45.38	43.61	88.99	21.69	21.69	43.38	820.38
Trip Generation		136	131	267	65	65	130	2,461
Total Trip Generation		212	204	416	151	147	298	4,925
Pass-By Trips[1]		(47)	(45)	(92)	(48)	(46)	(94)	(1,454)
Total Net Trip Generation		**165**	**159**	**324**	**103**	**101**	**204**	**3,471**

Source: Table 5-A – Transportation Impact Analysis, LSA, September 2020 (Appendix E).
[1] "Pass-By" trips are intermediate stops at the project site en route to a destination without diverting from the main route and therefore are not actually "new" trips added to the surrounding circulation system.

The study area intersections and roadways were identified via the Scoping Agreement process. The study intersections are listed as follows:[54]

- Perris Boulevard/Eucalyptus Avenue;
- Perris Boulevard/Atwood Avenue;
- Perris Boulevard/Auto Center Driveway – Project Driveway 1;
- Perris Boulevard/Dracaea Avenue;
- Perris Boulevard/Cottonwood Avenue;
- Project Driveway 2/Dracaea Avenue; and
- Sunset Lane/Atwood Avenue.

The roadway segments are listed as follows:

- Perris Boulevard, between Eucalyptus Avenue and Atwood Avenue;
- Perris Boulevard, between Atwood Avenue and Dracaea Avenue;
- Perris Boulevard, between Dracaea Avenue and Cottonwood Avenue; and
- Dracaea Avenue, between Perris Boulevard and Birchwood Drive.

Study intersections analyzed are under the jurisdiction of the City of Moreno Valley. The City uses both LOS C and LOS D as its minimum level of service criteria for intersections and roadway segments. As stated in the City's General Plan and TIA Guidelines, LOS D is applicable to intersections and roadway segments adjacent to employment-generated land uses, while LOS C is applicable to all other areas. The City's *Transportation Impact Analysis Guidelines* identify operational deficiencies and require improvements under the following conditions:

a) Projects that result in intersections and roadway segments adjacent to employment-generated land uses to operate at LOS E or F, and in all other areas to operate at LOS D, E, or F;

or

b) Projects that add 5 or more seconds of delay to an intersection that is already projected to operate without project traffic at unsatisfactory LOS;

and

c) The intersection meets the peak hour traffic signal warrant after the addition of project traffic.

If the conditions above are satisfied, improvements should be identified that achieve LOS D or better for case a) above or to pre-project LOS and delay for case b) and c) above.

Furthermore, the City's *Transportation Impact Analysis Guidelines* prescribe a roadway segment threshold in term of volume-to-capacity (V/C) whereby any roadway segment that operates at unacceptable LOS in the no project scenario where the project adds traffic in excess of 5 percent of the

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

roadway capacity (i.e., a V/C ratio increase of 0.05) must identify improvements to add capacity to the segment.

The project proposes several Project Design Features (PDFs) that include select transportation facility improvements along the project frontage as detailed below:[55]

- Remove the existing two-way-left-turn-lane on Perris Boulevard, from south of Pedro's Taco Shop Driveway to Dracaea Avenue;
- Replace the two-way-left-turn-lane with the raised median along the entire project frontage on Perris Boulevard extending north of the intersection of Perris Boulevard/Atwood Avenue up to south of the Pedro's Taco Shop driveway;
- Create left-turn pockets in the raised median for the northbound and southbound movements at the intersection of Perris Boulevard/Atwood Avenue, with storage lengths of 150 feet and 125 feet, respectively;
- Extend the southbound left-turn pocket at the intersection of Perris Boulevard/Dracaea Avenue by 5 feet; and
- Add a bus bay on the east side of Perris Boulevard, north of the intersection of Perris Boulevard/Auto Center Driveway-Project Driveway 1.

Due to the proposed raised median, Auto Center Driveway will operate as a right-in-right-out driveway, and eastbound and westbound left-turn and through movements will be prohibited at the intersection of Perris Boulevard/Atwood Avenue under with project conditions.[56]

Existing Conditions Summary. As shown in Table 4-D in Appendix E, the intersection of Perris Boulevard/Atwood Avenue operates at an unsatisfactory LOS under existing conditions.[57] All other study intersections and roadway segments currently operate at a satisfactory LOS under existing without project conditions.

Project Completion (2022) Conditions Summary. Traffic volumes for project completion without project conditions were developed by applying a 2 percent annual growth rate to the existing traffic volumes for all study intersections and adding trips from cumulative projects[58] in the area. As stated above, the project will include several PDFs, including a raised median along Perris Boulevard extending north of the intersection of Perris Boulevard/Atwood Avenue. The median will prevent eastbound and westbound left-turn and through movements at this intersection, and Auto Center Driveway will operate as a right-in-right-out driveway under with project conditions.

As shown in Table 6-C and 6-D in Appendix E, the intersection of Perris Boulevard/Atwood Avenue and three roadway segments on Perris Boulevard would operate at unsatisfactory LOS under year 2022 without project conditions. However, the PDFs specified above would improve the LOS at the intersection of Perris Boulevard/Atwood Avenue to C or better in accordance with the City's General Plan standard.[59] No further intersection improvement are required to ensure this intersection operates at satisfactory LOS; however, additional improvements are required to ensure adequate turn-pocket storage lengths (i.e., queuing), as specified below.

Although the three roadway segments along Perris Boulevard would continue to operate at unsatisfactory LOS under project completion (2022) with project conditions, implementation of the project and associated PDFs would increase the V/C ratio by 0.03 or less at these roadway segments, so further improvements are not required.[60] All other study intersections and roadway segments are forecast to operate at a satisfactory LOS under project completion (2022) without and with project conditions.

General Plan Build-Out (2040) Conditions Summary. As shown in Table 7-B and 7-C in Appendix E, the intersections of Perris Boulevard/Atwood Avenue (both a.m. and p.m. peak hours) and Perris Boulevard/Dracaea Avenue (p.m. peak hour only) and three roadway segments on Perris Boulevard

54 *Ibid.*
55 *Ibid.* Page 15 and Figures 4-3 and 4-4.
56 *Ibid.*
57 *Ibid.* Table 4-D - Existing Intersection Levels of Service.
58 According to Appendix E, the cumulative projects are expected to generate 1,184 a.m. peak hour trips, 1,604 p.m. peak hour trips, and 20,032 daily trips.
59 *Ibid.* Table 6-C - Project Completion (2022) Intersection Levels of Service.
60 *Ibid*. Page 37 and Table 6-D - Project Completion (2022) Roadway Segment Levels of Service.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

would operate at unsatisfactory LOS under General Plan build-out conditions. Even with the proposed PDFs specified above, the Perris Boulevard/Dracaea Avenue (p.m. peak hour only) intersection is still forecast to operate at unsatisfactory LOS,[61] and improvements must be implemented at this intersection under General Plan build-out with project conditions (refer to Table 17.B below) to ensure satisfactory LOS. Additional improvements at this intersection are required to ensure adequate turn-pocket storage lengths (i.e., queuing), as specified below.

Although the three roadway segments along Perris Boulevard would continue to operate at unsatisfactory LOS under General Plan build-out with project conditions, implementation of the project and associated PDFs would increase the V/C ratio by 0.03 or less at these roadway segments, so further improvements are not required.[62]

Site Circulation Analysis. An analysis of fuel tanker-truck circulation on-site indicates fuel tanker-trucks would not interfere with the drive-through operations for any of the facilities or the overall site circulation since discharging fuel for the gas station would occur during the off-peak hours for the gas station. Truck turning templates were obtained from the Caltrans Design Manual Turn Templates. Large semitrailer templates were used to evaluate availability of adequate truck turning radii as a conservative estimate. The trucks would have adequate turning radii to ingress using the project driveway on Perris Boulevard and egress using the project driveway on Atwood Avenue. Additionally, adequate space is available on-site for fuel tanker-trucks to park during fuel discharge operations.

Queuing Analysis. An analysis of turn-pocket storage lengths is summarized in Tables 9-A, 9-B, and 9-C in Appendix E. The analysis summarizes the 95th percentile back-of-queue lengths at the study intersections under existing, project completion (2022), and General Plan build-out (2040) conditions. Pursuant to discussions with City staff, queues have only been reported for those turn movements where the project adds to the traffic volumes. Queues for select movements affected by project traffic at the Perris Boulevard/Eucalyptus Avenue intersection and Perris Boulevard/Cottonwood Avenue intersection under project completion (2022) conditions and at the Perris Boulevard/Dracaea Avenue intersection under General Plan build-out (2040) conditions are projected to exceed the existing available turn-pocket storage lengths. Improvements to these intersections as specified in Table 17.B are required to ensure adequate turn-pocket storage lengths.

Improvements for Intersections and Roadway Segments and Funding Mechanism. Funding mechanisms for the proposed improvements at study intersections and roadway segments are listed in Table 17.B. Where there is a funding mechanism (Transportation Uniform Mitigation Fee (TUMF) program) for the recommended improvements, payment into the TUMF program is considered sufficient project obligation to "mitigate the cumulative regional transportation impacts of new development on regional arterial highways." With implementation of the PDFs described above, the addition of project traffic (project completion (2022) with project conditions) does not create an LOS deficiency, and additional improvements are not required. At locations where the project adds to or creates a forecast LOS deficiency even with implementation of PDFs and there is no funding mechanism in place (Perris Boulevard/Dracaea Avenue under General Plan build-out conditions) or where the addition of project traffic is expected to exceed the existing available turn-pocket storage lengths (Perris Boulevard/Eucalyptus Avenue and Perris Boulevard/Cottonwood Avenue under project completion (2022) conditions and at Perris Boulevard/Eucalyptus Avenue and Perris Boulevard/Dracaea Avenue under General Plan build-out (2040) conditions), the project is responsible for its fair-share payment.

Table 17.B: Recommended Improvements for Intersections and Funding Mechanism

Inter-section	Project Completion (2022) with Project Improvements	General Plan Build-Out (2040) with Project Improve-ments	Fund-ing Mech-anism	Improve-ments Covered by TUMF Program	Improvements Covered by Fair Share Funding Mechanism	Fair Share %

[61] *Ibid.* Page 49 and Table 7-B - General Plan Buildout (2040) Levels of Service.
[62] *Ibid.* Page 49 and Table 7-C - General Plan Buildout (2040) Roadway Segment Levels of Service.

ISSUES & SUPPORTING INFORMATION SOURCES:				Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Perris Boulevard / Eucalyp-tus Avenue	Extend storage length for NBL turn lane from 95 feet to 280 feet, Extend storage length for WBL turn lane from 100 feet to 135 feet.	Project Completion Improvements + Extend EBR turn lane from 50 feet to 155 feet.	Fair Share	—	Extend storage length for NBL turn lane from 95 feet to 280 feet, Extend EBR turn lane from 50 feet to 155 feet, Extend storage length for WBL turn lane from 100 feet to 135 feet.		5.89%
4. Perris Boulevard / Dracaea Avenue	—	Add a EBL turn lane with storage length of 100 feet, Add a WBL turn lane with storage length of 135 feet.	Fair Share	—	Add a EBL turn lane with storage length of 100 feet, Add a WBL turn lane with storage length of 135 feet.		14.86 %
5. Perris Boulevard / Cotton-wood Avenue	Extend storage length for SBL turn lane from 95 feet to 190 feet, Extend storage length for EBL turn lane from 115 feet to 185 feet.	Project Completion Improvements	Fair Share	—	Extend storage length for SBL turn lane from 95 feet to 190 feet, Extend storage length for EBL turn lane from 115 feet to 185 feet.		8.41%

Source: Table 11-B. Transportation Impact Analysis, LSA, September 2020 (Appendix E).
EB = Eastbound, WB = Westbound, L = Left, R = Right, TUMF = Transportation Uniform Mitigation Fee program
Project Fair Share Percentage is the highest fair share value of the AM and PM peak hour when both peak hours are impacted by the project, or only in the peak hour where the project has an impact, and is calculated based on project traffic as a percentage of total growth from existing to General Plan build-out conditions.
[1] Improvements recommended based on the City's General Plan roadway classification.

Although the City's General Plan and *Transportation Impact Analysis Guidelines* identify intersection thresholds of significance in accordance with LOS, *CEQA Guidelines* Section 15064.3, subdivision (b) establishes "vehicle miles traveled" criteria in lieu of LOS for analyzing transportation impacts under CEQA. Nevertheless, **Mitigation Measure TRA-1** is prescribed to ensure implementation of the improvements to intersections and payment of fair share fees as specified in Table 17.B to avoid conflict with the City's General Plan and *Transportation Impact Analysis Guidelines* LOS criteria for intersections and to ensure adequate turn-pocket storage lengths.

Mitigation Measure TRA-1: Prior to issuance of an occupancy permit, the applicant shall provide evidence to the City that payment of fair share is made, as identified in the project-specific Transportation Impact Analysis (Appendix E) and Table 17.B of the Initial Study, for improvements at Perris Boulevard/Eucalyptus Avenue and Perris Boulevard/Cottonwood Avenue under project completion (2022) conditions and at Perris Boulevard/Eucalyptus Avenue and Perris Boulevard/Dracaea Avenue under General Plan build-out (2040) conditions. This measure shall be implemented to the satisfaction of the City of Moreno Valley Director of Engineering, or designee.

Through payment of fair share for improvements at Perris Boulevard/Eucalyptus Avenue and Perris Boulevard/Cottonwood Avenue under project completion (2022) conditions and at Perris Boulevard/Eucalyptus Avenue and Perris Boulevard/Dracaea Avenue under General Plan build-out (2040) conditions, as prescribed in **Mitigation Measure TRA-1**, the project would maintain the LOS standards outlined in the City's General Plan and *Transportation Impact Analysis Guidelines* and ensure adequate turn-pocket storage lengths. Therefore, the project would not conflict with a program, plan, ordinance or policy addressing the circulation system. Impacts would be **less than significant with mitigation incorporated**.

b) Conflict or be inconsistent with *CEQA Guidelines* Section 15064.3, subdivision (b)?	☐	☐	☒	☐

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Response:
Less than Significant Impact. CEQA Guidelines Section 15064.3, subdivision (b) establishes "vehicle miles traveled" criteria in lieu of LOS for analyzing transportation impacts and was signed into law as Senate Bill (SB) 743 in 2013. With the adopted guidelines, transportation impacts are to be evaluated based on a project's effect on vehicle miles traveled (VMT). The City is a member of Western Riverside Council of Governments (WRCOG). Pursuant to the City's Vehicle Miles Traveled (VMT) analysis guidelines, retail land uses less than 50,000 square feet, which tend to serve the local community and therefore have the potential to reduce VMT, are screened out from further VMT assessment.

It is anticipated that the proposed commercial retail project, as a small-scale service station with convenience store and drive-through restaurant, would serve primarily the residential uses in the immediate vicinity of the site and provide them with the convenience of availing essential amenities close to home. Therefore, trip lengths would be shortened, and vehicle travel would be reduced. This project has a much lower square footage (7,088 square feet for all uses combined) compared to the 50,000 square-foot threshold. Therefore, the project is considered a local serving retail land use that would have a **less than significant** impact on VMT. Mitigation is not required.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐

Response:
Less Than Significant Impact. The project is on a small infill site (under 5 acres) located on one corner of a major intersection with no long roadway segments within the property. The design of roadways must provide adequate sight distance and traffic control measures. Roadway improvements in and around the project site would be designed and constructed to satisfy all City requirements for street widths, corner radii, intersection control as well as incorporate design standards tailored specifically to site access requirements. In addition, entrances and exits to and from parking and loading facilities would be marked with appropriate directional signage.

The project includes relocation of the bus stop approximately 250 feet to the north of its existing location, farther away from the intersection of Perris Boulevard and Dracaea Avenue. The relocated bus stop would include a dedicated turnout for busses to pull off the roadway for safer service to the public (refer to Figure 3). Development of the site therefore would facilitate additional patronage of the bus stop by introducing employees and customers to the site and improving the safe operation of the bus stop adjacent to the site.

As stated above, tanker-truck fuel delivery to the service station would occur during the off-peak hours, so there would be no circulation issues for fuel tanker-trucks. The trucks would have adequate turning radii to ingress using the project driveway on Perris Boulevard and egress using the project driveway on Dracaea Avenue. Additionally, adequate space is available on-site for fuel tanker-trucks to park during fuel discharge operations.

The City, at final plan check, would ensure that all improvements associated with the project are consistent with City standards and requirements. Adherence to applicable City requirements would ensure the proposed development would not include any sharp curves or dangerous intersections. Therefore, no substantial increase in hazards due to a design feature would occur. Impacts would be **less than significant**. Mitigation is not required.

d) Result in inadequate emergency access?	☐	☐	☒	☐

Response:
Less than Significant Impact. Construction activities that may temporarily restrict vehicular traffic would be required to implement appropriate measures to facilitate the passage of persons and vehicles through/ around any required road closures. Typical City requirements include prior notification of any lane or road closures with sufficient signage before and during any closures, flag crews with radio communication when necessary to coordinate traffic flow, etc. The Applicant would be required to comply with these requirements, which would maintain emergency access and allow for evacuation if needed during construction activities. Compliance with these requirements would ensure that short-term impacts related to this issue are **less than significant.** Mitigation is not required.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

In accordance with the California Fire Code, the project applicant is required to design, construct, and maintain structures, roadways, and facilities to maintain appropriate emergency/evacuation access to and from the Project site. The proposed project is in an urban setting, and direct access to the site would be available via Perris Boulevard, Dracaea Avenue, and Atwood Avenue, all of which are designed and would be constructed to accommodate emergency vehicles and services. These improvements would be subject to compliance with the Fire Code and would be reviewed by the Moreno Valley Fire Department and Police Department through the City's general development review process. Proper site design and compliance with standard and emergency City access requirements would allow for evacuation if necessary during ongoing project operations. This would ensure that long-term impacts related to this issue are **less than significant.** Mitigation is not required.

Sources:

1. Moreno Valley General Plan, adopted July 11, 2006
   - Chapter 5 Circulation Element
     - Figure 9-1 – Circulation Plan
     - Figure 9-2 – LOS Standards
     - Figure 9-3 – Roadway Cross-Sections
     - Figure 9-4 – Bikeway Plan
2. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
   - Section 5.2 – Traffic/Circulation
     - Figure 5.2-1 – Circulation Plan
     - Figure 5.2-2 – General Plan Roadway Cross-Sections
     - Figure 5.2-3 – Year 2000 Number of Through Lanes
     - Figure 5.2-4 – Year 2000 Daily Volume/Capacity (V/C) Ratios
     - Figure 5.2-5 – Year 2000 Average Daily Traffic Volumes
     - Figure 5.2-6 – Proposed Circulation Plan
     - Figure 5.2-7 – LOS Standards
   - Appendix B – Traffic Analysis, City of Moreno Valley General Plan Traffic Study, Urban Crossroads, June 2004.
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
4. Moreno Valley Municipal Code Chapter 3.18 Special Gas Tax Street Improvement Fund
5. Moreno Valley Master Bike Plan, adopted January 2015
6. Riverside County Transportation Commission, Congestion Management Program, December 14, 2011

XVIII. TRIBAL CULTURAL RESOURCES – Would the project:

a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i)	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☒	☐	☐

Response:

Less Than Significant with Mitigation Incorporated. The term "California Native American tribe" is defined as "a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the Native American Heritage Commission (NAHC)."

Chapter 905, Statutes of 2004 (i.e., Senate Bill 18) of the California Government Code requires a City to consult with California Native American tribes for the purpose of preserving specified places, features, and objects described in Sections 5097.9 and 5097.995 of the Public Resources Code that are located within the city or county's jurisdiction prior to the adoption or amendment of a General Plan. Senate Bill

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

(SB) 18 requires the Lead Agency (i.e., City of Moreno Valley) to refer to the California Native American tribes specified by the NAHC and to provide them with opportunities for consultation.

Chapter 532, Statutes of 2014 (i.e., Assembly Bill 52), requires Lead Agencies evaluate a project's potential to impact "tribal cultural resources." Such resources include "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources." Assembly Bill (AB) 52 also gives Lead Agencies the discretion to determine, supported by substantial evidence, whether a resource qualifies as a "tribal cultural resource."

CEQA defines a "historical resource" as a resource that meets one or more of the following criteria: (1) is listed in, or determined eligible for listing in, the California Register of Historical Resources (California Register); (2) is listed in a local register of historical resources as defined in PRC §5020.1(k); (3) is identified as significant in a historical resource survey meeting the requirements of PRC §5024.1(g); or (4) is determined to be a historical resource by a project's Lead Agency (PRC §21084.1 and *State CEQA Guidelines* §15064.5[a]).

"Local register of historical resources" means a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution.

Per SB 18 (specifically California Government Code 65352.4), "consultation" means the meaningful and timely process of seeking, discussing, and considering carefully the views of others, in a manner that is cognizant of all parties' cultural values and, where feasible, seeking agreement. Consultation between government agencies and Native American tribes shall be conducted in a way that is mutually respectful of each party's sovereignty. Consultation shall also recognize the tribes' potential needs for confidentiality with respect to places that have traditional tribal cultural significance. The City engaged the NAHC for a contact list of tribes pursuant to California Government Code 65352.3 and contacted nine entities representing eight tribes in accordance with SB 18.

Per AB 52 (specifically California Public Resources Code 21080.3.1), Native American consultation is required upon request by interested California Native American tribes that have previously requested that the City provide them with notice of such projects. The City mailed notices of the proposed project to eight entities representing seven Native American tribes in accordance with AB 52.

To date, three tribes, the Pechanga Band of Luiseño Indians (Pechanga), the Soboba Band of Luiseño Indians (Soboba), and the Rincon Band of Luiseño Indians (Rincon) have requested formal consultation with the City, while the Agua Caliente Band of Cahuilla Indians (Aqua Caliente) requested additional information on the project prior to determining if consultation is necessary. Two additional tribes, the Morongo Band of Mission Indians (Morongo) and the San Manuel Band of Mission Indians (San Manuel) informed the City they do not wish to consult on this project. Five entities representing three tribes, the Cahuilla Band of Indians, the Los Coyotes Band of Cahuilla Mission Indians, the Desert Cahuilla Indians/Torres Martinez, the Santa Rosa Band of Mission Indians, and the Serrano Nation of Mission Indians did not respond to the City.

All of the tribal correspondences pursuant to SB 18 and AB 52 occurred in October and November of 2019, and consultation is ongoing between the City and Pechanga, Soboba, and Rincon, while the City continues to engage the Aqua Caliente as appropriate.

Pursuant to SB 18 and AB 52, the City has prescribed the following Mitigation Measures for the protection of Tribal Cultural Resources:

Mitigation Measure TCR-1: Prior to the issuance of a grading permit, the Developer shall retain a professional archaeologist to conduct monitoring of all mass grading and trenching activities. The Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Consulting Tribe(s), the contractor, and the City, shall develop a Cultural Resources Management Plan (CRMP) in consultation pursuant to the definition in AB52 to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. A consulting tribe is defined as a tribe that initiated the AB 52 tribal

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

consultation process for the Project, has not opted out of the AB52 consultation process, and has completed AB 52 consultation with the City as provided for in Cal Pub Res Code Section 21080.3.2(b)(1) of AB52. Details in the Plan shall include:

a. Project grading and development scheduling;

b. The Project archeologist and the Consulting Tribes(s) as defined in **TCR-1** shall attend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Consulting Tribe(s) shall make themselves available to provide the training on an as-needed basis;

c. The protocols and stipulations that the contractor, City, Consulting Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.

Mitigation Measure TCR-2: Prior to the issuance of a grading permit, the Developer shall secure agreements with the Soboba Band of Luiseño Indians (Soboba) and Pechanga Band of Luiseño Indians (Pechanga) for tribal monitoring. The Developer is also required to provide a minimum of 30 days advance notice to the tribes of all mass grading and trenching activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2.

Mitigation Measure TCR-3: In the event that Native American cultural resources are discovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries:

a) One or more of the following treatments, in order of preference, shall be employed with the tribes. Evidence of such shall be provided to the City of Moreno Valley Planning Department:

i. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place they were found with no development affecting the integrity of the resources.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

ii. Onsite reburial of the discovered items as detailed in the treatment plan required pursuant to Mitigation Measure TCR-1. This shall include measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed. No recordation of sacred items is permitted without the written consent of all Consulting Native American Tribal Governments as defined in TCR-1.

Mitigation Measure TCR-4: 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 and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find."

Mitigation Measure TCR-5: If potential historic or cultural resources are uncovered during excavation or construction activities at the project site, work in the affected area must cease immediately and a qualified person meeting the Secretary of the Interior's standards (36 CFR 61), Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the City to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, or prehistoric resource. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all Consulting Native American Tribes as defined in TCR-1 before any further work commences in the affected area.

Mitigation Measure TCR-6: If human remains are discovered, no further disturbance shall occur in the affected area 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 notified within 24 hours of the published finding to be given a reasonable opportunity 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).

Adherence to **Mitigation Measures TCR-1** through **TCR-6** would ensure impacts to tribal cultural resources are reduced to **less than significant with mitigation incorporated**.

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Response:

Less Than Significant with Mitigation Incorporated. CEQA defines a "historical resource" as a resource that meets one or more of the following criteria: (1) is listed in, or determined eligible for listing in, the

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

California Register of Historical Resources (California Register); (2) is listed in a local register of historical resources as defined in PRC §5020.1(k); (3) is identified as significant in a historical resource survey meeting the requirements of PRC §5024.1(g); or (4) is determined to be a historical resource by a project's Lead Agency (PRC §21084.1 and *State CEQA Guidelines* §15064.5[a]).

A resource may be listed as a historical resource in the California Register if it meets any of the following National Register of Historic Places criteria as defined in PRC §5024.1(C):

A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

B. Is associated with the lives of persons important in our past.

C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

D. Has yielded, or may be likely to yield, information important in prehistory or history.

A "substantial adverse change" to a historical resource, according to PRC §5020.1(q), "means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired."

CEQA Guidelines do not preclude identification of historical resources as defined in Public Resources Code Sections 5020.1(j) or 5024.1. Pursuant to *State CEQA Guidelines* Section 15064.5[c][4], if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study, but they need not be considered further in the CEQA process.

The City has engaged the NAHC for a contact list of tribes pursuant to California Government Code 65352.3 (SB 18) and California Public Resources Code 21080.3.1 (AB 52). To date, three tribes, the Pechanga Band of Luiseño Indians (Pechanga), the Soboba Band of Luiseño Indians (Soboba), and the Rincon Band of Luiseño Indians (Rincon) have requested formal consultation with the City, while the Agua Caliente Band of Cahuilla Indians (Aqua Caliente) requested additional information on the project prior to determining if consultation is necessary. Two additional tribes, the Morongo Band of Mission Indians (Morongo) and the San Manuel Band of Mission Indians (San Manuel) informed the City they do not wish to consult on this project. Five entities representing three tribes, the Cahuilla Band of Indians, the Los Coyotes Band of Cahuilla Mission Indians, the Desert Cahuilla Indians/Torres Martinez, the Santa Rosa Band of Mission Indians, and the Serrano Nation of Mission Indians did not respond to the City.

All of the tribal correspondences pursuant to SB 18 and AB 52 occurred in October and November of 2019, and consultation is ongoing between the City and Pechanga, Soboba, and Rincon, while the City continues to engage the Aqua Caliente as appropriate. With implementation of **Mitigation Measures TCR-1** through **TCR-6,** the project archaeologist, Applicant, the City Community Development Director or designee, and interested Tribal representatives shall confer regarding the appropriate disposition of any unanticipated Tribal Cultural Resources encountered during ground disturbing activities. Therefore, the proposed project would have a **less than significant impact with mitigation incorporated** on Tribal Cultural Resources.

Sources:

1. Moreno Valley General Plan, adopted July 11, 2006
   - Chapter 7 – Conservation Element – Section 7.2 – Cultural and Historical Resources
2. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
   - Section 5.10 – Cultural Resources
     - Figure 5.10-1 – Locations of Listed Historic Resource Inventory Structures
     - Figure 5.10-2 – Location of Prehistoric Sites
     - Figure 5.10-3 – Paleontological Resource Sensitive Areas
   - Appendix F – Cultural Resources Analysis, Study of Historical and Archaeological Resources for the Revised General Plan, City of Moreno Valley, Archaeological Associates, August 2003.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
4. Moreno Valley Municipal Code Title 7 – Cultural Preservation
5. Cultural Resources Inventory for the City of Moreno Valley, Riverside County, California, prepared by Daniel F. McCarthy, Archaeological Research Unit, University of California, Riverside, October 1987 (*This document cannot be provided to the public due to the inclusion of confidential information pursuant to Government Code Section 6254.10.*)

XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐

Response:
Less Than Significant Impact. The proposed commercial retail facilities will connect to existing utilities, including water, drainage, electric power, natural gas, and telecommunications located beneath Perris Boulevard and Dracaea Avenue. The approval of drainage improvements occurs through the building plan check process. As part of this process, all project-related drainage features would be required to meet City and RWQCB standards. On-site project-related drainage features would be designed, installed, and maintained per City standards and the requirements identified in the Final WQMP (per **Mitigation Measure HYD-3**).

General Plan Policy 2.12.1 requires that adequate septic or sewer service capacity will be available in a timely manner prior to approval of any development application. Policy 2.13.3 requires each project to provide the infrastructure needed to support the project at the time it is needed.[63] All proposed improvements and interconnection to drainage, electric power, natural gas, telecommunications, water, and wastewater facilities would be installed simultaneously with finished grading activities and required roadway frontage improvements for the project site. As a result, interconnection to the existing utilities surrounding the site would occur within disturbed footprints and therefore not result in substantial disturbance of native habitat or soils, or existing roadways or utilities. There would be no significant environmental effects specifically related to the installation of utility interconnections that are not encompassed within the project's construction and operational footprint, and therefore already identified, disclosed, and subject to all applicable mitigation measures, as well as local, State, and federal regulations, as part of this Initial Study. Therefore, impacts related to relocation of utilities would be **less than significant**. No additional mitigation is required.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐

Response:
Less Than Significant Impact. The City of Moreno Valley is served by two water purveyors: Eastern Municipal Water District (EMWD) and the Box Springs Mutual Water Company.[64] However, the EMWD is the primary water purveyor from the City and would provide water to the project site. The EMWD considers current groundwater production to be utilized completely by existing customers, as the majority of EMWD's current and projected water supplies are imported through the Metropolitan Water District of Southern California (MWD).[65] New developments, including the proposed project, will be supplied with imported water from one of the following sources: (1) treated imported water from MWD; (2) untreated imported water from MWD, which is subsequently treated by EMWD; or (3) untreated imported water treated by EMWD and recharged into groundwater basins for later withdrawal.

The proposed project is expected to employ approximately 39 staff and generate approximately 4,925 average daily trips (i.e., ADTs without internal capture and pass-by trips) (refer to Table XVII.A). Dividing

63 City of Moreno Valley. *Moreno Valley General Plan Final Program EIR.* Section 5.13 Public Services and Utilities. July 2006.
64 *Ibid*.
65 Eastern Municipal Water District. *2015 Urban Water Management Plan.* Page 7-1. June 2016.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

the daily trips in half would account for one trip to the project site and the second trip from the site, so 2,463 vehicles would visit the site per day. Assuming two persons per vehicle, the proposed commercial retail uses could experience 4,925 patrons per day. EMWD's 2015 average daily per capita water demand for commercial uses is 17.6 gallons per day.[66] Therefore, the 39 employees and 4,925 patrons per day would demand approximately 87,366 gallons (0.268 acre-foot) of water per day.[67] This is a worst-case scenario since approximately half of the trips (2,464) estimated for the project would be related to the service station with convenience store where many of these patrons are expected to purchase fuel without utilizing other services or amenities that would require water consumption.

MWD's 2015 UWMP provides information about MWD's regional supply reliability and projected demands based on official regional demographic and economic projects from SCAG's 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and the San Diego Association of Governments (SANDAG) Series 13: 2050 Regional Growth Forecast from October 2013.[68] Based on information provided by EMWD and other member agencies, MWD concludes that it is able to meet projected demands for all member agencies through 2040, even during dry periods.[69] Under extreme conditions, water supplies could be allocated using MWD's WSAP to preserve supplies in storage by requiring a reduction in demand by member agencies, including the EMWD, pursuant to SB 1168 and 1319, and AB 1739. Commercial customers face event-driven penalties and could face fines if found violating water use restrictions. EMWD's 2015 UWMP also discloses that in the event of a water supply shortage or water emergency, the City has in place water shortage contingency plans, which ensure provision of priority water services to all its existing and anticipated customers. Since the EMWD and MWD have the ability to meet all of their existing entitlements and projected supplemental demand through 2040, even under a repeat of historic multiple-year drought scenarios, sufficient water supplies are available to serve the proposed project. Impacts would be **less than significant,** and mitigation is not required.

c) 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?	☐	☐	☒	☐

Response:

Less Than Significant Impact. Wastewater services in the City of Moreno Valley are provided by the EMWD, serving most of the City and surrounding areas, and the Edgemont Community Services District.[70] The EMWD provides wastewater services to approximately 239,000 customers within its service area and currently treats approximately 43 million gallons per day of wastewater at its five active regional water reclamation facilities through 1,813 miles of sewer pipelines.[71] These reclamation plants include the San Jacinto Regional Water Reclamation Facility, Moreno Valley Regional Water Reclamation Facility, Perris Valley Regional Water Reclamation Facility, Sun City Regional Water Reclamation Facility, and Temecula Valley Regional Water Reclamation Facility. Generated wastewater from the project site would be treated at the Moreno Valley Regional Water Reclamation Facility (MVRWRF).

The typical daily flow at the MVRWRF is 10.6 million gallons per day with a current capacity of 16 million gallons per day, having a current excess capacity of approximately 5.4 million gallons per day.[72] As stated previously, EMWD's 2015 average daily per capita water demand for commercial uses is 17.6 gallons per day,[73] and 39 employees and 4,925 patrons per day would demand approximately 87,366 gallons (0.268 acre-foot) of water per day.[74] As a worst case scenario, even if 100 percent of the project's anticipated water demand (87,366 gallons per day) were dedicated to wastewater, the project demand

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66 *Ibid.* Table 5-7 and Page 5-6.
67 (39 employees + 4,925 patrons) × 17.6 gallons per capita per day = 87,366.4 gallons per day.
68 The Metropolitan Water District of Southern California. *2015 Urban Water Management Plan.* Page ES-2. June 2016.
69 *Ibid.* Tables 2-4, 2-5, and 2-6.
70 City of Moreno Valley. *Moreno Valley General Plan Final Program EIR.* Sewer Services, Public Services and Utilities. July 2006.
71 Eastern Municipal Water District. *Wastewater Service.* https://www.emwd.org/wastewater-service. (Accessed July 1, 2020).
72 Eastern Municipal Water District. *Moreno Valley Regional Water Reclamation Facility.* https://www.emwd.org/sites/main/files/file-attachments/mvrwrffactsheet.pdf?1537294991. October 2016.
73 *Ibid.* Table 5-7 and Page 5-6.
74 (39 employees + 4,925 patrons) × 17.6 gallons per capita per day = 87,366.4 gallons per day.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

for wastewater treatment would represent 1.6 percent of the MVRWRF's current excess wastewater treatment capacity of approximately 5.4 million gallons per day, which would be more than adequate to serve the project in addition to existing entitlements. Full buildout of the City's General Plan will exceed the existing capacity of the MVRWRF; however, expansion of the MVRWRF is planned in and around the northern portion of the existing facility to accommodate future demand as buildout of the General Plan occurs. EMWD has prepared a Water Supply Strategic Plan and Recycled Water Strategic and Master Plan for its service area and levies connection charges on new development to finance the construction of necessary facilities, which would be subject to project- and site-specific environmental review under CEQA, to ensure adequate service. The proposed project's incremental contribution to water and wastewater treatment demand would not in and of itself exceed the existing or planned capacity of the MVRWRF or require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Additionally, the proposed project would be required to comply with the applicable waste discharge prohibitions and water quality objectives established by the Santa Ana RWQCB. The project Applicant would also be required to satisfy City requirements related to the payment of fees and/or the provision of wastewater conveyance features, and installation and maintenance prior to the issuance of building permits. Adherence to requirements included in the NPDES permit, SWPPP, WQMP, and City wastewater conveyance standards would ensure potential impacts from wastewater treatment capacity remain **less than significant.** Mitigation is not required.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐

Response:
Less Than Significant Impact. Solid waste collection is a "demand-responsive" service, and current service levels can be expanded and funded through user fees. Solid waste generated within the proposed Project would be generated in the Riverside County Waste Management Department's (RCWMD) Badlands Landfill located at 31125 Ironwood Avenue approximately 5-miles northeast of the project site. The Badlands Sanitary Landfill has a maximum daily permitted throughput of 4,800 tons per day and remaining capacity of 15,748,799 cubic yards.[75] Based on a solid waste generation of 0.9 pound per 100 square feet of service station per day and 17 pounds per employee of a fast-food restaurant per day,[76] the proposed project is anticipated to generate approximately 495.8 pounds of solid waste per day (90.48 tons/year).[77] The volume of solid waste anticipated by the proposed project per day represents approximately 0.005 percent of the current permitted throughput at the Badlands Sanitary Landfill. As adequate daily surplus capacity exists at the receiving landfill, development of the proposed project would not significantly affect current operations of the landfill serving the project area. A **less than significant** impact would occur, and mitigation is not required.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Response:
Less Than Significant Impact. The proposed project would be required to comply with applicable elements of AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991) and other applicable local, State, and federal solid waste disposal standards, thereby ensuring that the solid waste stream to the Badlands Sanitary Landfill is reduced in accordance with existing regulations. The construction contractor must recycle/reuse at least 65 percent of the construction material (including, but not limited to, proposed aggregate base, soil, mulch, vegetation, concrete, lumber, metal, and cardboard) and use "Green Building Materials," such as those materials that are rapidly renewable or resource efficient, and recycled and manufactured in an environmentally friendly way, for at least 10 percent of the project, in accordance with CalRecycle regulations. City Municipal Code Section 8.80.040 (On-site

[75] CalRecycle. *Facility/Site Summary Details: Badlands Sanitary Landfill.* 2020.
[76] CalRecycle. *Estimated Solid Waste Generation Rates.* https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates#Industrial. (Accessed July 1, 2020).
[77] 0.9 pounds of solid waste × (4,088 square feet ÷ 100) = 36.8 pounds per day for the service station. 17 pounds of solid waste × 27 restaurant employees = 459 pounds per day for the restaurant. (36.8 + 459 = 495.8 pounds per day of solid waste).

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

practices) establishes protocols the construction contractor must follow to ensure construction materials that are recyclable and/or reusable are separated from the waste stream and quantified.

Pursuant to Assembly Bill 341, all commercial accounts with the City's solid waste provider, Waste Management of the Inland Empire, must implement a recycling program if it would generate at least four cubic yards of solid waste per week. Compliance with regulations related to solid waste disposal and diversion is required for all projects within the City as a matter of regulatory policy. Therefore, the Project would not conflict with statutes and regulations related to solid waste. A **less than significant** impact related to this issue would occur. Mitigation is not required.

Sources:

1. Moreno Valley General Plan, adopted July 11, 2006
   - Chapter 2 – Conservation Element – Section 2.4 – Utilities
   - Chapter 6 – Safety Element – Section 6.7 – Water Quality
   - Chapter 7 – Conservation Element – Section 7.3 – Solid Waste
   - Chapter 7 -- Conservation Element – Section 7.5—Water Resources
     - Figure 7-1 – Water Purveyor Service Area Map
2. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
   - Section 5.7 – Hydrology and Water Quality
     - Figure 5.7-1 – Strom Water Flows and Major Drainage Facilities
     - Figure 5.7-2 – Groundwater Basins
   - Section 5.13 – Public Services
     - Figure 5.13-1 – Locations of Public Facilities
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
4. Moreno Valley Municipal Code Chapter 8.10 Stormwater/Urban Runoff Management and Discharge Controls
5. Moreno Valley Municipal Code Section 8.21.170 National Pollutant Discharge Elimination System (*NPDES*).
6. Moreno Valley Municipal Code Chapter 8.80 – Recycling and Diversion of Construction and Demolition Waste

XX. **WILDFIRE –** If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, **would the project:**				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒

Response:
No Impact. The project site is not located within any State Responsibility Area (SRA) for fire service,[78] and is not within a Very High Fire Hazard Severity Zone (VHFHSZ).[79] In addition, as noted in Response to Checklist Question 9.f, the proposed project would not impair the implementation of, or physically interfere with, and adopted emergency response plan, and **no impact** would occur. Mitigation is not required.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒

Response:
No Impact. Refer to Response to Checklist Question 20.a. Additionally, the project site is generally flat and is bound by existing development on all sides. Therefore, the proposed project would not exacerbate wildfire risks and expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. **No impact** would occur. Mitigation is not required.

[78] California Board of Forestry and Fire Protection. *State Responsibility Area Viewer*. 2020. https://bof.fire.ca.gov/projects-and-programs/state-responsibility-area-viewer/. (Accessed June 2020).
[79] City of Moreno Valley. *Moreno Valley General Plan Final Program EIR.* July 11 2006.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒

Response:
No Impact. Refer to Response to Checklist Question 20.a. The project is not located within a SRA for fire service or VHFHSZ. Therefore, the project would not require the installation or maintenance of associated infrastructure. **No impact** would occur. Mitigation is not required.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Response:
No Impact. Refer to Response to Checklist Question 20.a and 20.b. The project site is not located within an SRA for fire service or VHFHSZ and is generally flat. Therefore, the proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. **No impact** would occur. Mitigation is not required.

Sources:

1. Moreno Valley General Plan, adopted July 11, 2006
   - Chapter 6 – Safety Element – Section 6.2- Fire and Emergency Services – 6.2.8—Wildland Urban Interface
2. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
   - Section 5.5 – Hazards and Hazardous Materials
     - Figure 5.5-2 – Floodplains and High Fire Hazard Areas
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
4. Local Hazard Mitigation Plan, City of Moreno Valley Fire Department, adopted October 4, 2011, amended 2017, http://www.moval.org/city_hall/departments/fire/pdfs/haz-mit-plan.pdf
   - Chapter 5 – Wildland and Urban Fires
     - Figure 5-2 – Moreno Valley High Fire Area Map 2016
   - Chapter 8 – Landslide
     - Figure 8-1 – Moreno Valley Slope Analysis 2016
5. Emergency Operations Plan, City of Moreno Valley, March 2009, http://www.moval.org/city_hall/departments/fire/pdfs/mv-eop-0309.pdf
   - Threat Assessment 3 – Wildfire

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have 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 animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

Response:
Less than Significant with Mitigation Incorporated. The natural habitat of the site was cleared around the 1920s to establish a residence on the property (Appendix C). The site has been routinely disked since

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

at least 1966 for weed abatement, and the residence was removed by 2002.[80] The site remains highly disturbed and contains a variety of ornamental trees and ruderal vegetation as a result of seasonal weed abatement activities (Appendix B).

Compliance with the NPDES and City's MS4 Permit ensures the State's mandatory standards for the maintenance of clean water and the federal minimums are met. Compliance with the provisions of the NPDES permit and implementation of the LID BMPs specified in the WQMP are regulatory requirements that apply to all development projects. These requirements are detailed as **Mitigation Measures HYD-1** through **HYD-3**. A Final WQMP will be approved as a routine action during the processing of the Project by the City; therefore, the required measures and features detailed in the WQMP to safeguard water quality would be incorporated into the Project. Implementation of **Mitigation Measures HYD-1** through **HYD-3** and the requirements included in the NPDES permit, SWPPP, and WQMP would ensure impacts to water quality remain **less than significant with mitigation incorporated.**

No riparian or sensitive natural community is located on site, and there is no designated critical habitat within or adjacent to the project site for any species (Appendix B). The project site does not include any federally protected wetlands or any drainage features, ponded areas, wetlands, or riparian habitat subject to jurisdiction by the CDFW, USACE, and/or RWQCB. The project-specific Biological Resources Assessment (Appendix B) included a literature search and pedestrian survey of the site and indicates the site does not contain suitable habitat for any threatened or endangered species. The project site is located within the Stephens' Kangaroo Rat Habitat Conservation Plan area and a fee payment will be required prior to issuance of a grading permit. The project will comply with the Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County (Riverside County Habitat Conservation Agency, February 1995) and fulfill its compensatory mitigation requirements under this plan through the payment of a fee

Ornamental trees that provide suitable nesting habitat for common bird species are located on site, so the project would be conditioned via **Mitigation Measure BIO-1** to ensure a qualified biologist conducts a pre-construction survey for nesting birds if construction activities occur during nesting bird season in accordance with Sections 3503–3801 of the California Fish and Game Code. The ornamental trees are expected to be removed and will be managed in accordance with Part E and Part G of 9.17.030 (Landscape and Irrigation Design Standards) of the City Municipal Code. Prior to the issuance of grading permits, the project Applicant must submit detailed grading plans prepared in conformance with applicable standards of the City's Landscape and Irrigation Design Standards. The City, at final plan check, would ensure that all improvements associated with the project are consistent with these City standards and requirements. Compliance with these standards is required of all projects in the City as a matter of regulatory policy (i.e., City Municipal Code) and therefore would not constitute mitigation in order to remove the trees. With implementation of **Mitigation Measure BIO-1** for a pre-construction nesting bird survey, impacts to native resident or migratory fish or wildlife species, established native resident or migratory wildlife corridors, and native wildlife nursery sites would be reduced to **less than significant with mitigation incorporated.**

The Project-specific Cultural Resources Assessment (Appendix C) identified and recorded remnants (a utility pole, structural slab, and a glass bottle fragment) of a residence constructed prior to 1930 within the project boundaries. The residence was demolished prior to 2002, and only the concrete slab foundation, utility pole, and glass bottle fragment remain. Demolition of the historic-era residence has eliminated the context required to convey any historical significance of the property. The remnant features (utility pole and slab) and glass bottle fragment are typical examples of regionally and locally ubiquitous features and artifacts with no unique character-defining features that could contribute to the significance of the property or to the features and artifacts themselves. Therefore, their removal during construction would not constitute a significant impact. Due to the former presence of a pre-Depression Era residence, the project area retains some potential for associated subsurface resources, and archaeological monitoring is prescribed during ground-disturbing activities. **Mitigation Measures TCR-1** through **TCR-6,** although prescribed to address Tribal Cultural Resources, will serve to ensure archaeological and historic-era cultural resources inadvertently encountered during ground disturbing

[80] Nationwide Environmental Title Research, LLC. *Historic Aerials by NETRonline.* https://historicaerials.com/viewer. (Accessed July 1, 2020).

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

activities are managed pursuant to CEQA Guidelines Section 15064.5. Impacts related to historical and archaeological resources therefore would be **less than significant with mitigation incorporated**.

Through consultation between the City and Native American tribes pursuant to SB 18 and AB 52, the City prescribes **Mitigation Measures TCR-1** through **TCR-6** to ensure the project would include provisions for Native American Monitoring of ground-disturbing activities and would be conditioned to cease excavation or construction activities if tribal cultural or archaeological resources are identified during execution. These measures would ensure further consultation with interested Native American Tribes for the appropriate treatment of Tribal Cultural Resources. Additionally, implementation of **Mitigation Measures GEO-1** and **GEO-2** would ensure unanticipated paleontological resources encountered during construction would be managed pursuant to applicable regulatory policy. Accordingly, impacts to important examples of major periods of California history or prehistory would be reduced to **less than significant with mitigation incorporated.**

The proposed Project has either no impact, less than significant impact, or less than significant impact with implementation of mitigation with respect to all natural resources issues pursuant to CEQA. Due to the limited scope of physical impacts to the environment associated with the proposed Project, implementation of the Mitigation Measures described above would ensure impacts to the quality of the environment would be reduced to **less than significant with mitigation incorporated**.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current project, and the effects of probable future projects.)	☐	☒	☐	☐

Response:

Less than Significant with Mitigation Incorporated. In evaluating the cumulative effects of the Project, Section 21100(e) of the *CEQA Guidelines* states that "previously approved land use documents including, but not limited to, general plans, specific plans, and local coastal plans, may be used in cumulative impact analysis." The project Applicant indicates the project is expected to generate up to 39 employees for the restaurant and convenience store/service station. When compared to the planned use of the site for residential/office uses, the proposed changes in the land use designation would not substantially alter the housing and employment forecast in the City.

As discussed in Checklist Response 3.b, construction and operation of the project would not generate criteria pollutants in excess of SCAQMD emissions thresholds. Therefore, the project would not contribute significantly to cumulative impacts for any air quality pollutants for which the region is in nonattainment. As for cumulative impacts to regional air quality, the discussion in Checklist Response 3.a indicates the proposed project would neither conflict with the SCAQMD's AQMP nor jeopardize the region's attainment of air quality standards. The SCAQMD uses the project-level significance thresholds to determine whether a project's emissions are cumulatively considerable. Because the project's emissions do not exceed the SCAQMD's regional significance thresholds, as detailed in Checklist Response 3.b, the SCAQMD does not consider the project to contribute significantly to a cumulative air quality impact.

It is anticipated that the proposed commercial retail project, as a small-scale service station with convenience store and drive-through restaurant, would serve primarily the residential units in the immediate vicinity of the site and provide them with the convenience of availing certain amenities close to home. Therefore, trip lengths would be shortened and vehicle travel would be reduced. This project has a much lower square footage (7,088 square feet for all uses combined) compared to the 50,000 square-foot threshold for VMT analysis of retail projects. Therefore, the project is considered a local serving retail land use that would not have a cumulatively considerable impact on VMT.

Through implementation of **Mitigation Measure TRA-1**, the improvements at Perris Boulevard/Atwood Avenue and Perris Boulevard/ Cottonwood Avenue under the existing-with-project scenario, payment into the TUMP, and payment of fair share, as detailed in Table 17.B, would ensure the project would maintain the LOS standards outlined in the City's General Plan under project-specific and cumulative

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

scenarios and therefore would not conflict with a program, plan, ordinance or policy addressing the circulation system.

As detailed in Checklist Response 13.a, the project-related traffic noise increase on adjacent roadways would be up to 1.5 dBA. Noise level increases less than 3 dBA would not be perceptible to the human ear in an outdoor environment. Therefore, traffic noise impacts from cumulative Project-related traffic on off-site sensitive receptors would be **less than significant**.

Finally, as detailed throughout Section 3.19, Utilities and Service Systems, sufficient utility facilities and resources are available to serve the Project in addition to existing entitlements.

The Project has no impact, a less than significant impact, or a less than significant impact with implementation of mitigation with respect to all environmental issues. Therefore, a **less than significant** cumulative impact would occur **with mitigation incorporated.**

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Response:

Less than Significant with Mitigation Incorporated. All development associated with the proposed project must comply with applicable provisions of the 2019 CBC and the City's building regulations. Accordingly, proper engineering design and construction in conformance with the 2019 CBC standards and project-specific geotechnical recommendations would ensure that the Project does not subject people to significant geologic hazards.

The transport, use, and storage of hazardous materials during the construction and operation of the site would be conducted pursuant to all applicable local, State and federal laws, and in cooperation with the Riverside County Fire Department, Riverside County Department of Environmental Health, Hazardous Materials Division, Environmental Protection and Oversight Division, and California Occupational Safety and Health Administration. Additionally, the United States Department of Transportation Office of Hazardous Materials Safety prescribes strict regulations for the safe transportation of hazardous materials by truck and rail on State highways and rail lines, as described in Title 49 of the *Code of Federal Regulations*, and implemented by Title 13 of the California Code of Regulations.

The proposed service station would utilize hazardous materials on a daily basis including gasoline, oil, solvents, and cleaning products. Two underground storage tanks (USTs) (one is 20,000 gallons and the other is 12,000 gallons/8,000 gallons combination tank) are proposed on the west side of the proposed canopy along with 6 MPDs (12 total fueling stations). Accordingly, the project would develop a Hazardous Materials Business Emergency Plan administered by the Riverside County Fire Department, as applicable, in accordance with California Health and Safety Code Section 25507 and other local, state, and federal standards, ordinances, and regulations. As required by Health and Safety Code Section 25507, a business shall establish and implement a Hazardous Materials Business Emergency Plan for emergency response to a release or threatened release of a hazardous material in accordance with the standards prescribed in the regulations adopted pursuant to Section 25503 if the business handles a hazardous material or a mixture containing a hazardous material that has a quantity at any one time above the thresholds described in Section 25507(a) (1) through (8).

Depending on the specific tenants of the project site, the project would also be required to implement health and safety policies and procedures regarding hazardous materials used where employees would be expected to handle or work around hazardous materials. Pursuant to the Federal Hazard Communication Standard (29 CFR 1910.1200) and the Laboratory Standard (29 CFR 1910.1450), Safety Data Sheets (SDS) outlining procedures to address spills and leaks for individual chemicals would be used to conduct chemical safety training for all employees who work with chemicals in order to minimize the occurrence of accidental chemical releases and ensure that, when one does occur, it is handled in a safe manner. The underground fuel storage tanks would also require permitting and monitoring by the City Fire Department and the County Department of Environmental Health as the Certified Unified Program Agency (CUPA) for Riverside County.

These regulations inherently safeguard life and property from the hazards of fire/explosion arising from the storage, handling, and use of hazardous substances, materials, and devices, as well as hazardous conditions due to the use or occupancy of buildings. Through compliance with all applicable federal,

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

State, and local laws, impacts to the public or environment from hazardous materials would be **less than significant**.

The project is required to comply with SCAQMD Rule 402, which states: "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property." Furthermore, SCAQMD Rule 461 - Gasoline Transfer and Dispensing, requires the installation of enhanced vapor recovery systems that would reduce the amount of vapor that would be emitted into the atmosphere by 95 to 98 percent from levels without such systems. SCAQMD published its *Final Localized Significance Threshold Methodology* in June 2003 and updated it in July 2008,[81] recommending that all air quality analyses include an assessment of both construction and operational impacts on the air quality of nearby sensitive receptors. Localized significance thresholds (LSTs) represent the maximum emissions from a project site of up to 5 acres that are not expected to result in an exceedance of the National Ambient Air Quality Standards or California Ambient Air Quality Standards for CO, NO_2, PM_{10} and $PM_{2.5}$. LSTs are based on the ambient concentrations of that pollutant within the project Source Receptor Area (SRA) and the distance to the nearest sensitive receptor. For this project, the appropriate SRA is the Perris Valley Area (SRA 24) according to the project air quality analysis included in Appendix A. As detailed in Tables 3.C and 3.D, construction and operation of the proposed project would not expose nearby sensitive receptors to substantial pollutant concentrations.

As detailed in Checklist Responses 13.a and 13.b, construction and operation of the project would not generate a substantial temporary or permanent increase in ambient noise levels or generate vibration in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance with implementation of **Mitigation Measures NOI-1** and **NOI-2.**

Through compliance with existing regulations and policy, as well as **Mitigation Measures NOI-1** and **NOI-2,** substantial direct or indirect effects on human beings would be reduced to **less than significant with mitigation incorporated**.

REFERENCES

California Board of Forestry and Fire Protection. *State Responsibility Area Viewer*. 2020. https://bof.fire.ca.gov/projects-and-programs/state-responsibility-area-viewer/. (Accessed June 2020).

California Department of Conservation, Division of Land Resource Protection. *Riverside County Williamson Act FY 2015/2016, Sheet 1 of 3.* ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Riverside_w_15_16_WA.pdf. (Accessed June 4, 2019).

California Department of Conservation, Farmland Mapping and Monitoring Program. *Riverside County Important Farmland* 2016. https://www.conservation.ca.gov/dlrp/fmmp/Pages/Riverside.aspx (Accessed June 4, 2019).

California Department of Forestry and Fire Protection. *Fire Hazard Severity Zones in SRA and Very High Fire Hazard Severity Zones in LRA*. 2007. http://www.fire.ca.gov/fire_prevention/fhsz_maps_riversidewest. (Accessed June 20, 2020).

[81] South Coast Air Quality Management District. *Final Localized Significance Thresholds Methodology*. June 2003, Revised July 2008.

California Department of Toxic Substances Control. *EnviroStor, Site/Facility Search.* https://www.envirostor.dtsc.ca.gov/public/map/?global_id=60000502. (Accessed June 20, 2019).

California Department of Transportation. *Technical Noise Supplement to the Traffic Noise Analysis Protocol.* September 2013.

California Energy Commission. *2017 Integrated Energy Policy Report. Publication Number: CEC-100-2017-001-CMF.* 2017.

California Energy Commission. *California Gasoline Data, Facts, and Statistics.* 2020. https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-gasoline-data-facts-and-statistics. (Accessed June 2020).

California Energy Commission. *Energy Consumption Data Management Service. Electricity Consumption by County.* 2017. www.ecdms.energy.ca.gov/elecbycounty.aspx. (Accessed June 2020).

California Energy Commission. *Energy Consumption Data Management Service. Gas Consumption by County.* 2017. www.ecdms.energy.ca.gov/gasbycounty.aspx. (Accessed June 2020).

California Health and Safety Code. *Division 7, Dead Bodies;* Chapter 2, General Provisions, § 7050.5.

California Scenic Highway Mapping System. 2011. *Riverside County*. http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/. (Accessed June 2020).

California State Legislature, Legislative Analyst's Office. *An Evaluation of the School Facility Fee Affordable Housing Assistance Programs*, January 2001. http://www.lao.ca.gov/2001/011701_school_facility_fee.html (accessed May 26, 2020).

CalRecycle. *Estimated Solid Waste Generation Rates.* https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates#Industrial. (Accessed July 1, 2020).

CalRecycle. *Facility/Site Summary Details: Badlands Sanitary Landfill.* 2020.

City of Moreno Valley. *City of Moreno Valley General Plan*. July 11, 2006.

City of Moreno Valley. C*ity of Moreno Valley General Plan Final Program EIR*. July 2006.

Eastern Municipal Water District. *2015 Urban Water Management Plan.* Page 7-1. June 2016.

Eastern Municipal Water District. *Moreno Valley Regional Water Reclamation Facility.* https://www.emwd.org/sites/main/files/file-attachments/mvrwrffactsheet.pdf?1537294991. October 2016.

Eastern Municipal Water District. *Wastewater Service.* https://www.emwd.org/wastewater-service. (Accessed July 1, 2020).

Federal Transit Administration. *Transit Noise and Vibration Impact Assessment Manual.* September 2018.

Kimley Horn and Associates, Inc. *City of Moreno Valley Preliminary Drainage Study for Cadence Capitol Investments, Perris Blvd and Dracaea Avenue, APN: 479-120-027, 029, 042, 043.* Page 5. April 2020.

Kimley Horn and Associates, Inc. *Project Specific Water Quality Management Plan, 7-Eleven Moreno Valley*. May 28, 2019.

Kimley Horn and Associates, Inc. *Project Specific Water Quality Management Plan, Drive-Thru Restaurant Moreno Valley*. May 28, 2019.

LSA Associates, Inc. *Air Quality and Greenhouse Gas Analysis for the Commercial Retail Project at Perris Boulevard and Dracaea Avenue in the City of Moreno Valley, California..* May 4, 2020. (Appendix A).

LSA Associates, Inc. *Cultural Resources Assessment, Perris Boulevard and Dracaea Avenue Commercial Retail Project, City of Moreno Valley*. April 2020. (Appendix C).

LSA Associates, Inc. *Noise and Vibration Impact Analysis Memorandum for the Commercial Retail Project at Perris Boulevard and Dracaea Avenue in the City of Moreno Valley, California.* May 2020. (Appendix D).

LSA Associates, Inc. *Traffic Impact Analysis, Perris/Dracaea Commercial Project.* Table 5-A. May 2020. (Appendix E).

LSA Associates, Inc. *Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis and Biology Report, Commercial Retail Project at Perris Boulevard/Dracaea Avenue*. City of Moreno Valley. April 2020. (Appendix B).

Nationwide Environmental Title Research, LLC. *Historic Aerials by NETRonline.* https://historicaerials.com/viewer. (Accessed July 1, 2020).

Riverside County Airport Land Use Commission. *March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan*. November 13, 2017.

South Coast Air Quality Management District. *Final Localized Significance Thresholds Methodology*. June 2003, Revised July 2008.

The Metropolitan Water District of Southern California. *2015 Urban Water Management Plan.* Tables 2-4, 2-5, and 2-6. June 2016.

United States Department of Agriculture, Natural Resources Conservation Service. *Web Soil Survey*. https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. (Accessed June 17, 2019).

Appendix A:

Air Quality and Greenhouse Gas Analysis for the Commercial Retail Project at Perris Boulevard and Dracaea Avenue in the City of Moreno Valley, California

LSA

CARLSBAD
FRESNO
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

MEMORANDUM

DATE: May 4, 2020

TO: Dave Runberg, Cadence Acquisition LLC
Joey Ly, TAIT & Associates

FROM: Michael Slavick, Senior Air Quality Specialist

SUBJECT: Air Quality and Greenhouse Gas Analysis for the Commercial Retail Project at Perris Boulevard and Dracaea Avenue in the City of Moreno Valley, California (LSA Project No. CAQ1901)

LSA has completed an Air Quality and Greenhouse Gas Analysis for the proposed Commercial Retail Project (proposed project) at the northeast corner of Perris Boulevard and Dracaea Avenue in the City of Moreno Valley (City) in Riverside County. This Air Quality and Greenhouse Gas Analysis has been prepared using methods and assumptions recommended in the *CEQA Air Quality Handbook* of the South Coast Air Quality Management District (SCAQMD). In keeping with these guidelines, this analysis describes existing air quality and potential impacts generated by the implementation of the proposed project related to generated criteria air pollutants and greenhouse gas (GHG) emissions. Mitigation measures to reduce or eliminate significant air quality impacts are identified, where appropriate.

PROJECT DESCRIPTION

The project includes development of a 3,000-square foot drive-through restaurant and a 4,088-square foot convenience store with fuel pumps. The fueling station will include 12 fueling positons (6 multi-product dispensers [MPDs]). Development of the project is proposed on a 2.30-acre site at the northeast corner of Perris Boulevard and Dracaea Avenue and encompasses Assessor's Parcel Numbers 479-120-042, 027, 029, and 043.

Attached Figure 1 illustrates the regional and project location. Attached Figure 2 illustrates the conceptual site plan for the project. (All figures and tables are enclosed as Attachments A and B, respectively.)

BACKGROUND

This section provides background information on air pollutants and their health effects. It also provides information from the California Air Resources Board's *Air Quality and Land Use Handbook*[1] (*CARB Handbook*), a description of the general health risks of toxics, and the significance criteria for project evaluation.

[1] California Air Resources Board (ARB), 2005. *Air Quality and Land Use Handbook: A Community Health Perspective.* April.

Air Pollutants and Health Effects

The project site is located in the City of Moreno Valley in the non-desert portion of the County of Riverside (County), California, which is part of the South Coast Air Basin (Basin) and is under the jurisdiction of the SCAQMD. The air quality assessment for the proposed project includes the estimation of the emissions associated with short-term construction and long-term operation of the proposed project.

Both State and federal governments have established health-based Ambient Air Quality Standards (AAQS) for six criteria air pollutants:[2] carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and suspended particulate matter (PM_{10} and $PM_{2.5}$). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Long-term exposure to elevated levels of criteria pollutants may result in adverse health effects. However, emissions thresholds established by an air district are used to manage total regional emissions within an air basin based on the air basin's attainment status for criteria pollutants. These emissions thresholds were established for individual projects that would contribute to regional emissions and pollutant concentrations and could adversely affect or delay the projected attainment target year for certain criteria pollutants.

Because of the conservative nature of the thresholds and the basin-wide context of individual project emissions, there is no direct correlation between a single project and localized air quality-related health effects. One individual project that generates emissions exceeding a threshold does not necessarily result in adverse health effects for residents in the project vicinity. This condition is especially true when the criteria pollutants exceeding thresholds are those with regional effects, such as ozone (O_3) precursors like nitrogen oxides (NOx) and reactive organic gases (ROG).

Occupants and users of facilities such as schools, daycare centers, parks and playgrounds, hospitals, and nursing and convalescent homes are considered to be more sensitive than the general public to air pollutants because these population groups have increased susceptibility to respiratory disease. Persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality. Residential areas are considered more sensitive to air quality conditions, compared to commercial and industrial areas, because people generally spend longer periods of time at their residences, with greater associated exposure to ambient air quality conditions. Recreational uses are also considered sensitive compared to commercial and industrial uses due to greater exposure to ambient air quality conditions associated with exercise.

Greenhouse Gases and Global Climate Change

Global climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans in recent decades. The Earth's average near-surface atmospheric temperature rose 0.6 ± 0.2° Celsius (°C) or 1.1 ± 0.4° Fahrenheit (°F) in the 20th century. The prevailing scientific opinion on climate change is that most of the warming observed over the last 50

[2] United States Environmental Protection Agency (EPA), 2014. Criteria pollutants are defined as those pollutants for which the federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health.

years is attributable to human activities. The increased amounts of carbon dioxide (CO_2) and other greenhouse gases (GHGs) are the primary causes of the human-induced component of warming. GHGs are released by the burning of fossil fuels, land clearing, agriculture, and other activities, and lead to an increase in the greenhouse effect.[3]

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- Carbon dioxide (CO_2);
- Methane (CH_4);
- Nitrous oxide (N_2O);
- Hydrofluorocarbons (HFCs);
- Perfluorocarbons (PFCs); and
- Sulfur Hexafluoride (SF_6).

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, and enhancing the natural greenhouse effect, which is believed to be causing global warming. While manmade GHGs include naturally-occurring GHGs such as CO_2, methane, and N_2O, some gases, like HFCs, PFCs, and SF_6 are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. For the purposes of this air quality analysis, the term "GHGs" will refer collectively to the six gases listed above only.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each greenhouse gas to trap heat in the atmosphere relative to another gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to carbon dioxide, the most abundant GHG; the definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalents" (CO_2e).

[3] The temperature on Earth is regulated by a system commonly known as the "greenhouse effect." Just as the glass in a greenhouse lets heat from sunlight in and reduces the heat escaping, greenhouse gases like carbon dioxide, methane, and nitrous oxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, although an excess of greenhouse gas results in global warming, the *naturally occurring* greenhouse effect is necessary to keep our planet at a comfortable temperature.

Air Quality Regulatory Setting

South Coast Air Quality Management District

The SCAQMD has jurisdiction over most air quality matters in the South Coast Air Basin. This area includes all of Orange County, Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. Los Angeles County is a subregion of the SCAQMD jurisdiction. The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Basin and is tasked with implementing certain programs and regulations required by the Federal Clean Air Act (CAA) and the California Clean Air Act (CCAA). The SCAQMD prepares plans to attain California and National Ambient Air Quality Standards (CAAQS and NAAQS, respectively). SCAQMD is directly responsible for reducing emissions from stationary (area and point) sources. The SCAQMD develops rules and regulations, establishes permitting requirements, inspects emissions sources, and enforces such measures though educational programs or fines, when necessary.

The proposed project could be subject to the following SCAQMD rules and regulations:

- **Regulation IV – Prohibitions:** This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air pollutant emissions, fuel contaminants, start-up/ shutdown exemptions and breakdown events.
    - **Rule 402 – Nuisance:** This rule restricts the discharge of any contaminant in quantities that cause or have a natural ability to cause injury, damage, nuisance, or annoyance to businesses, property or the public. The proposed project does not plan on discharging any contaminants in quantities that would cause injury to the public or property. Future development resulting from approval of the project will comply with Rule 402.
    - **Rule 403 – Fugitive Dust:** This rule requires the prevention, reduction, or mitigation of fugitive dust emissions from a project site. Rule 403 restricts visible fugitive dust to a project property line, restricts the net PM_{10} emissions to less than 50 µg/m^3 and restricts the tracking out of bulk materials onto public roads. Additionally, Rule 403 requires an applicant to utilize one or more of the best available control measures (identified in the tables within the rule). Mitigation measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers, and/or ceasing all activities during periods of high wind. Finally, Rule 403 requires that a contingency plan be prepared if so determined by the Environmental Protection Agency (EPA). Future development resulting from approval of the project will comply with Rule 403.
- **Regulation XI – Source-Specific Standards:** Regulation XI sets emissions standards for different sources.
    - **Rule 1113 – Architectural Coatings:** This rule limits the amount of volatile organic compounds (VOCs) from architectural coatings and solvents, which lowers the emissions of odorous compounds.

The SCAQMD is responsible for demonstrating regional compliance with ambient air quality standards but has limited indirect involvement in reducing emissions from fugitive, mobile, and natural sources. To that end, the SCAQMD works cooperatively with the CARB, the Southern

California Association of Governments (SCAG), county transportation commissions, local governments, and other federal and State government agencies. It has responded to this requirement by preparing a series of Air Quality Management Plans (AQMPs) to meet the CAAQS and NAAQS. SCAQMD and the SCAG are responsible for formulating and implementing the AQMP for the South Coast Air Basin. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. Every three years, SCAQMD prepares a new AQMP, updating the previous plan and 20-year horizon (SCAQMD 2016).

SCAQMD approved the 2016 AQMP on March 3, 2017, and submitted the plan to CARB on March 10, 2017. Key elements of the 2016 AQMP include the following:

- Calculating and taking credit for co-benefits from other planning efforts (e.g., climate, energy, and transportation);
- A strategy with fair-share emission reductions at the federal, State, and local levels;
- Investment in strategies and technologies meeting multiple air quality objectives;
- Seeking new partnerships and significant funding for incentives to accelerate deployment of zero-emission and near-zero emission technologies;
- Enhanced socioeconomic assessment, including an expanded environmental justice analysis;
- Attainment of the 24-hour $PM_{2.5}$ standard in 2019 with no additional measures;
- Attainment of the annual $PM_{2.5}$ standard by 2025 with implementation of a portion of the O_3 strategy; and
- Attainment of the 1-hour O_3 standard by 2022 with no reliance on "black box" future technology (FCAA Section 182(e)(5) measures).

County of Riverside Climate Action Plan

The County of Riverside Climate Action Plan (CAP) was adopted on December 8, 2015. The CAP establishes goals and policies that incorporate environmental responsibility into County's daily management of residential, commercial and industrial growth, education, energy and water use, air quality, transportation, waste reduction, economic development, open space, and natural habitats to further its commitment. Following the State's adopted AB 32 GHG reduction target, the County has set a goal to reduce emissions back to 1990 levels by the year 2020. The CAP describes a baseline for the County's GHG emissions, projects how these emissions will grow, and includes strategies to reduce emissions to a level consistent with California's emissions reduction target. These strategies complement the County's General Plan policies and are consistent with the vision of the County for a more sustainable community.

City of Moreno Valley General Plan

The City of Moreno Valley General Plan adopted by the City in July 11, 2006, is designed to guide City Council members make land use decisions and shape priorities to allow the City to grow according to the vision of the plan. The plan helps City departments achieve the objectives and policies of the General Plan, and serve as development guidance for projects within the City. The air

quality element identifies the role the City can play in helping the South Coast Air Basin attain the goal of meeting federal and State air quality standards, as well as the function the City has in protecting the residents and businesses from the harmful air contaminants. To achieve these goals, the air quality element has set forth a number of provisions and programs to reduce current air pollutant emissions, while requiring new development to include measures to comply with air quality requirements and to address new stringent air quality standards. The air quality strategies listed in the air quality element include:

- Adopt land use policies that site polluting facilities away from sensitive receptors and vice versa; improve job-housing balance; reduce vehicle miles traveled (VMT) and length of work trips; and improve the flow of traffic.
- Reduce air pollution by reducing emissions from mobile sources. Investment in strategies and technologies meeting multiple air quality objectives.
- Prevent and reduce pollution from stationary sources, including point sources (such as power plants and refinery boilers) and area sources (including small emission sources such as residential water heaters and architectural coatings).
- Reduce particulate matter, as defined by the EPA, as either airborne photochemical precipitates air pollution.
- Increase energy efficiency and conservation in an effort to reduce air pollution.
- Develop a public education program committed to educating the general public on the issues of air pollution and mitigation measures that can be undertaken by businesses and residents to improve air quality.
- Support a regional approach to improving air quality through multi-jurisdictional cooperation.

Moreno Valley Energy Efficiency and Climate Action Strategy

The Energy Efficiency and Climate Action Strategy were adopted by the City on October 5, 2012. In 2014, Moreno Valley was one of 12 cities that collaborated with the Western Riverside Council of Governments (WRCOG) on a Subregional Climate Action Plan (Subregional CAP) that includes 36 measures to guide Moreno Valley's GHG reduction efforts through 2020. The Energy Efficiency and Climate Action Strategy is a policy document that identifies ways that the City of Moreno Valley can reduce energy and water consumption and greenhouse gas emissions. By using energy more efficiently, harnessing renewable energy to power buildings and vehicles, improving access to sustainable transportation modes, recycling more waste, conserving water, and building local food systems, the City can support the local economy, create new green jobs, and improve public health and community quality of life. The Energy Efficiency and Climate Action Strategy contains GHG reduction measures organized into four primary sectors, as defined by the following policy goals:

- Energy:
    - Energy measures designed to increase communitywide building and equipment efficiency and renewable energy use, and promote energy efficiency and renewable energy generation for use supporting municipal operations that support the community.

- Transportation and Land Use:
    - Transportation and land use measures that would reduce single-occupancy vehicle travel, increase non-motorized travel, improve public transit access, increase motor vehicle efficiency, encourage alternative fuel vehicles and promote sustainable growth patterns.
- Water:
    - Water measures that would conserve potable water and reduce water demand by the community and municipal operations.
- Solid Waste:
    - Solid waste measures that would reduce solid waste sent to landfills that is generated by the community and municipal operations.

THRESHOLDS OF SIGNIFICANCE

The State *CEQA Guidelines* indicate that a project would normally have a significant adverse air quality impact if project-generated pollutant emissions would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project is nonattainment under applicable federal or State ambient air quality standards (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

SCAQMD has established daily emissions thresholds for construction and operation of a proposed project in the Basin. The emissions thresholds were established based on the attainment status of the Basin with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety (EPA), these emissions thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

The following CEQA significance thresholds for construction emissions have been established for the Basin:

- 75 pounds per day (lbs/day) of VOC;
- 100 lbs/day of NOx;
- 550 lbs/day of CO;
- 150 lbs/day of PM_{10};
- 55 lbs/day of $PM_{2.5}$; and

- 150 lbs/day of sulfur oxides (SOx).

Projects in the Basin with construction-related emissions that exceed any of these emission thresholds are considered to be significant under SCAQMD guidelines.

The following CEQA significance thresholds for operational emissions have been established for the Basin:

- 55 lbs/day of VOCs;
- 55 lbs/day of NOx;
- 550 lbs/day of CO;
- 150 lbs/day of PM_{10};
- 55 lbs/day of $PM_{2.5}$; and
- 150 lbs/day of SOx.

Projects in the Basin with operational emissions that exceed any of these emission thresholds are considered to be significant under SCAQMD guidelines.

In addition, the SCAQMD published its *Final Localized Significance Threshold Methodology* in July 2008, recommending that all air quality analyses include an assessment of air quality impacts to nearby sensitive receptors.[4] This guidance was used to analyze potential localized air quality impacts associated with construction of a proposed project. Localized significance thresholds (LSTs) are developed based on the size or total area of the emission source, the ambient air quality in the source receptor area, and the distance to the project. The SCAQMD defines structures that house persons (e.g., children, the elderly, persons with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise) or places where they gather as sensitive receptors (e.g., residences, schools, playgrounds, childcare centers, convalescent centers, retirement homes, and athletic fields).

LSTs are based on the ambient concentrations of that pollutant within the project Source Receptor Area (SRA) and the distance to the nearest sensitive receptor. For the proposed project, the appropriate SRA for the LST is the nearby Perris Valley area (SRA 24). SCAQMD provides LST screening tables for 25, 50, 100, 200, and 500-meter source-receptor distances.

The State *CEQA Guidelines* indicate that a project would normally have a significant adverse GHG emissions impact if the project would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reduction the emissions of greenhouse gases.

[4] SCAQMD. 2008. *Final Localized Significance Threshold Methodology.* July.

To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, SCAQMD convened a GHG CEQA Significance Threshold Stakeholder Working Group (Working Group).[5] Based on the last Working Group meeting (Meeting No. 15), held in September 2010, SCAQMD proposed an analysis methodology using a tiered approach for the evaluation of GHG emissions for development projects where SCAQMD is not the lead agency (SCAQMD 2010). The applicable tier for this commercial development project is Tier 3 (if GHG emissions are less than 3,000 metric tons of CO_2e per year, project-level and cumulative GHG emissions are less than significant).

IMPACTS AND MITIGATION MEASURES

The proposed project would release emissions over the short term as a result of construction activities, and over the long term from traffic generation and operation of the project. Emissions would include criteria air pollutants and GHG emissions. The sections below describe the proposed project's consistency with applicable air quality plans, estimated project emissions, and the significance of impacts with respect to SCAQMD thresholds.

Air Quality Impacts

Consistency with Applicable Air Quality Plans

A consistency determination plays an essential role in local agency project review by linking local planning and unique individual projects to the air quality plans. A consistency determination fulfills the CEQA goal of fully informing local agency decision-makers of the environmental costs of the project under consideration at a stage early enough to ensure that air quality concerns are addressed. Only new or amended General Plan elements, Specific Plans, and significantly unique projects need to undergo a consistency review due to the air quality plan strategy being based on projections from local General Plans.

Projects are considered consistent with, and would not conflict with or obstruct implementation of the AQMP, if the growth in socioeconomic factors (e.g., population, employment) is consistent with the underlying regional plans used to develop the AQMP. The future emissions forecasts are primarily based on demographic and economic growth projections provided by SCAG. Thus, demographic growth forecasts for various socioeconomic categories (e.g., population, housing, and employment by industry) developed by SCAG for its 2016 Regional Transportation Plan (SCAG 2016) were used to estimate future emissions in the Final 2016 AQMP (SCAQMD 2016).

Pursuant to the methodology provided in Chapter 12 of the SCAQMD *CEQA Air Quality Handbook* (1993), consistency with the 2016 AQMP is affirmed when a project (1) does not increase the frequency or severity of an air quality standards violation or cause a new violation and (2) is consistent with the growth assumptions in the AQMP. Consistency review is presented as follows:

[5] South Coast Air Quality Management District. Greenhouse Gases (GHG) CEQA Significance Thresholds. Website: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds/, accessed November 2018.

1. The proposed project would result in short-term construction and long-term operational pollutant emissions that are all less than the CEQA significance emissions thresholds established by the SCAQMD, as demonstrated above; therefore, the proposed project could not result in an increase in the frequency or severity of any air quality standards violation and will not cause a new air quality standard violation.
2. The *CEQA Air Quality Handbook* (1993) indicates that consistency with AQMP growth assumptions must be analyzed for new or amended General Plan elements, Specific Plans, and significant projects. Significant projects include airports, electrical generating facilities, petroleum and gas refineries, designation of oil drilling districts, water ports, solid waste disposal sites, and offshore drilling facilities; therefore, the proposed project is not defined as a significant project.

The proposed project would construct a 3,000-square foot drive through restaurant and a 4,088-square foot convenience store with 12 fuel pumps. The project site is designated as a residential office land use in the City's General Plan Land Use Map and is zoned as office commercial. The proposed land uses are not allowed under the existing zoning designation of the site; therefore, the project includes a Zone Change and General Plan Amendment to designate the project site as Community Commercial (CC). The changes in the land use designation would not alter the housing and employment forecast in the City. In addition, there are community commercial uses in the General Plan that may be reallocated within the City and its housing and employment forecast are already included in the AQMP assumptions. As such, the proposed project is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the Basin. In addition, as discussed below, construction of the proposed project would not result in the generation of criteria air pollutants that would exceed SCAQMD thresholds of significance. Operational emissions associated with the proposed project would also not exceed SCAQMD established significance thresholds for VOC, NOx, CO, SO_2, PM_{10}, or $PM_{2.5}$ emissions. Based on the consistency analysis presented above, the proposed project would be consistent with the current regional AQMP and would not conflict with or obstruct implementation of the 2016 AQMP.

Short-Term Construction Emissions

During construction, short-term degradation of air quality may occur due to the release of particulate emissions generated by grading, paving, building, and other activities. Emissions from construction equipment are also anticipated and would include CO, NOx, ROG, directly-emitted particulate matter ($PM_{2.5}$ and PM_{10}), and Toxic Air Contaminants (TACs) such as diesel exhaust particulate matter (DPM).

Project construction activities would include grading, paving, and building activities. Construction-related effects on air quality from the proposed project would be greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near

the source, while fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. The SCAQMD has established Rule 403: Fugitive Dust, which would require the applicant to implement measures that would reduce the amount of particulate matter generated during the construction period.

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO_2, NOx, VOCs and some soot particulate ($PM_{2.5}$ and PM_{10}) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles idle in traffic. These emissions would be temporary in nature and limited to the immediate area surrounding the construction site.

Construction emissions were estimated for the project using the California Emissions Estimator Model (CalEEMod) version 2016.3.2, consistent with SCAQMD recommendations. For purposes of this analysis, the construction schedule was assumed to be approximately six months. The proposed project will be constructed modular portable buildings and the majority of the modular building manufacturing and interior painting will be completed off site. Other precise details of construction activities are unknown at this time; therefore, default assumptions (e.g., construction duration and fleet activities) from CalEEMod were assumed. Table A summarizes construction-related emissions. CalEEMod output sheets are enclosed as Attachment C.

Fugitive Dust. Fugitive dust emissions are generally associated with land clearing and exposure of soils to the air and wind, as well as cut-and-fill grading operations. Dust generated during construction varies substantially on a project-by-project basis, depending on the level of activity, the specific operations, and weather conditions at the time of construction. The proposed project will be required to comply with SCAQMD Rule 403 to control fugitive dust.

Architectural Coatings. Architectural coatings contain VOCs that are part of the O_3 precursors. Based on the proposed project, it is estimated that application of the architectural coatings for the proposed peak construction day will result in a peak of 9.98 lbs/day of VOC. Therefore, VOC emissions from architectural coating application would not exceed the SCAQMD VOC threshold of 75.00 lbs/day.

Construction Emissions Results. As shown in Table A, construction emissions associated with the project would be less than significant for ROG, NOx, CO, SOx, $PM_{2.5}$, and PM_{10} exhaust emissions. Additionally, construction activities associated with the project would be required to comply with SCAQMD Rule 403: Fugitive Dust, which would require the implementation of measures that would reduce the amount of particulate matter generated during the construction period.

Long-Term Operational Emissions

Long-term air pollutant emission impacts are those associated with area sources and mobile sources related to the proposed project. In addition to the short-term construction emissions, the project

would also generate long-term air pollutant emissions, such as those associated with changes in permanent use of the project site. These long-term emissions are primarily mobile source emissions that would result from vehicle trips associated with the proposed project. Area sources, such as natural gas heaters, landscape equipment, and use of consumer products, would also result in pollutant emissions.

PM_{10} emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways. Entrainment of PM_{10} occurs when vehicle tires pulverize small rocks and pavement and the vehicle wakes generate airborne dust. The contribution of tire and brake wear is small compared to the other PM emission processes. Gasoline-powered engines have small rates of particulate matter emissions compared with diesel-powered vehicles.

Energy source emissions result from activities in buildings for which electricity and natural gas are used. The quantity of emissions is the product of usage intensity (i.e., the amount of electricity or natural gas) and the emission factor of the fuel source. Major sources of energy demand include building mechanical systems, such as heating and air conditioning, lighting, and plug-in electronics, such as refrigerators or computers. Greater building or appliance efficiency reduces the amount of energy for a given activity and thus lowers the resultant emissions. The emission factor is determined by the fuel source, with cleaner energy sources, like renewable energy, producing fewer emissions than conventional sources. Area source emissions associated with the project would include emissions from water heating and the use of landscaping equipment.

Emission estimates for operation of the project were calculated using CalEEMod and Table B shows model results. Trip generation rates for the project were based on the project's trip generation estimates, as identified in Table 5-A of the Traffic Impact Analysis report.[6] Based on the Traffic Impact Analysis report, the proposed project would generate approximately 4,925 average daily trips (i.e., ADTs without internal capture and pass-by trips), with approximately 416 trips occurring in the a.m. peak hour and approximately 298 trips occurring in the p.m. peak hour.

The primary emissions associated with the project are regional in nature, meaning that air pollutants are rapidly dispersed on release or, in the case of vehicle emissions associated with the project; emissions are released in other areas of the Basin. Table B identifies the daily emissions associated with project operational trip generation, energy, and area sources for ROG, NOx, CO, SOx, PM_{10}, and $PM_{2.5}$.

The results shown in Table B indicate the project would not exceed the significance criteria for daily ROG, NOx, CO, SOx, PM_{10} or $PM_{2.5}$ emissions; therefore, the proposed project would not have a significant effect on regional air quality and mitigation would not be required.

Localized Significance Analysis

Project construction emissions were compared to the LST screening tables in SRA 24, based on a 25-meter source-receptor distance and a 2.30-acre project size. The results of the LST analysis,

[6] *Traffic Impact Analysis for Commercial Retail Project at Perris Boulevard and Dracaea Avenue*. LSA August 2019.

summarized in Table C and Table D, indicate that the project would not result in an exceedance of the SCAQMD LST during project construction or operation. Therefore, the proposed project would result in less than significant localized air quality impacts during project construction and operation.

Cumulative Air Quality Impacts

In analyzing cumulative impacts from a proposed project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the Basin is listed as nonattainment for the State and federal ambient air quality standards. The proposed project would have a cumulatively considerable impact if project-generated emissions would exceed thresholds for NOx, VOC, PM_{10}, and/or $PM_{2.5}$. If the proposed project does not exceed thresholds and is determined to have less than significant project-specific impacts, it may still have a cumulatively considerable impact on air quality and GHG if the emissions from the project, in combination with emissions from other proposed or reasonably foreseeable future projects, are in excess of established thresholds. However, the proposed project would be considered to have a cumulative impact only if its contribution accounts for a significant portion of the cumulative total emissions.

The geographic extent for the analysis of cumulative impacts related to air quality includes the central area of the South Coast Air Basin. Due to the nonattainment status of the Basin, the primary air pollutants of concern would be NOx and VOCs, which are ozone precursors, and PM_{10} and $PM_{2.5}$. Project-related NOx and VOCs are primarily emitted from motor vehicles and construction equipment, while PM_{10} and $PM_{2.5}$ are emitted primarily as fugitive dust during construction. Because of the nature of ozone as a regional air pollutant, emissions from the entire geographic area for this cumulative impact analysis would tend to be important, although maximum ozone impacts generally occur downwind of the area in which the ozone precursors are released. PM_{10} and $PM_{2.5}$ impacts, on the other hand, would tend to occur locally; thus, projects occurring in the same general area and in the same time period would tend to create cumulative air quality impacts.

The project would contribute criteria pollutants to the area during project construction. A number of individual projects in the area may be under construction simultaneously with the proposed project. Depending on construction schedules and actual implementation of projects in the area, generation of fugitive dust and pollutant emissions during construction could result in substantial short-term increases in air pollutants. However, each project would be required to comply with the SCAQMD's standard construction measures. The proposed project's short-term construction CO, NO_2, PM_{10}, and $PM_{2.5}$ emissions would not exceed the LSTs. Therefore, construction of the proposed project would have a less than significant impact with regard to regional and localized emissions and impacts would not be cumulatively considerable.

Sensitive Receptors

Sensitive receptors are defined as people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling units. The project site is located within an area characterized by a mix of land uses that includes single-family residential uses to the north, east, and south and general commercial/retail uses to the west and southwest. The nearest sensitive receptors to the project site are the off-site single-family residences approximately 50 feet from the northern and eastern border of the project site.

Construction of the proposed project may expose surrounding sensitive receptors to airborne particulates, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). However, construction contractors would be required to implement measures to reduce or eliminate emissions by following SCAQMD standard construction practices. As shown in Table C and Table D, the project would not result in significant localized emissions during project construction or operation. Therefore, once the project is constructed, the project would not be a source of substantial pollutant emissions and sensitive receptors would not be exposed to substantial pollutant concentrations during project construction and operation.

Objectionable Odors

During project construction, some odors may be present due to diesel exhaust. However, these odors would be temporary and limited to the construction period. The proposed project would not include any activities or operations that would generate objectionable odors and once operational, the project would not be a source of odors. Therefore, the proposed project would not create objectionable odors affecting a substantial number of people.

Greenhouse Gas Impacts

This section discusses the proposed project's potential impacts related to the release of GHG emissions for both construction and project operation.

Construction Greenhouse Gas Impacts

Construction activities associated with the proposed project would produce combustion emissions from various sources. During construction, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

The SCAQMD does not have an adopted threshold of significance for construction-related greenhouse gas emissions. However, lead agencies are required to quantify and disclose greenhouse gas emissions that would occur during construction. The SCAQMD then requires the construction GHG emissions to be amortized over the life of the project, defined as 30 years, added to the operational emissions, and compared to the applicable interim GHG significance threshold tier.

Using CalEEMod, it is estimated that the project would generate approximately 127.01 metric tons of CO_2e during construction of the project. When annualized over the 30-year life of the project, annual emissions would be 4.23 metric tons CO_2e.

Operational Greenhouse Gas Impacts

Long-term operation of the proposed project would generate GHG emissions from area and mobile sources as well as indirect emissions from sources associated with energy consumption. Mobile-source GHG emissions would include project-generated vehicle trips associated with trips to the proposed project. Area-source emissions would be associated with activities such as landscaping and maintenance on the project site, and other sources.

Following guidance from the SCAQMD, GHG emissions were estimated using CalEEMod. Table E shows the calculated GHG emissions for the proposed project. Motor vehicle emissions are the largest source of GHG emissions for the project at approximately 95 percent of the total. Energy use is the next largest category at 4 percent. Water and waste are about 1 percent of the total emissions. Additional calculation details are included in Attachment C.

As discussed above, according to SCAQMD, a project would have less than significant GHG emissions if it would result in operational-related GHG emissions of less than 3,000 metric tons of CO_2e per year. Based on the analysis results, the proposed project would result in approximately 2,584 metric tons of CO_2e per year, which would be well below the SCAQMD's numeric threshold of 3,000 metric tons of CO_2e per year. Therefore, operation of the proposed project would not generate significant GHG emissions that would have a significant effect on the environment.

Consistency with Greenhouse Gas Reduction Plans

As discussed above, the Energy Efficiency and Climate Action Strategy outlines a programmatic approach to review the potential GHG-related impacts associated with new development. As detailed in Table F, the project would be consistent with the Energy Efficiency and Climate Action Strategy and applicable State regulations.

As shown in Table F, the project would be consistent with all applicable GHG reduction strategies of the Energy Efficiency and Climate Action Strategy. Some of the measures are not applicable to the project. Furthermore, the project would be consistent with applicable land use and zoning re-designations, would not conflict with any State and City regulations intended to reduce GHG emissions statewide, and would be consistent with applicable plans and programs designed to reduce GHG emissions. Therefore, the project would have a less than significant impact.

Cumulative Greenhouse Gas Impacts

As climate change impacts are cumulative in nature, no typical single project can result in emissions of such a magnitude that it, in and by itself, would be significant on a project basis. The proposed project has incorporated sustainability design measures in accordance with regulatory requirements as provided throughout the analysis and to reduce the proposed project's potential impact with respect to GHG emissions. As GHG emissions would not exceed the SCAQMD Tier 4 threshold and project design measures will be applied to lower the GHG emissions, the proposed project would result in a less than significant cumulative impact related to GHG emissions. The proposed project's GHG reduction measures make it consistent with AB 32, 2016 RTP/SCS, and the City's CAP. Therefore, the proposed project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the GHG emissions. Given this consistency, it is concluded that the proposed project's impacts are not cumulatively considerable.

MITIGATION MEASURES

No mitigation measures are required.

ATTACHMENTS

- A: Figures

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ATTACHMENT A

FIGURES

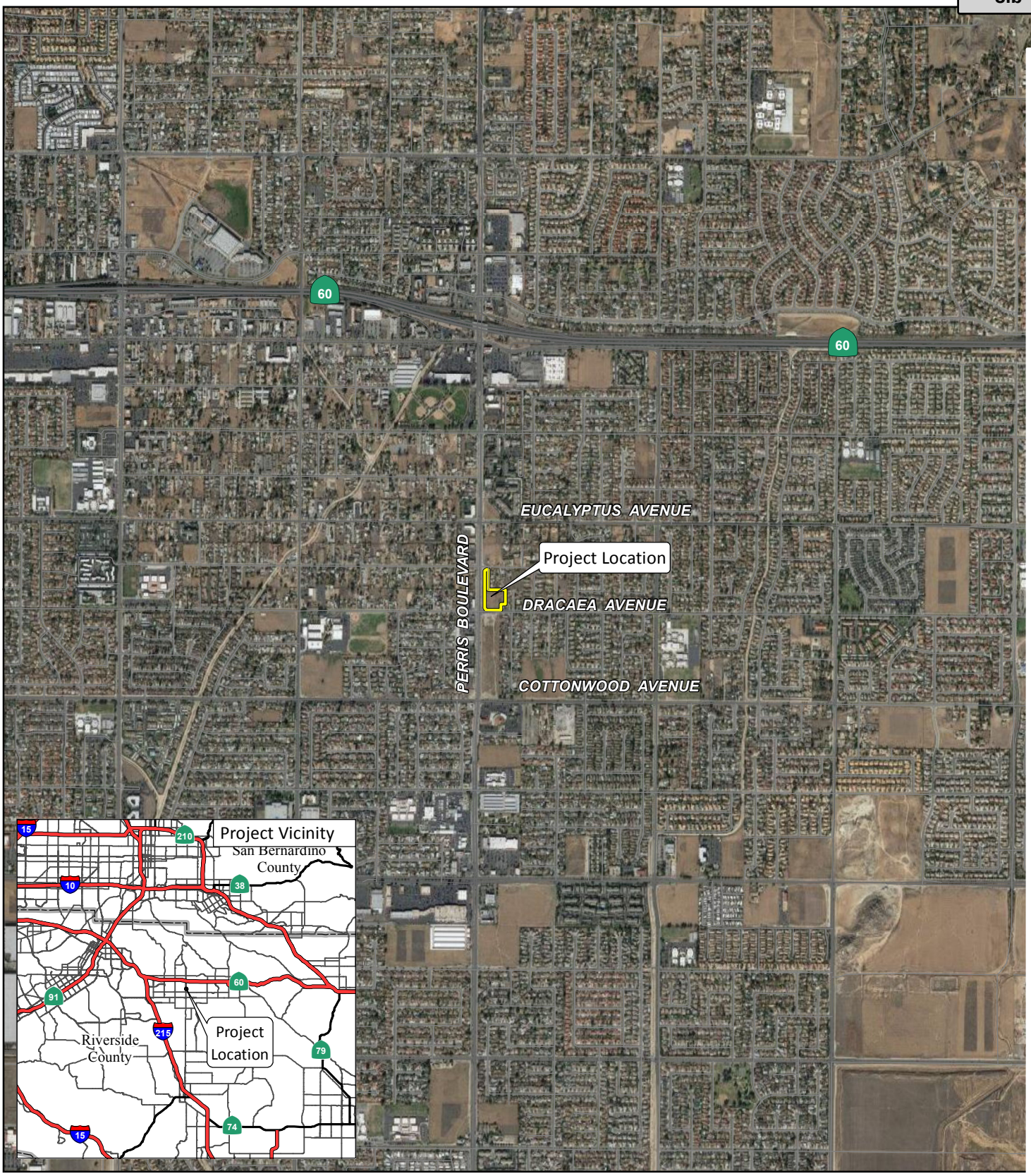

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FIGURE 1

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Perris/Dracaea Commercial Projec

Regional and Project Location

SOURCE: ESRI Streetmap, 2013; Google Earthl, 2018.

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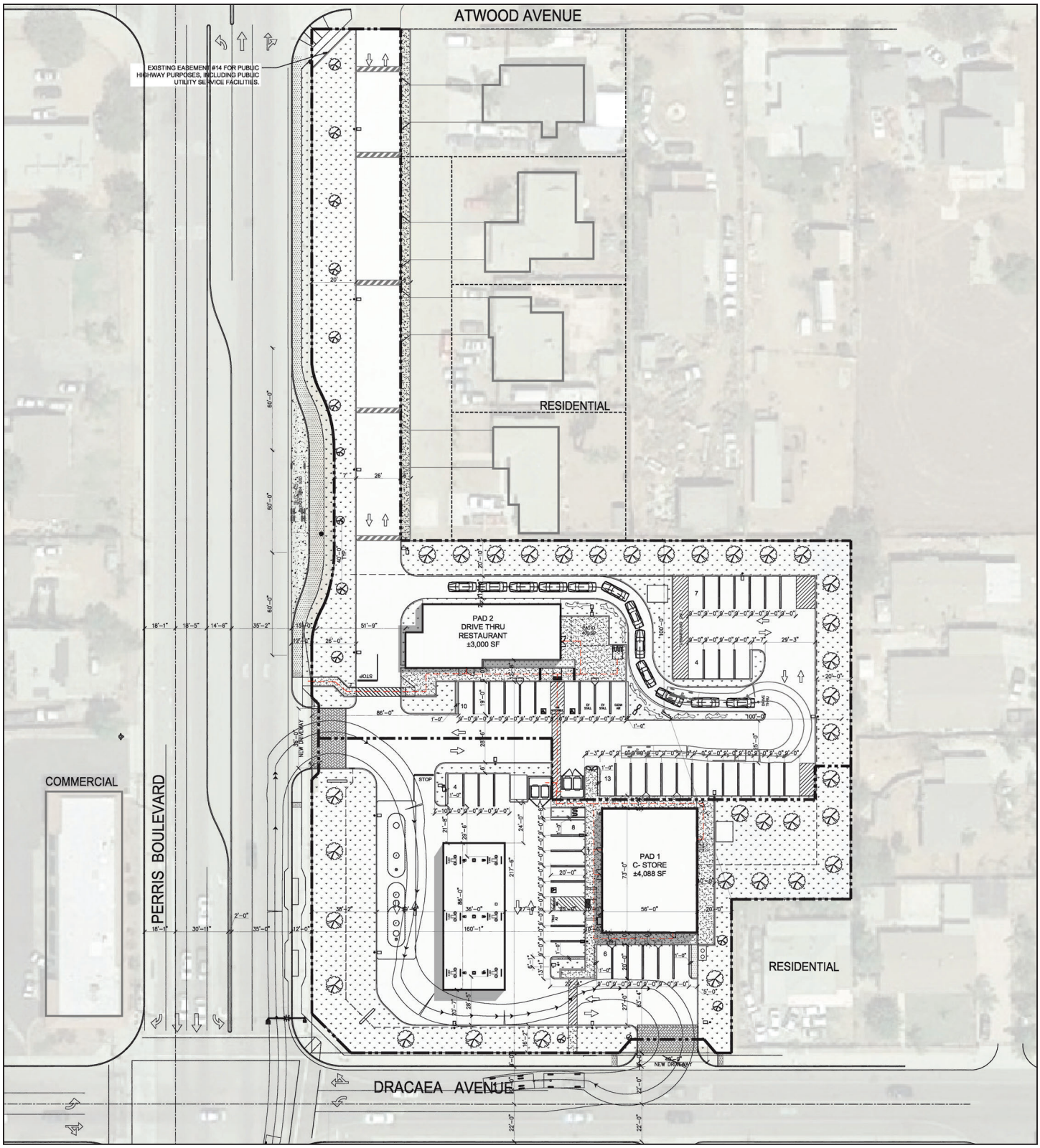

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FIGURE 2

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SOURCE: Cadence Capital Investmtents LLC; June 2020

Commercial Retail Project at Perris Boulevard/Dracaea Avenue

Site Plan

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ATTACHMENT B

TABLES

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Table A: Project Construction Emissions in Pounds Per Day

Project Construction	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Site Preparation	1.70	20.20	11.75	0.03	1.05	0.77
Grading	1.63	24.74	11.27	0.05	2.37	1.12
Building Construction	2.35	17.49	16.87	0.03	1.12	0.98
Paving	2.19	9.42	10.37	0.02	0.31	0.52
Architectural Coating	9.98	1.69	1.91	0.00	0.13	0.12
Maximum (pounds per day)	**9.98**	**24.74**	**16.87**	**0.05**	**2.37**	**1.12**
SCAQMD Threshold	75.00	100.00	550.00	150.00	150.00	55.00
Exceeds?	**No**	**No**	**No**	**No**	**No**	**No**

Source: LSA (April 2020).

Table B: Project Operational Emissions in Pounds Per Day

Source	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Area Sources	0.16	<0.01	<0.01	0	<0.01	<0.01
Energy Sources	0.02	0.22	0.19	<0.01	0.02	0.02
Mobile Sources	6.03	36.81	36.38	0.16	9.67	2.64
Total Emissions	**6.22**	**37.03**	**36.57**	**0.16**	**9.69**	**2.66**
SCAQMD Threshold	55.00	55.00	550.00	150.00	150.00	55.00
Exceeds?	**No**	**No**	**No**	**No**	**No**	**No**

Source: LSA (April 2020).

Table C: Project Localized Construction Emissions in Pounds Per Day

Source	NOx	CO	PM_{10}	$PM_{2.5}$
On-Site Project Emissions	20.2	16.4	1.5	0.9
Localized Significance Threshold	170.0	833.0	7.0	4.0
Exceeds?	**No**	**No**	**No**	**No**

Source: LSA (April 2020).

Table D: Project Localized Operational Emissions in Pounds Per Day

Source	NOx	CO	PM_{10}	$PM_{2.5}$
On-Site Project Emissions	1.8	1.8	0.5	0.1
Localized Significance Threshold	170.0	833.0	2.0	1.0
Exceeds?	**No**	**No**	**No**	**No**

Source: LSA (April 2020).

LSA

Table E: GHG Emissions (Metric Tons Per Year)

Emissions Source	Operational Emissions				
	CO_2	CH_4	N_2O	CO_2e	Percent of Total
Area Source Emissions	<0.01	0	0	<0.01	0.0
Energy Source Emissions	108.41	<0.01	<0.01	108.91	4.2
Mobile Source Emissions	2,443.16	0.18	0	2,447.57	94.80
Waste Source Emissions	7.02	0.41	0	17.38	0.7
Water Source Emissions	5.11	0.03	<0.01	6.20	0.3
Total Operational Emissions				**2,580.07**	**100%**
Amortized Construction Emissions				4.23	—
Total Annual Emissions				**2,584.30**	—
SCAQMD Threshold				**3,000.00**	—
Exceed?				**No**	—

Source: LSA (April 2020).

Table F: Moreno Valley Energy Efficiency and Climate Action Strategy Consistency

Measure/Regulation	Project Consistency
State and Regional Regulations	
Energy	
California Building Energy Efficiency Standards (Title 24, Part 6). Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities).	**Consistent.** The proposed project will comply with the requirements of the 2020 California Building Energy Efficiency Standards (Title 24, Part 6) including measures to incorporate energy-efficient building design features.
Water	
Water Use Efficiency. Reduce per capita water use by 20% by 2020. SB X7-7 is part of a California legislative package passed in 2009 that requires urban retail water suppliers to reduce per-capita water use by 10% from a baseline level by 2015, and to reduce per capita water use by 20% by 2020. Green Accountability Performance (GAP) Goal 16 directly aligns with SB X7-7. In Southern California, energy costs and GHG emissions associated with the transport, treatment, and delivery of water from outlying regions are high. Therefore, the region has extra incentive to reduce water consumption. While this is considered a State measure, it is up to the local water retailers, jurisdictions, and water users to meet these targets.	**Consistent.** The proposed project will comply with the requirements of Title 19 – Article VIII – Chapter 19.570 – Water Efficient Landscaping and Irrigation, including measures to increase water use efficiency. Water efficient irrigation systems and devices and drought-tolerant landscaping will be installed on the project site.
Solid Waste	
Construction and Demolition (C&D) Waste Diversion. Meet mandatory requirement to divert 50% of C&D waste from landfills by 2020 and exceed requirement by diverting 90% of C&D waste from landfills by 2035.	**Consistent.** In compliance with CalGreen requirements, at least 65 percent of all nonhazardous construction waste generated by the proposed project would be recycled and/or salvaged (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard). Furthermore, 100 percent of excavated soil shall be reused or recycled.

LSA

Table F: Moreno Valley Energy Efficiency and Climate Action Strategy Consistency

Measure/Regulation	Project Consistency
Transportation	
Pavley and Low Carbon Fuel Standard (LCFS). The California Air Resources Board identified this measure as a Discrete Early Action Measure. This measure would reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020.	**Consistent.** The project does not involve the manufacture, sale, or purchase of vehicles. However, vehicles that operate within and access the project site will comply with Pavley and Low Carbon Fuel Standard. No feature of the project will interfere with implementation of these requirements and programs.
Moreno Valley Energy Efficiency and CAS Measures	
Transportation	
R2-T1: Land Use Based Trips and VMT Reduction Policies. Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.	**Not Applicable.** This objective is aimed at government agencies, not private developers.
R2-T3: Employment-Based Trip Reductions. Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.	**Consistent.** The project will reduce vehicle miles traveled and emissions associated with by implementing the pedestrian and bicycle connections to the surrounding areas and implementing a voluntary trip reduction programs in consistent with the City's General Plan.
Energy	
R2-E1: New Construction Residential Energy Efficiency Requirements. Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards.	**Not Applicable.** This measure applies to residential projects.
R2-E2: New Construction Residential Renewable Energy. Facilitate the use of renewable energy (such as solar (photovoltaic) panels or small wind turbines) for new residential developments. An alternative approach would be the purchase of renewable energy resources off site.	**Not Applicable.** This measure applies to residential projects.
R2-E5: New Construction Commercial Energy Efficiency Requirements. Require energy efficient design for all new commercial buildings to be 10% beyond the 2008 Title 24 standards (which were in effect at the time the CAP was adopted).	**Consistent.** 2013 Title 24 requirements would achieve greater reduction than envisioned by the City's Climate Action Strategy. The project would comply with applicable energy efficiency requirements detailed in the Green Building Standards Code (Title 24, California Code of Regulations). Further, the project would be required to comply with any adopted Municipal Code requirements set forth by the City of Moreno Valley.
R3-E1: Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining. Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy-efficient projects.	**Not Applicable.** This policy is not applicable on a project level.
R3-L2: Heat Island Plan. Develop measures that address "heat islands." Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking	**Consistent.** The project will comply with the City of Moreno Valley's landscaping requirements.

LSA

Table F: Moreno Valley Energy Efficiency and Climate Action Strategy Consistency

Measure/Regulation	Project Consistency
Water	
R2-W1: Water Use Reduction Initiative. Consider adopting a per capita water use reduction goal, which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.	**Consistent.** California Green Building Standards Code, Chapter 5, Division 5.3, Section 5.303.2 requires that indoor water use be reduced by 20 percent. Section 5.304.3 requires irrigation controllers and sensors
R3-W1: Water Efficiency Training and Education. Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.	**Not Applicable.** This policy is not applicable at a project level.
Solid Waste	
R2-S1: City Diversion Program. For solid waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.	**Consistent.** The project will comply with the City of Moreno Valley's citywide goal of solid waste reduction. Additionally the project will be compliant with the City of Moreno Valley's Municipal Code 8.80.030 by implementing a Waste Management Plan.

Source: LSA (April 2020).

LSA

ATTACHMENT C

CALEEMOD OUTPUT FILES

Dracaea/Perris Commercial Project

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	52.00	Space	2.14	20,800.00	0
Fast Food Restaurant with Drive Thru	3.00	1000sqft	0.07	3,000.00	0
Convenience Market With Gas Pumps	12.00	Pump	0.09	4,088.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project site area is 2.3 acres.

Construction Phase -

Grading - Project site is approx. 2.30 acres. Assume fuel tanks installation requires soil excavation of approx. 700 cy to be exported.

Vehicle Trips - Trip generation rates without pass-by trips were obtained from Table 5-A of the Traffic Impact Analysis report (LSA 2020)

Construction Off-road Equipment Mitigation - Fugitive dust controled with on-site watering at least 3 times daily - SCAQMD Rule 403.

Area Mitigation -

Dracaea/Perris Commercial Project - Riverside-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	3,544.00	2,347.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	10,632.00	7,041.00
tblArchitecturalCoating	ConstArea_Parking	1,248.00	1,104.00
tblAreaCoating	Area_Nonresidential_Exterior	3544	2347
tblAreaCoating	Area_Nonresidential_Interior	10632	7041
tblAreaCoating	Area_Parking	1248	1104
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	220.00	100.00
tblConstructionPhase	NumDays	6.00	2.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	3.00	1.00
tblGrading	AcresOfGrading	1.00	2.30
tblGrading	AcresOfGrading	1.50	0.50
tblGrading	MaterialExported	0.00	700.00
tblLandUse	LandUseSquareFeet	1,694.10	4,088.00
tblLandUse	LotAcreage	0.47	2.14
tblLandUse	LotAcreage	0.04	0.09
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00

tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	5.00	4.00
tblTripsAndVMT	WorkerTripNumber	8.00	5.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	11.00	10.00
tblTripsAndVMT	WorkerTripNumber	20.00	18.00
tblVehicleTrips	PB_TP	65.00	59.00
tblVehicleTrips	PR_TP	14.00	20.00
tblVehicleTrips	WD_TR	542.60	205.36
tblVehicleTrips	WD_TR	496.12	820.38

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	9.9782	24.7392	16.8084	0.0523	2.8982	0.9823	3.6019	0.7928	0.9404	1.4574	0.0000	5,354.0319	5,354.0319	0.7808	0.0000	5,370.5084
Maximum	**9.9782**	**24.7392**	**16.8084**	**0.0523**	**2.8982**	**0.9823**	**3.6019**	**0.7928**	**0.9404**	**1.4574**	**0.0000**	**5,354.0319**	**5,354.0319**	**0.7808**	**0.0000**	**5,370.5084**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	9.9782	24.7392	16.8084	0.0523	1.6680	0.9823	2.3718	0.4560	0.9404	1.1206	0.0000	5,354.0319	5,354.0319	0.7808	0.0000	5,370.5084
Maximum	**9.9782**	**24.7392**	**16.8084**	**0.0523**	**1.6680**	**0.9823**	**2.3718**	**0.4560**	**0.9404**	**1.1206**	**0.0000**	**5,354.0319**	**5,354.0319**	**0.7808**	**0.0000**	**5,370.5084**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**42.45**	**0.00**	**34.15**	**42.49**	**0.00**	**23.11**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1617	6.0000e-005	6.8300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0147	0.0147	4.0000e-005		0.0156
Energy	0.0245	0.2228	0.1871	1.3400e-003		0.0169	0.0169		0.0169	0.0169		267.3313	267.3313	5.1200e-003	4.9000e-003	268.9199
Mobile	4.8881	36.0464	34.8420	0.1460	9.5850	0.0859	9.6709	2.5639	0.0799	2.6439		15,016.8251	15,016.8251	1.1788		15,046.2941
Total	**5.0743**	**36.2693**	**35.0359**	**0.1473**	**9.5850**	**0.1029**	**9.6879**	**2.5639**	**0.0969**	**2.6608**		**15,284.1710**	**15,284.1710**	**1.1839**	**4.9000e-003**	**15,315.2296**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1617	6.0000e-005	6.8300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0147	0.0147	4.0000e-005		0.0156
Energy	0.0245	0.2228	0.1871	1.3400e-003		0.0169	0.0169		0.0169	0.0169		267.3313	267.3313	5.1200e-003	4.9000e-003	268.9199
Mobile	4.8881	36.0464	34.8420	0.1460	9.5850	0.0859	9.6709	2.5639	0.0799	2.6439		15,016.8251	15,016.8251	1.1788		15,046.2941
Total	**5.0743**	**36.2693**	**35.0359**	**0.1473**	**9.5850**	**0.1029**	**9.6879**	**2.5639**	**0.0969**	**2.6608**		**15,284.1710**	**15,284.1710**	**1.1839**	**4.9000e-003**	**15,315.2296**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2020	6/1/2020	5	1	
2	Grading	Grading	6/2/2020	6/3/2020	5	2	
3	Building Construction	Building Construction	6/4/2020	10/21/2020	5	100	
4	Paving	Paving	10/22/2020	10/28/2020	5	5	
5	Architectural Coating	Architectural Coating	10/29/2020	11/4/2020	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 2.3

Acres of Paving: 2.14

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,041; Non-Residential Outdoor: 2,347; Striped Parking Area: 1,104 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	10.00	0.00	88.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.6782	20.1828	11.5528	0.0249		0.7937	0.7937		0.7302	0.7302		2,410.5023	2,410.5023	0.7796		2,429.9924
Total	**1.6782**	**20.1828**	**11.5528**	**0.0249**	**0.5303**	**0.7937**	**1.3240**	**0.0573**	**0.7302**	**0.7875**		**2,410.5023**	**2,410.5023**	**0.7796**		**2,429.9924**

3.2 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0249	0.0156	0.1631	5.0000e-004	0.0559	3.4000e-004	0.0562	0.0148	3.1000e-004	0.0151		49.4118	49.4118	1.2300e-003		49.4425
Total	**0.0249**	**0.0156**	**0.1631**	**5.0000e-004**	**0.0559**	**3.4000e-004**	**0.0562**	**0.0148**	**3.1000e-004**	**0.0151**		**49.4118**	**49.4118**	**1.2300e-003**		**49.4425**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2068	0.0000	0.2068	0.0223	0.0000	0.0223			0.0000			0.0000
Off-Road	1.6782	20.1828	11.5528	0.0249		0.7937	0.7937		0.7302	0.7302	0.0000	2,410.5023	2,410.5023	0.7796		2,429.9924
Total	**1.6782**	**20.1828**	**11.5528**	**0.0249**	**0.2068**	**0.7937**	**1.0005**	**0.0223**	**0.7302**	**0.7525**	**0.0000**	**2,410.5023**	**2,410.5023**	**0.7796**		**2,429.9924**

3.2 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0249	0.0156	0.1631	5.0000e-004	0.0559	3.4000e-004	0.0562	0.0148	3.1000e-004	0.0151		49.4118	49.4118	1.2300e-003		49.4425
Total	**0.0249**	**0.0156**	**0.1631**	**5.0000e-004**	**0.0559**	**3.4000e-004**	**0.0562**	**0.0148**	**3.1000e-004**	**0.0151**		**49.4118**	**49.4118**	**1.2300e-003**		**49.4425**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0167	0.0000	2.0167	0.5522	0.0000	0.5522			0.0000			0.0000
Off-Road	1.3432	14.1984	9.4370	0.0186		0.6694	0.6694		0.6317	0.6317		1,789.9539	1,789.9539	0.4248		1,800.5732
Total	**1.3432**	**14.1984**	**9.4370**	**0.0186**	**2.0167**	**0.6694**	**2.6861**	**0.5522**	**0.6317**	**1.1839**		**1,789.9539**	**1,789.9539**	**0.4248**		**1,800.5732**

3.3 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2380	10.5097	1.5056	0.0327	0.7697	0.0337	0.8034	0.2110	0.0322	0.2432		3,465.2544	3,465.2544	0.2318		3,471.0503
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0498	0.0311	0.3262	9.9000e-004	0.1118	6.8000e-004	0.1125	0.0296	6.2000e-004	0.0303		98.8236	98.8236	2.4500e-003		98.8849
Total	**0.2879**	**10.5408**	**1.8318**	**0.0337**	**0.8815**	**0.0344**	**0.9158**	**0.2406**	**0.0328**	**0.2735**		**3,564.0780**	**3,564.0780**	**0.2343**		**3,569.9353**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7865	0.0000	0.7865	0.2154	0.0000	0.2154			0.0000			0.0000
Off-Road	1.3432	14.1984	9.4370	0.0186		0.6694	0.6694		0.6317	0.6317	0.0000	1,789.9539	1,789.9539	0.4248		1,800.5732
Total	**1.3432**	**14.1984**	**9.4370**	**0.0186**	**0.7865**	**0.6694**	**1.4559**	**0.2154**	**0.6317**	**0.8471**	**0.0000**	**1,789.9539**	**1,789.9539**	**0.4248**		**1,800.5732**

3.3 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2380	10.5097	1.5056	0.0327	0.7697	0.0337	0.8034	0.2110	0.0322	0.2432		3,465.2544	3,465.2544	0.2318		3,471.0503
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0498	0.0311	0.3262	9.9000e-004	0.1118	6.8000e-004	0.1125	0.0296	6.2000e-004	0.0303		98.8236	98.8236	2.4500e-003		98.8849
Total	**0.2879**	**10.5408**	**1.8318**	**0.0337**	**0.8815**	**0.0344**	**0.9158**	**0.2406**	**0.0328**	**0.2735**		**3,564.0780**	**3,564.0780**	**0.2343**		**3,569.9353**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2870	17.0449	16.3941	0.0256		0.9793	0.9793		0.9375	0.9375		2,348.4458	2,348.4458	0.4838		2,360.5411
Total	**2.2870**	**17.0449**	**16.3941**	**0.0256**		**0.9793**	**0.9793**		**0.9375**	**0.9375**		**2,348.4458**	**2,348.4458**	**0.4838**		**2,360.5411**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0118	0.4094	0.0882	1.0100e-003	0.0256	2.3700e-003	0.0280	7.3700e-003	2.2700e-003	9.6400e-003		106.0171	106.0171	9.1900e-003		106.2470
Worker	0.0498	0.0311	0.3262	9.9000e-004	0.1118	6.8000e-004	0.1125	0.0296	6.2000e-004	0.0303		98.8236	98.8236	2.4500e-003		98.8849
Total	**0.0616**	**0.4405**	**0.4143**	**2.0000e-003**	**0.1374**	**3.0500e-003**	**0.1404**	**0.0370**	**2.8900e-003**	**0.0399**		**204.8407**	**204.8407**	**0.0116**		**205.1319**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2870	17.0449	16.3941	0.0256		0.9793	0.9793		0.9375	0.9375	0.0000	2,348.4458	2,348.4458	0.4838		2,360.5411
Total	**2.2870**	**17.0449**	**16.3941**	**0.0256**		**0.9793**	**0.9793**		**0.9375**	**0.9375**	**0.0000**	**2,348.4458**	**2,348.4458**	**0.4838**		**2,360.5411**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0118	0.4094	0.0882	1.0100e-003	0.0256	2.3700e-003	0.0280	7.3700e-003	2.2700e-003	9.6400e-003		106.0171	106.0171	9.1900e-003		106.2470
Worker	0.0498	0.0311	0.3262	9.9000e-004	0.1118	6.8000e-004	0.1125	0.0296	6.2000e-004	0.0303		98.8236	98.8236	2.4500e-003		98.8849
Total	**0.0616**	**0.4405**	**0.4143**	**2.0000e-003**	**0.1374**	**3.0500e-003**	**0.1404**	**0.0370**	**2.8900e-003**	**0.0399**		**204.8407**	**204.8407**	**0.0116**		**205.1319**

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9790	9.3679	9.6472	0.0153		0.5022	0.5022		0.4654	0.4654		1,429.9208	1,429.9208	0.4292		1,440.6504
Paving	1.1214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1004**	**9.3679**	**9.6472**	**0.0153**		**0.5022**	**0.5022**		**0.4654**	**0.4654**		**1,429.9208**	**1,429.9208**	**0.4292**		**1,440.6504**

3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0897	0.0560	0.5871	1.7900e-003	0.2012	1.2200e-003	0.2024	0.0534	1.1200e-003	0.0545		177.8824	177.8824	4.4200e-003		177.9929
Total	**0.0897**	**0.0560**	**0.5871**	**1.7900e-003**	**0.2012**	**1.2200e-003**	**0.2024**	**0.0534**	**1.1200e-003**	**0.0545**		**177.8824**	**177.8824**	**4.4200e-003**		**177.9929**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9790	9.3679	9.6472	0.0153		0.5022	0.5022		0.4654	0.4654	0.0000	1,429.9208	1,429.9208	0.4292		1,440.6504
Paving	1.1214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1004**	**9.3679**	**9.6472**	**0.0153**		**0.5022**	**0.5022**		**0.4654**	**0.4654**	**0.0000**	**1,429.9208**	**1,429.9208**	**0.4292**		**1,440.6504**

3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0897	0.0560	0.5871	1.7900e-003	0.2012	1.2200e-003	0.2024	0.0534	1.1200e-003	0.0545		177.8824	177.8824	4.4200e-003		177.9929
Total	**0.0897**	**0.0560**	**0.5871**	**1.7900e-003**	**0.2012**	**1.2200e-003**	**0.2024**	**0.0534**	**1.1200e-003**	**0.0545**		**177.8824**	**177.8824**	**4.4200e-003**		**177.9929**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.7261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**9.9683**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	9.9700e-003	6.2300e-003	0.0652	2.0000e-004	0.0224	1.4000e-004	0.0225	5.9300e-003	1.2000e-004	6.0500e-003		19.7647	19.7647	4.9000e-004		19.7770
Total	**9.9700e-003**	**6.2300e-003**	**0.0652**	**2.0000e-004**	**0.0224**	**1.4000e-004**	**0.0225**	**5.9300e-003**	**1.2000e-004**	**6.0500e-003**		**19.7647**	**19.7647**	**4.9000e-004**		**19.7770**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.7261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**9.9683**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	9.9700e-003	6.2300e-003	0.0652	2.0000e-004	0.0224	1.4000e-004	0.0225	5.9300e-003	1.2000e-004	6.0500e-003		19.7647	19.7647	4.9000e-004		19.7770
Total	**9.9700e-003**	**6.2300e-003**	**0.0652**	**2.0000e-004**	**0.0224**	**1.4000e-004**	**0.0225**	**5.9300e-003**	**1.2000e-004**	**6.0500e-003**		**19.7647**	**19.7647**	**4.9000e-004**		**19.7770**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.8881	36.0464	34.8420	0.1460	9.5850	0.0859	9.6709	2.5639	0.0799	2.6439		15,016.8251	15,016.8251	1.1788		15,046.2941
Unmitigated	4.8881	36.0464	34.8420	0.1460	9.5850	0.0859	9.6709	2.5639	0.0799	2.6439		15,016.8251	15,016.8251	1.1788		15,046.2941

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	2,464.32	2,453.64	2002.56	1,853,599	1,853,599
Fast Food Restaurant with Drive Thru	2,461.14	2,166.09	1628.16	2,420,484	2,420,484
Parking Lot	0.00	0.00	0.00		
Total	4,925.46	4,619.73	3,630.72	4,274,083	4,274,083

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	16.60	8.40	6.90	0.80	80.20	19.00	20	21	59
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.551648	0.035769	0.187848	0.110184	0.013450	0.004660	0.017552	0.070120	0.001413	0.001134	0.004476	0.000905	0.000840
Fast Food Restaurant with Drive Thru	0.551648	0.035769	0.187848	0.110184	0.013450	0.004660	0.017552	0.070120	0.001413	0.001134	0.004476	0.000905	0.000840
Parking Lot	0.551648	0.035769	0.187848	0.110184	0.013450	0.004660	0.017552	0.070120	0.001413	0.001134	0.004476	0.000905	0.000840

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0245	0.2228	0.1871	1.3400e-003		0.0169	0.0169		0.0169	0.0169		267.3313	267.3313	5.1200e-003	4.9000e-003	268.9199
NaturalGas Unmitigated	0.0245	0.2228	0.1871	1.3400e-003		0.0169	0.0169		0.0169	0.0169		267.3313	267.3313	5.1200e-003	4.9000e-003	268.9199

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market With Gas Pumps	24.864	2.7000e-004	2.4400e-003	2.0500e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		2.9252	2.9252	6.0000e-005	5.0000e-005	2.9426
Fast Food Restaurant with Drive Thru	2247.45	0.0242	0.2203	0.1851	1.3200e-003		0.0168	0.0168		0.0168	0.0168		264.4061	264.4061	5.0700e-003	4.8500e-003	265.9774
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0245**	**0.2228**	**0.1871**	**1.3300e-003**		**0.0169**	**0.0169**		**0.0169**	**0.0169**		**267.3313**	**267.3313**	**5.1300e-003**	**4.9000e-003**	**268.9199**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market With Gas Pumps	0.024864	2.7000e-004	2.4400e-003	2.0500e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		2.9252	2.9252	6.0000e-005	5.0000e-005	2.9426
Fast Food Restaurant with Drive Thru	2.24745	0.0242	0.2203	0.1851	1.3200e-003		0.0168	0.0168		0.0168	0.0168		264.4061	264.4061	5.0700e-003	4.8500e-003	265.9774
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0245**	**0.2228**	**0.1871**	**1.3300e-003**		**0.0169**	**0.0169**		**0.0169**	**0.0169**		**267.3313**	**267.3313**	**5.1300e-003**	**4.9000e-003**	**268.9199**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1617	6.0000e-005	6.8300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0147	0.0147	4.0000e-005		0.0156
Unmitigated	0.1617	6.0000e-005	6.8300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0147	0.0147	4.0000e-005		0.0156

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0133					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1477					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.3000e-004	6.0000e-005	6.8300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0147	0.0147	4.0000e-005		0.0156
Total	**0.1617**	**6.0000e-005**	**6.8300e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0147**	**0.0147**	**4.0000e-005**		**0.0156**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0133					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1477					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.3000e-004	6.0000e-005	6.8300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0147	0.0147	4.0000e-005		0.0156
Total	**0.1617**	**6.0000e-005**	**6.8300e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0147**	**0.0147**	**4.0000e-005**		**0.0156**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Dracaea/Perris Commercial Project

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	52.00	Space	2.14	20,800.00	0
Fast Food Restaurant with Drive Thru	3.00	1000sqft	0.07	3,000.00	0
Convenience Market With Gas Pumps	12.00	Pump	0.09	4,088.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project site area is 2.3 acres.

Construction Phase -

Grading - Project site is approx. 2.30 acres. Assume fuel tanks installation requires soil excavation of approx. 700 cy to be exported.

Vehicle Trips - Trip generation rates without pass-by trips were obtained from Table 5-A of the Traffic Impact Analysis report (LSA 2020)

Construction Off-road Equipment Mitigation - Fugitive dust controled with on-site watering at least 3 times daily - SCAQMD Rule 403.

Area Mitigation -

Dracaea/Perris Commercial Project - Riverside-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	3,544.00	2,347.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	10,632.00	7,041.00
tblArchitecturalCoating	ConstArea_Parking	1,248.00	1,104.00
tblAreaCoating	Area_Nonresidential_Exterior	3544	2347
tblAreaCoating	Area_Nonresidential_Interior	10632	7041
tblAreaCoating	Area_Parking	1248	1104
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	220.00	100.00
tblConstructionPhase	NumDays	6.00	2.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	3.00	1.00
tblGrading	AcresOfGrading	1.00	2.30
tblGrading	AcresOfGrading	1.50	0.50
tblGrading	MaterialExported	0.00	700.00
tblLandUse	LandUseSquareFeet	1,694.10	4,088.00
tblLandUse	LotAcreage	0.47	2.14
tblLandUse	LotAcreage	0.04	0.09
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00

tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	5.00	4.00
tblTripsAndVMT	WorkerTripNumber	8.00	5.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	11.00	10.00
tblTripsAndVMT	WorkerTripNumber	20.00	18.00
tblVehicleTrips	PB_TP	65.00	59.00
tblVehicleTrips	PR_TP	14.00	20.00
tblVehicleTrips	WD_TR	542.60	205.36
tblVehicleTrips	WD_TR	496.12	820.38

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	9.9784	24.6471	16.8726	0.0532	2.8982	0.9823	3.6015	0.7928	0.9404	1.4569	0.0000	5,454.2893	5,454.2893	0.7810	0.0000	5,470.2743
Maximum	**9.9784**	**24.6471**	**16.8726**	**0.0532**	**2.8982**	**0.9823**	**3.6015**	**0.7928**	**0.9404**	**1.4569**	**0.0000**	**5,454.2893**	**5,454.2893**	**0.7810**	**0.0000**	**5,470.2743**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	9.9784	24.6471	16.8726	0.0532	1.6680	0.9823	2.3713	0.4560	0.9404	1.1201	0.0000	5,454.2893	5,454.2893	0.7810	0.0000	5,470.2743
Maximum	**9.9784**	**24.6471**	**16.8726**	**0.0532**	**1.6680**	**0.9823**	**2.3713**	**0.4560**	**0.9404**	**1.1201**	**0.0000**	**5,454.2893**	**5,454.2893**	**0.7810**	**0.0000**	**5,470.2743**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**42.45**	**0.00**	**34.16**	**42.49**	**0.00**	**23.12**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1617	6.0000e-005	6.8300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0147	0.0147	4.0000e-005		0.0156
Energy	0.0245	0.2228	0.1871	1.3400e-003		0.0169	0.0169		0.0169	0.0169		267.3313	267.3313	5.1200e-003	4.9000e-003	268.9199
Mobile	6.0288	36.8075	36.3798	0.1597	9.5850	0.0845	9.6695	2.5639	0.0786	2.6425		16,427.5172	16,427.5172	1.0851		16,454.6436
Total	**6.2150**	**37.0303**	**36.5737**	**0.1611**	**9.5850**	**0.1015**	**9.6865**	**2.5639**	**0.0956**	**2.6595**		**16,694.8631**	**16,694.8631**	**1.0902**	**4.9000e-003**	**16,723.5792**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1617	6.0000e-005	6.8300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0147	0.0147	4.0000e-005		0.0156
Energy	0.0245	0.2228	0.1871	1.3400e-003		0.0169	0.0169		0.0169	0.0169		267.3313	267.3313	5.1200e-003	4.9000e-003	268.9199
Mobile	6.0288	36.8075	36.3798	0.1597	9.5850	0.0845	9.6695	2.5639	0.0786	2.6425		16,427.5172	16,427.5172	1.0851		16,454.6436
Total	**6.2150**	**37.0303**	**36.5737**	**0.1611**	**9.5850**	**0.1015**	**9.6865**	**2.5639**	**0.0956**	**2.6595**		**16,694.8631**	**16,694.8631**	**1.0902**	**4.9000e-003**	**16,723.5792**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2020	6/1/2020	5	1	
2	Grading	Grading	6/2/2020	6/3/2020	5	2	
3	Building Construction	Building Construction	6/4/2020	10/21/2020	5	100	
4	Paving	Paving	10/22/2020	10/28/2020	5	5	
5	Architectural Coating	Architectural Coating	10/29/2020	11/4/2020	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 2.3

Acres of Paving: 2.14

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,041; Non-Residential Outdoor: 2,347; Striped Parking Area: 1,104 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	10.00	0.00	88.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.6782	20.1828	11.5528	0.0249		0.7937	0.7937		0.7302	0.7302		2,410.5023	2,410.5023	0.7796		2,429.9924
Total	**1.6782**	**20.1828**	**11.5528**	**0.0249**	**0.5303**	**0.7937**	**1.3240**	**0.0573**	**0.7302**	**0.7875**		**2,410.5023**	**2,410.5023**	**0.7796**		**2,429.9924**

3.2 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0254	0.0151	0.2016	5.5000e-004	0.0559	3.4000e-004	0.0562	0.0148	3.1000e-004	0.0151		55.0797	55.0797	1.4100e-003		55.1150
Total	**0.0254**	**0.0151**	**0.2016**	**5.5000e-004**	**0.0559**	**3.4000e-004**	**0.0562**	**0.0148**	**3.1000e-004**	**0.0151**		**55.0797**	**55.0797**	**1.4100e-003**		**55.1150**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2068	0.0000	0.2068	0.0223	0.0000	0.0223			0.0000			0.0000
Off-Road	1.6782	20.1828	11.5528	0.0249		0.7937	0.7937		0.7302	0.7302	0.0000	2,410.5023	2,410.5023	0.7796		2,429.9924
Total	**1.6782**	**20.1828**	**11.5528**	**0.0249**	**0.2068**	**0.7937**	**1.0005**	**0.0223**	**0.7302**	**0.7525**	**0.0000**	**2,410.5023**	**2,410.5023**	**0.7796**		**2,429.9924**

3.2 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0254	0.0151	0.2016	5.5000e-004	0.0559	3.4000e-004	0.0562	0.0148	3.1000e-004	0.0151		55.0797	55.0797	1.4100e-003		55.1150
Total	**0.0254**	**0.0151**	**0.2016**	**5.5000e-004**	**0.0559**	**3.4000e-004**	**0.0562**	**0.0148**	**3.1000e-004**	**0.0151**		**55.0797**	**55.0797**	**1.4100e-003**		**55.1150**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0167	0.0000	2.0167	0.5522	0.0000	0.5522			0.0000			0.0000
Off-Road	1.3432	14.1984	9.4370	0.0186		0.6694	0.6694		0.6317	0.6317		1,789.9539	1,789.9539	0.4248		1,800.5732
Total	**1.3432**	**14.1984**	**9.4370**	**0.0186**	**2.0167**	**0.6694**	**2.6861**	**0.5522**	**0.6317**	**1.1839**		**1,789.9539**	**1,789.9539**	**0.4248**		**1,800.5732**

3.3 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2263	10.4186	1.2855	0.0335	0.7697	0.0332	0.8029	0.2110	0.0318	0.2428		3,554.1760	3,554.1760	0.2118		3,559.4711
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0509	0.0301	0.4032	1.1100e-003	0.1118	6.8000e-004	0.1125	0.0296	6.2000e-004	0.0303		110.1595	110.1595	2.8200e-003		110.2301
Total	**0.2772**	**10.4487**	**1.6887**	**0.0346**	**0.8815**	**0.0339**	**0.9154**	**0.2406**	**0.0324**	**0.2730**		**3,664.3354**	**3,664.3354**	**0.2146**		**3,669.7012**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7865	0.0000	0.7865	0.2154	0.0000	0.2154			0.0000			0.0000
Off-Road	1.3432	14.1984	9.4370	0.0186		0.6694	0.6694		0.6317	0.6317	0.0000	1,789.9539	1,789.9539	0.4248		1,800.5732
Total	**1.3432**	**14.1984**	**9.4370**	**0.0186**	**0.7865**	**0.6694**	**1.4559**	**0.2154**	**0.6317**	**0.8471**	**0.0000**	**1,789.9539**	**1,789.9539**	**0.4248**		**1,800.5732**

3.3 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2263	10.4186	1.2855	0.0335	0.7697	0.0332	0.8029	0.2110	0.0318	0.2428		3,554.1760	3,554.1760	0.2118		3,559.4711
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0509	0.0301	0.4032	1.1100e-003	0.1118	6.8000e-004	0.1125	0.0296	6.2000e-004	0.0303		110.1595	110.1595	2.8200e-003		110.2301
Total	**0.2772**	**10.4487**	**1.6887**	**0.0346**	**0.8815**	**0.0339**	**0.9154**	**0.2406**	**0.0324**	**0.2730**		**3,664.3354**	**3,664.3354**	**0.2146**		**3,669.7012**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2870	17.0449	16.3941	0.0256		0.9793	0.9793		0.9375	0.9375		2,348.4458	2,348.4458	0.4838		2,360.5411
Total	**2.2870**	**17.0449**	**16.3941**	**0.0256**		**0.9793**	**0.9793**		**0.9375**	**0.9375**		**2,348.4458**	**2,348.4458**	**0.4838**		**2,360.5411**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0112	0.4116	0.0753	1.0400e-003	0.0256	2.3400e-003	0.0280	7.3700e-003	2.2400e-003	9.6100e-003		110.1564	110.1564	8.2600e-003		110.3629
Worker	0.0509	0.0301	0.4032	1.1100e-003	0.1118	6.8000e-004	0.1125	0.0296	6.2000e-004	0.0303		110.1595	110.1595	2.8200e-003		110.2301
Total	**0.0620**	**0.4417**	**0.4785**	**2.1500e-003**	**0.1374**	**3.0200e-003**	**0.1404**	**0.0370**	**2.8600e-003**	**0.0399**		**220.3158**	**220.3158**	**0.0111**		**220.5930**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2870	17.0449	16.3941	0.0256		0.9793	0.9793		0.9375	0.9375	0.0000	2,348.4458	2,348.4458	0.4838		2,360.5411
Total	**2.2870**	**17.0449**	**16.3941**	**0.0256**		**0.9793**	**0.9793**		**0.9375**	**0.9375**	**0.0000**	**2,348.4458**	**2,348.4458**	**0.4838**		**2,360.5411**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0112	0.4116	0.0753	1.0400e-003	0.0256	2.3400e-003	0.0280	7.3700e-003	2.2400e-003	9.6100e-003		110.1564	110.1564	8.2600e-003		110.3629
Worker	0.0509	0.0301	0.4032	1.1100e-003	0.1118	6.8000e-004	0.1125	0.0296	6.2000e-004	0.0303		110.1595	110.1595	2.8200e-003		110.2301
Total	**0.0620**	**0.4417**	**0.4785**	**2.1500e-003**	**0.1374**	**3.0200e-003**	**0.1404**	**0.0370**	**2.8600e-003**	**0.0399**		**220.3158**	**220.3158**	**0.0111**		**220.5930**

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9790	9.3679	9.6472	0.0153		0.5022	0.5022		0.4654	0.4654		1,429.9208	1,429.9208	0.4292		1,440.6504
Paving	1.1214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1004**	**9.3679**	**9.6472**	**0.0153**		**0.5022**	**0.5022**		**0.4654**	**0.4654**		**1,429.9208**	**1,429.9208**	**0.4292**		**1,440.6504**

3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0916	0.0542	0.7258	1.9900e-003	0.2012	1.2200e-003	0.2024	0.0534	1.1200e-003	0.0545		198.2870	198.2870	5.0800e-003		198.4141
Total	**0.0916**	**0.0542**	**0.7258**	**1.9900e-003**	**0.2012**	**1.2200e-003**	**0.2024**	**0.0534**	**1.1200e-003**	**0.0545**		**198.2870**	**198.2870**	**5.0800e-003**		**198.4141**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9790	9.3679	9.6472	0.0153		0.5022	0.5022		0.4654	0.4654	0.0000	1,429.9208	1,429.9208	0.4292		1,440.6504
Paving	1.1214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1004**	**9.3679**	**9.6472**	**0.0153**		**0.5022**	**0.5022**		**0.4654**	**0.4654**	**0.0000**	**1,429.9208**	**1,429.9208**	**0.4292**		**1,440.6504**

3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0916	0.0542	0.7258	1.9900e-003	0.2012	1.2200e-003	0.2024	0.0534	1.1200e-003	0.0545		198.2870	198.2870	5.0800e-003		198.4141
Total	**0.0916**	**0.0542**	**0.7258**	**1.9900e-003**	**0.2012**	**1.2200e-003**	**0.2024**	**0.0534**	**1.1200e-003**	**0.0545**		**198.2870**	**198.2870**	**5.0800e-003**		**198.4141**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.7261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**9.9683**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0102	6.0200e-003	0.0806	2.2000e-004	0.0224	1.4000e-004	0.0225	5.9300e-003	1.2000e-004	6.0500e-003		22.0319	22.0319	5.6000e-004		22.0460
Total	**0.0102**	**6.0200e-003**	**0.0806**	**2.2000e-004**	**0.0224**	**1.4000e-004**	**0.0225**	**5.9300e-003**	**1.2000e-004**	**6.0500e-003**		**22.0319**	**22.0319**	**5.6000e-004**		**22.0460**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.7261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**9.9683**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0102	6.0200e-003	0.0806	2.2000e-004	0.0224	1.4000e-004	0.0225	5.9300e-003	1.2000e-004	6.0500e-003		22.0319	22.0319	5.6000e-004		22.0460
Total	**0.0102**	**6.0200e-003**	**0.0806**	**2.2000e-004**	**0.0224**	**1.4000e-004**	**0.0225**	**5.9300e-003**	**1.2000e-004**	**6.0500e-003**		**22.0319**	**22.0319**	**5.6000e-004**		**22.0460**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.0288	36.8075	36.3798	0.1597	9.5850	0.0845	9.6695	2.5639	0.0786	2.6425		16,427.5172	16,427.5172	1.0851		16,454.6436
Unmitigated	6.0288	36.8075	36.3798	0.1597	9.5850	0.0845	9.6695	2.5639	0.0786	2.6425		16,427.5172	16,427.5172	1.0851		16,454.6436

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	2,464.32	2,453.64	2002.56	1,853,599	1,853,599
Fast Food Restaurant with Drive Thru	2,461.14	2,166.09	1628.16	2,420,484	2,420,484
Parking Lot	0.00	0.00	0.00		
Total	4,925.46	4,619.73	3,630.72	4,274,083	4,274,083

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	16.60	8.40	6.90	0.80	80.20	19.00	20	21	59
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.551648	0.035769	0.187848	0.110184	0.013450	0.004660	0.017552	0.070120	0.001413	0.001134	0.004476	0.000905	0.000840
Fast Food Restaurant with Drive Thru	0.551648	0.035769	0.187848	0.110184	0.013450	0.004660	0.017552	0.070120	0.001413	0.001134	0.004476	0.000905	0.000840
Parking Lot	0.551648	0.035769	0.187848	0.110184	0.013450	0.004660	0.017552	0.070120	0.001413	0.001134	0.004476	0.000905	0.000840

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0245	0.2228	0.1871	1.3400e-003		0.0169	0.0169		0.0169	0.0169		267.3313	267.3313	5.1200e-003	4.9000e-003	268.9199
NaturalGas Unmitigated	0.0245	0.2228	0.1871	1.3400e-003		0.0169	0.0169		0.0169	0.0169		267.3313	267.3313	5.1200e-003	4.9000e-003	268.9199

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market With Gas Pumps	24.864	2.7000e-004	2.4400e-003	2.0500e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		2.9252	2.9252	6.0000e-005	5.0000e-005	2.9426
Fast Food Restaurant with Drive Thru	2247.45	0.0242	0.2203	0.1851	1.3200e-003		0.0168	0.0168		0.0168	0.0168		264.4061	264.4061	5.0700e-003	4.8500e-003	265.9774
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0245**	**0.2228**	**0.1871**	**1.3300e-003**		**0.0169**	**0.0169**		**0.0169**	**0.0169**		**267.3313**	**267.3313**	**5.1300e-003**	**4.9000e-003**	**268.9199**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market With Gas Pumps	0.024864	2.7000e-004	2.4400e-003	2.0500e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		2.9252	2.9252	6.0000e-005	5.0000e-005	2.9426
Fast Food Restaurant with Drive Thru	2.24745	0.0242	0.2203	0.1851	1.3200e-003		0.0168	0.0168		0.0168	0.0168		264.4061	264.4061	5.0700e-003	4.8500e-003	265.9774
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0245**	**0.2228**	**0.1871**	**1.3300e-003**		**0.0169**	**0.0169**		**0.0169**	**0.0169**		**267.3313**	**267.3313**	**5.1300e-003**	**4.9000e-003**	**268.9199**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1617	6.0000e-005	6.8300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0147	0.0147	4.0000e-005		0.0156
Unmitigated	0.1617	6.0000e-005	6.8300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0147	0.0147	4.0000e-005		0.0156

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0133					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1477					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.3000e-004	6.0000e-005	6.8300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0147	0.0147	4.0000e-005		0.0156
Total	**0.1617**	**6.0000e-005**	**6.8300e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0147**	**0.0147**	**4.0000e-005**		**0.0156**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0133					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1477					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.3000e-004	6.0000e-005	6.8300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0147	0.0147	4.0000e-005		0.0156
Total	**0.1617**	**6.0000e-005**	**6.8300e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0147**	**0.0147**	**4.0000e-005**		**0.0156**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Dracaea/Perris Commercial Project

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	52.00	Space	2.14	20,800.00	0
Fast Food Restaurant with Drive Thru	3.00	1000sqft	0.07	3,000.00	0
Convenience Market With Gas Pumps	12.00	Pump	0.09	4,088.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project site area is 2.3 acres.

Construction Phase -

Grading - Project site is approx. 2.30 acres. Assume fuel tanks installation requires soil excavation of approx. 700 cy to be exported.

Vehicle Trips - Trip generation rates without pass-by trips were obtained from Table 5-A of the Traffic Impact Analysis report (LSA 2020)

Construction Off-road Equipment Mitigation - Fugitive dust controled with on-site watering at least 3 times daily - SCAQMD Rule 403.

Area Mitigation -

Dracaea/Perris Commercial Project - Riverside-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	3,544.00	2,347.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	10,632.00	7,041.00
tblArchitecturalCoating	ConstArea_Parking	1,248.00	1,104.00
tblAreaCoating	Area_Nonresidential_Exterior	3544	2347
tblAreaCoating	Area_Nonresidential_Interior	10632	7041
tblAreaCoating	Area_Parking	1248	1104
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	220.00	100.00
tblConstructionPhase	NumDays	6.00	2.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	3.00	1.00
tblGrading	AcresOfGrading	1.00	2.30
tblGrading	AcresOfGrading	1.50	0.50
tblGrading	MaterialExported	0.00	700.00
tblLandUse	LandUseSquareFeet	1,694.10	4,088.00
tblLandUse	LotAcreage	0.47	2.14
tblLandUse	LotAcreage	0.04	0.09
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00

tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	5.00	4.00
tblTripsAndVMT	WorkerTripNumber	8.00	5.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	11.00	10.00
tblTripsAndVMT	WorkerTripNumber	20.00	18.00
tblVehicleTrips	PB_TP	65.00	59.00
tblVehicleTrips	PR_TP	14.00	20.00
tblVehicleTrips	WD_TR	542.60	205.36
tblVehicleTrips	WD_TR	496.12	820.38

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1501	0.9375	0.8884	1.5000e-003	0.0105	0.0518	0.0622	2.8000e-003	0.0495	0.0523	0.0000	126.4031	126.4031	0.0244	0.0000	127.0139
Maximum	**0.1501**	**0.9375**	**0.8884**	**1.5000e-003**	**0.0105**	**0.0518**	**0.0622**	**2.8000e-003**	**0.0495**	**0.0523**	**0.0000**	**126.4031**	**126.4031**	**0.0244**	**0.0000**	**127.0139**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1501	0.9375	0.8884	1.5000e-003	9.0900e-003	0.0518	0.0609	2.4400e-003	0.0495	0.0519	0.0000	126.4030	126.4030	0.0244	0.0000	127.0137
Maximum	**0.1501**	**0.9375**	**0.8884**	**1.5000e-003**	**9.0900e-003**	**0.0518**	**0.0609**	**2.4400e-003**	**0.0495**	**0.0519**	**0.0000**	**126.4030**	**126.4030**	**0.0244**	**0.0000**	**127.0137**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**13.35**	**0.00**	**2.23**	**12.86**	**0.00**	**0.69**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2020	8-31-2020	0.6571	0.6571
2	9-1-2020	9-30-2020	0.2125	0.2125
		Highest	0.6571	0.6571

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0295	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6600e-003	1.6600e-003	0.0000	0.0000	1.7700e-003
Energy	4.4700e-003	0.0407	0.0342	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003	0.0000	108.4146	108.4146	3.5000e-003	1.3600e-003	108.9071
Mobile	0.8474	6.3606	6.0490	0.0262	1.6313	0.0147	1.6460	0.4370	0.0137	0.4507	0.0000	2,443.1597	2,443.1597	0.1765	0.0000	2,447.5726
Waste						0.0000	0.0000		0.0000	0.0000	7.0154	0.0000	7.0154	0.4146	0.0000	17.3803
Water						0.0000	0.0000		0.0000	0.0000	0.3287	4.7765	5.1052	0.0340	8.4000e-004	6.2039
Total	**0.8814**	**6.4013**	**6.0840**	**0.0264**	**1.6313**	**0.0178**	**1.6491**	**0.4370**	**0.0168**	**0.4538**	**7.3441**	**2,556.3524**	**2,563.6965**	**0.6286**	**2.2000e-003**	**2,580.0656**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0295	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6600e-003	1.6600e-003	0.0000	0.0000	1.7700e-003
Energy	4.4700e-003	0.0407	0.0342	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003	0.0000	108.4146	108.4146	3.5000e-003	1.3600e-003	108.9071
Mobile	0.8474	6.3606	6.0490	0.0262	1.6313	0.0147	1.6460	0.4370	0.0137	0.4507	0.0000	2,443.1597	2,443.1597	0.1765	0.0000	2,447.5726
Waste						0.0000	0.0000		0.0000	0.0000	7.0154	0.0000	7.0154	0.4146	0.0000	17.3803
Water						0.0000	0.0000		0.0000	0.0000	0.3287	4.7765	5.1052	0.0340	8.4000e-004	6.2039
Total	**0.8814**	**6.4013**	**6.0840**	**0.0264**	**1.6313**	**0.0178**	**1.6491**	**0.4370**	**0.0168**	**0.4538**	**7.3441**	**2,556.3524**	**2,563.6965**	**0.6286**	**2.2000e-003**	**2,580.0656**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2020	6/1/2020	5	1	
2	Grading	Grading	6/2/2020	6/3/2020	5	2	
3	Building Construction	Building Construction	6/4/2020	10/21/2020	5	100	
4	Paving	Paving	10/22/2020	10/28/2020	5	5	
5	Architectural Coating	Architectural Coating	10/29/2020	11/4/2020	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 2.3

Acres of Paving: 2.14

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,041; Non-Residential Outdoor: 2,347; Striped Parking Area: 1,104 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	10.00	0.00	88.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.4000e-004	0.0101	5.7800e-003	1.0000e-005		4.0000e-004	4.0000e-004		3.7000e-004	3.7000e-004	0.0000	1.0934	1.0934	3.5000e-004	0.0000	1.1022
Total	**8.4000e-004**	**0.0101**	**5.7800e-003**	**1.0000e-005**	**2.7000e-004**	**4.0000e-004**	**6.7000e-004**	**3.0000e-005**	**3.7000e-004**	**4.0000e-004**	**0.0000**	**1.0934**	**1.0934**	**3.5000e-004**	**0.0000**	**1.1022**

3.2 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	9.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0230	0.0230	0.0000	0.0000	0.0230
Total	**1.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0230**	**0.0230**	**0.0000**	**0.0000**	**0.0230**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-004	0.0000	1.0000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.4000e-004	0.0101	5.7800e-003	1.0000e-005		4.0000e-004	4.0000e-004		3.7000e-004	3.7000e-004	0.0000	1.0934	1.0934	3.5000e-004	0.0000	1.1022
Total	**8.4000e-004**	**0.0101**	**5.7800e-003**	**1.0000e-005**	**1.0000e-004**	**4.0000e-004**	**5.0000e-004**	**1.0000e-005**	**3.7000e-004**	**3.8000e-004**	**0.0000**	**1.0934**	**1.0934**	**3.5000e-004**	**0.0000**	**1.1022**

3.2 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	9.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0230	0.0230	0.0000	0.0000	0.0230
Total	**1.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0230**	**0.0230**	**0.0000**	**0.0000**	**0.0230**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0200e-003	0.0000	2.0200e-003	5.5000e-004	0.0000	5.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3400e-003	0.0142	9.4400e-003	2.0000e-005		6.7000e-004	6.7000e-004		6.3000e-004	6.3000e-004	0.0000	1.6238	1.6238	3.9000e-004	0.0000	1.6335
Total	**1.3400e-003**	**0.0142**	**9.4400e-003**	**2.0000e-005**	**2.0200e-003**	**6.7000e-004**	**2.6900e-003**	**5.5000e-004**	**6.3000e-004**	**1.1800e-003**	**0.0000**	**1.6238**	**1.6238**	**3.9000e-004**	**0.0000**	**1.6335**

3.3 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3000e-004	0.0107	1.3800e-003	3.0000e-005	7.6000e-004	3.0000e-005	7.9000e-004	2.1000e-004	3.0000e-005	2.4000e-004	0.0000	3.1904	3.1904	2.0000e-004	0.0000	3.1954
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	3.0000e-005	3.4000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0920	0.0920	0.0000	0.0000	0.0920
Total	**2.8000e-004**	**0.0107**	**1.7200e-003**	**3.0000e-005**	**8.7000e-004**	**3.0000e-005**	**9.0000e-004**	**2.4000e-004**	**3.0000e-005**	**2.7000e-004**	**0.0000**	**3.2824**	**3.2824**	**2.0000e-004**	**0.0000**	**3.2874**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.9000e-004	0.0000	7.9000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3400e-003	0.0142	9.4400e-003	2.0000e-005		6.7000e-004	6.7000e-004		6.3000e-004	6.3000e-004	0.0000	1.6238	1.6238	3.9000e-004	0.0000	1.6335
Total	**1.3400e-003**	**0.0142**	**9.4400e-003**	**2.0000e-005**	**7.9000e-004**	**6.7000e-004**	**1.4600e-003**	**2.2000e-004**	**6.3000e-004**	**8.5000e-004**	**0.0000**	**1.6238**	**1.6238**	**3.9000e-004**	**0.0000**	**1.6335**

3.3 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3000e-004	0.0107	1.3800e-003	3.0000e-005	7.6000e-004	3.0000e-005	7.9000e-004	2.1000e-004	3.0000e-005	2.4000e-004	0.0000	3.1904	3.1904	2.0000e-004	0.0000	3.1954
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	3.0000e-005	3.4000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0920	0.0920	0.0000	0.0000	0.0920
Total	**2.8000e-004**	**0.0107**	**1.7200e-003**	**3.0000e-005**	**8.7000e-004**	**3.0000e-005**	**9.0000e-004**	**2.4000e-004**	**3.0000e-005**	**2.7000e-004**	**0.0000**	**3.2824**	**3.2824**	**2.0000e-004**	**0.0000**	**3.2874**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1144	0.8523	0.8197	1.2800e-003		0.0490	0.0490		0.0469	0.0469	0.0000	106.5237	106.5237	0.0220	0.0000	107.0723
Total	**0.1144**	**0.8523**	**0.8197**	**1.2800e-003**		**0.0490**	**0.0490**		**0.0469**	**0.0469**	**0.0000**	**106.5237**	**106.5237**	**0.0220**	**0.0000**	**107.0723**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.7000e-004	0.0208	4.0700e-003	5.0000e-005	1.2600e-003	1.2000e-004	1.3800e-003	3.6000e-004	1.1000e-004	4.8000e-004	0.0000	4.9178	4.9178	3.9000e-004	0.0000	4.9276
Worker	2.3000e-003	1.6100e-003	0.0172	5.0000e-005	5.5000e-003	3.0000e-005	5.5300e-003	1.4600e-003	3.0000e-005	1.4900e-003	0.0000	4.5980	4.5980	1.2000e-004	0.0000	4.6008
Total	**2.8700e-003**	**0.0224**	**0.0213**	**1.0000e-004**	**6.7600e-003**	**1.5000e-004**	**6.9100e-003**	**1.8200e-003**	**1.4000e-004**	**1.9700e-003**	**0.0000**	**9.5157**	**9.5157**	**5.1000e-004**	**0.0000**	**9.5284**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1144	0.8522	0.8197	1.2800e-003		0.0490	0.0490		0.0469	0.0469	0.0000	106.5236	106.5236	0.0220	0.0000	107.0722
Total	**0.1144**	**0.8522**	**0.8197**	**1.2800e-003**		**0.0490**	**0.0490**		**0.0469**	**0.0469**	**0.0000**	**106.5236**	**106.5236**	**0.0220**	**0.0000**	**107.0722**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.7000e-004	0.0208	4.0700e-003	5.0000e-005	1.2600e-003	1.2000e-004	1.3800e-003	3.6000e-004	1.1000e-004	4.8000e-004	0.0000	4.9178	4.9178	3.9000e-004	0.0000	4.9276
Worker	2.3000e-003	1.6100e-003	0.0172	5.0000e-005	5.5000e-003	3.0000e-005	5.5300e-003	1.4600e-003	3.0000e-005	1.4900e-003	0.0000	4.5980	4.5980	1.2000e-004	0.0000	4.6008
Total	**2.8700e-003**	**0.0224**	**0.0213**	**1.0000e-004**	**6.7600e-003**	**1.5000e-004**	**6.9100e-003**	**1.8200e-003**	**1.4000e-004**	**1.9700e-003**	**0.0000**	**9.5157**	**9.5157**	**5.1000e-004**	**0.0000**	**9.5284**

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.4500e-003	0.0234	0.0241	4.0000e-005		1.2600e-003	1.2600e-003		1.1600e-003	1.1600e-003	0.0000	3.2430	3.2430	9.7000e-004	0.0000	3.2673
Paving	2.8000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.2500e-003**	**0.0234**	**0.0241**	**4.0000e-005**		**1.2600e-003**	**1.2600e-003**		**1.1600e-003**	**1.1600e-003**	**0.0000**	**3.2430**	**3.2430**	**9.7000e-004**	**0.0000**	**3.2673**

3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.4000e-004	1.5500e-003	0.0000	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4138	0.4138	1.0000e-005	0.0000	0.4141
Total	**2.1000e-004**	**1.4000e-004**	**1.5500e-003**	**0.0000**	**4.9000e-004**	**0.0000**	**5.0000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4138**	**0.4138**	**1.0000e-005**	**0.0000**	**0.4141**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.4500e-003	0.0234	0.0241	4.0000e-005		1.2600e-003	1.2600e-003		1.1600e-003	1.1600e-003	0.0000	3.2430	3.2430	9.7000e-004	0.0000	3.2673
Paving	2.8000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.2500e-003**	**0.0234**	**0.0241**	**4.0000e-005**		**1.2600e-003**	**1.2600e-003**		**1.1600e-003**	**1.1600e-003**	**0.0000**	**3.2430**	**3.2430**	**9.7000e-004**	**0.0000**	**3.2673**

3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.4000e-004	1.5500e-003	0.0000	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4138	0.4138	1.0000e-005	0.0000	0.4141
Total	**2.1000e-004**	**1.4000e-004**	**1.5500e-003**	**0.0000**	**4.9000e-004**	**0.0000**	**5.0000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4138**	**0.4138**	**1.0000e-005**	**0.0000**	**0.4141**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0243					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1000e-004	4.2100e-003	4.5800e-003	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6396
Total	**0.0249**	**4.2100e-003**	**4.5800e-003**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**	**0.0000**	**0.6383**	**0.6383**	**5.0000e-005**	**0.0000**	**0.6396**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	1.7000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0460	0.0460	0.0000	0.0000	0.0460
Total	**2.0000e-005**	**2.0000e-005**	**1.7000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**6.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0460**	**0.0460**	**0.0000**	**0.0000**	**0.0460**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0243					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1000e-004	4.2100e-003	4.5800e-003	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6396
Total	**0.0249**	**4.2100e-003**	**4.5800e-003**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**	**0.0000**	**0.6383**	**0.6383**	**5.0000e-005**	**0.0000**	**0.6396**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	1.7000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0460	0.0460	0.0000	0.0000	0.0460
Total	**2.0000e-005**	**2.0000e-005**	**1.7000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**6.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0460**	**0.0460**	**0.0000**	**0.0000**	**0.0460**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.8474	6.3606	6.0490	0.0262	1.6313	0.0147	1.6460	0.4370	0.0137	0.4507	0.0000	2,443.1597	2,443.1597	0.1765	0.0000	2,447.5726
Unmitigated	0.8474	6.3606	6.0490	0.0262	1.6313	0.0147	1.6460	0.4370	0.0137	0.4507	0.0000	2,443.1597	2,443.1597	0.1765	0.0000	2,447.5726

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	2,464.32	2,453.64	2002.56	1,853,599	1,853,599
Fast Food Restaurant with Drive Thru	2,461.14	2,166.09	1628.16	2,420,484	2,420,484
Parking Lot	0.00	0.00	0.00		
Total	4,925.46	4,619.73	3,630.72	4,274,083	4,274,083

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	16.60	8.40	6.90	0.80	80.20	19.00	20	21	59
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.551648	0.035769	0.187848	0.110184	0.013450	0.004660	0.017552	0.070120	0.001413	0.001134	0.004476	0.000905	0.000840
Fast Food Restaurant with Drive Thru	0.551648	0.035769	0.187848	0.110184	0.013450	0.004660	0.017552	0.070120	0.001413	0.001134	0.004476	0.000905	0.000840
Parking Lot	0.551648	0.035769	0.187848	0.110184	0.013450	0.004660	0.017552	0.070120	0.001413	0.001134	0.004476	0.000905	0.000840

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	64.1549	64.1549	2.6500e-003	5.5000e-004	64.3844
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	64.1549	64.1549	2.6500e-003	5.5000e-004	64.3844
NaturalGas Mitigated	4.4700e-003	0.0407	0.0342	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003	0.0000	44.2597	44.2597	8.5000e-004	8.1000e-004	44.5227
NaturalGas Unmitigated	4.4700e-003	0.0407	0.0342	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003	0.0000	44.2597	44.2597	8.5000e-004	8.1000e-004	44.5227

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market With Gas Pumps	9075.36	5.0000e-005	4.4000e-004	3.7000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4843	0.4843	1.0000e-005	1.0000e-005	0.4872
Fast Food Restaurant with Drive Thru	820320	4.4200e-003	0.0402	0.0338	2.4000e-004		3.0600e-003	3.0600e-003		3.0600e-003	3.0600e-003	0.0000	43.7754	43.7754	8.4000e-004	8.0000e-004	44.0355
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**4.4700e-003**	**0.0407**	**0.0342**	**2.4000e-004**		**3.0900e-003**	**3.0900e-003**		**3.0900e-003**	**3.0900e-003**	**0.0000**	**44.2597**	**44.2597**	**8.5000e-004**	**8.1000e-004**	**44.5227**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market With Gas Pumps	9075.36	5.0000e-005	4.4000e-004	3.7000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4843	0.4843	1.0000e-005	1.0000e-005	0.4872
Fast Food Restaurant with Drive Thru	820320	4.4200e-003	0.0402	0.0338	2.4000e-004		3.0600e-003	3.0600e-003		3.0600e-003	3.0600e-003	0.0000	43.7754	43.7754	8.4000e-004	8.0000e-004	44.0355
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**4.4700e-003**	**0.0407**	**0.0342**	**2.4000e-004**		**3.0900e-003**	**3.0900e-003**		**3.0900e-003**	**3.0900e-003**	**0.0000**	**44.2597**	**44.2597**	**8.5000e-004**	**8.1000e-004**	**44.5227**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	51631.4	16.4509	6.8000e-004	1.4000e-004	16.5097
Fast Food Restaurant with Drive Thru	142440	45.3844	1.8700e-003	3.9000e-004	45.5468
Parking Lot	7280	2.3196	1.0000e-004	2.0000e-005	2.3279
Total		**64.1549**	**2.6500e-003**	**5.5000e-004**	**64.3844**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	51631.4	16.4509	6.8000e-004	1.4000e-004	16.5097
Fast Food Restaurant with Drive Thru	142440	45.3844	1.8700e-003	3.9000e-004	45.5468
Parking Lot	7280	2.3196	1.0000e-004	2.0000e-005	2.3279
Total		**64.1549**	**2.6500e-003**	**5.5000e-004**	**64.3844**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0295	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6600e-003	1.6600e-003	0.0000	0.0000	1.7700e-003
Unmitigated	0.0295	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6600e-003	1.6600e-003	0.0000	0.0000	1.7700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.4300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0270					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.0000e-005	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6600e-003	1.6600e-003	0.0000	0.0000	1.7700e-003
Total	**0.0295**	**1.0000e-005**	**8.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.6600e-003**	**1.6600e-003**	**0.0000**	**0.0000**	**1.7700e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.4300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0270					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.0000e-005	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6600e-003	1.6600e-003	0.0000	0.0000	1.7700e-003
Total	**0.0295**	**1.0000e-005**	**8.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.6600e-003**	**1.6600e-003**	**0.0000**	**0.0000**	**1.7700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.1052	0.0340	8.4000e-004	6.2039
Unmitigated	5.1052	0.0340	8.4000e-004	6.2039

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.125486 / 0.0769109	0.8327	4.1200e-003	1.0000e-004	0.9665
Fast Food Restaurant with Drive Thru	0.910601 / 0.0581235	4.2725	0.0298	7.3000e-004	5.2374
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**5.1052**	**0.0340**	**8.3000e-004**	**6.2039**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.125486 / 0.0769109	0.8327	4.1200e-003	1.0000e-004	0.9665
Fast Food Restaurant with Drive Thru	0.910601 / 0.0581235	4.2725	0.0298	7.3000e-004	5.2374
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**5.1052**	**0.0340**	**8.3000e-004**	**6.2039**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	7.0154	0.4146	0.0000	17.3803
Unmitigated	7.0154	0.4146	0.0000	17.3803

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	34.56	7.0154	0.4146	0.0000	17.3803
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**7.0154**	**0.4146**	**0.0000**	**17.3803**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	34.56	7.0154	0.4146	0.0000	17.3803
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**7.0154**	**0.4146**	**0.0000**	**17.3803**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B:

Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis and Biology Report, Commercial Retail Project at Perris Boulevard/Dracaea Avenue, City of Moreno Valley, Riverside County, California

WESTERN RIVERSIDE COUNTY MULTIPLE SPECIES HABITAT CONSERVATION PLAN CONSISTENCY ANALYSIS AND BIOLOGY REPORT

COMMERCIAL RETAIL PROJECT AT PERRIS BOULEVARD/DRACAEA AVENUE

CITY OF MORENO VALLEY

RIVERSIDE COUNTY, CALIFORNIA

LSA

September 2020

WESTERN RIVERSIDE COUNTY MULTIPLE SPECIES HABITAT CONSERVATION PLAN CONSISTENCY ANALYSIS AND BIOLOGY REPORT

COMMERCIAL RETAIL PROJECT AT PERRIS BOULEVARD/DRACAEA AVENUE

CITY OF MORENO VALLEY

RIVERSIDE COUNTY, CALIFORNIA

MSHCP Permittee:

City of Moreno Valley

Prepared for:

Cadence Acquisition LLC
6400 S. Fiddlers Green Circle, Suite 1820
Greenwood Village, Colorado 80111

Prepared by:

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(951) 781-9310

LSA Project No. CAQ1901

LSA

September 2020

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APPENDICES

1.0 EXECUTIVE SUMMARY

LSA Associates Inc., doing business as LSA, was retained by TAIT & Associates (TAIT) to conduct a Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) consistency analysis and general biological study of the approximately 2.3-acre Commercial Retail Project at Perris Boulevard/Dracaea Avenue (project) in the City of Moreno Valley, Riverside County, California.

The project is not located within the MSHCP Criteria Area, Public/Quasi-Public Lands, or conservation areas.

The project site does not contain suitable habitat for any threatened or endangered species. No drainage features, ponded areas, or riparian habitat potentially subject to jurisdiction by the California Department of Fish and Wildlife (CDFW), U.S. Army Corps of Engineers (USACE), or the Regional Water Quality Control Board (RWQCB) were found within the project site.

The project area is not within the MSHCP Narrow Endemic Plant Species Area, burrowing owl (*Athene cunicularia hypugaea*) survey area, or any other species survey areas. Therefore, no surveys for MSHCP survey species will be required. In addition, "species not adequately conserved" by the MSHCP were not found within the project area.

The project will not be subject to MSHCP Urban/Wildlands interface requirements because the project area is not within or adjacent to an identified Conservation Area. In addition, because the project is not located within a Criteria Area or Public/Quasi-Public Lands, it is not subject to best management practices (BMPs) specified in Appendix C of the MSHCP.

The project site is located within the Stephens' Kangaroo Rat Habitat Conservation Plan area and a fee payment will be required prior to issuance of a grading permit.

2.0 INTRODUCTION

TAIT retained LSA to conduct a Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis and general biological study for the Commercial Retail Project at Perris Boulevard and Dracaea Avenue in the City of Moreno Valley, Riverside County, California. The purpose of this Consistency Analysis report is to summarize the biological data for the proposed project and its consistency with the goals and objectives of the MSHCP.

2.1 PROJECT AREA

The 2.3-acre project site consists of an undeveloped corner lot surrounded by existing roads and residential and commercial development at the northeast corner of Perris Boulevard and Dracaea Avenue (Figure 1; see Appendix A for all figures) on Assessor's Parcel Numbers 479-120-042, 479-120-027, 479-120-029, and 479-120-043. The entire project site is proposed for development. The project site is mostly devoid of vegetation since the lot has been historically plowed or disked for weed abatement compliance. Historical aerial imagery of the project site revealed that the project site has remained mostly undeveloped since 1966.

3.0 RESERVE ASSEMBLY ANALYSIS

3.1 CELL AND CRITERIA ANALYSIS

The MSHCP provides for the assembly of a Conservation Area consisting of Core Areas and Linkages for the conservation of covered species. The Conservation Area is to be assembled from portions of the MSHCP Criteria Area, which consist of quarter-section (i.e., approximately 160-acre) Criteria Cells, each with specific criteria for the species conservation within that cell.

The project is not located within an MSHCP defined criteria cell or special survey area.

3.2 PUBLIC QUASI-PUBLIC LANDS ANALYSIS

The project area is not located within or adjacent to public or quasi-public lands.

4.0 VEGETATION MAPPING

The project site does not contain any natural plant communities since it is regularly disked for weed abatement compliance (Figure 3). There are several dead and live ornamental trees along the eastern perimeter. Table A shows the results of an on-site tree inventory. The project site was recently plowed; however, some evidence of non-native grassland is still present, likely mouse barley (*Hordeum murinum*), shortpod mustard (*Hirschfeldia incana*), stork's bill (*Erodium* spp.), and red brome (*Bromus madritensis* ssp. *rubens*). A complete list of plant species observed on site is included in Appendix B.

Table A: Tree Inventory

Tree	Species (Trees 4" caliper or 15' tall)	Height (ft)	Caliper at 2'	Rating/ Transplantable	Condition Notes
T1	black locust (*Robinia pseudoacacia*)	24	8	Poor/No	Poor structure (codominant leaders, pleaching)
T2	black locust (*Robinia pseudoacacia*)	18	9.5	Poor/No	Poor structure (codominant leaders, pleaching); unhealed old branch cuts
T3	black locust (*Robinia pseudoacacia*)	15	6	Poor/No	Poor structure (codominant leaders, pleaching)
T4	eucalyptus (*Eucalyptus* sp.)	35	14	Poor/No	Poor structure (codominant leaders, pleaching); unhealed old branch cuts

5.0 PROTECTION OF SPECIES ASSOCIATED WITH RIPARIAN/RIVERINE AREAS AND VERNAL POOLS (MSHCP SECTION 6.1.2)

Section 6.1.2 of the MSHCP requires assessment of impacts to riparian habitats, riverine areas, and vernal pools, including focused surveys for sensitive riparian bird and fairy shrimp species when suitable habitat is present. The intent of the assessment requirement is to provide for the protection of resources used by MSHCP-covered species, as well as existing and future downstream conservation areas. Riverine/riparian areas and vernal pools are defined in Section 6.1.2 of the MSHCP as follows:

> *Riparian/Riverine Areas are lands which contain Habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.*
>
> *Vernal pools are seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season. The determination that an area exhibits vernal pool characteristics, and the definition of the watershed supporting vernal pool hydrology, must be made on a case-by-case basis. Such determinations should consider the length of the time the area exhibits upland and wetland characteristics and the manner in which the area fits into the overall ecological system as a wetland. Evidence concerning the persistence of an area's wetness can be obtained from its history, vegetation, soils, and drainage characteristics, uses to which it has been subjected, and weather and hydrologic records.*
>
> Fairy Shrimp. *For Riverside, vernal pool and Santa Rosa fairy shrimp, mapping of stock ponds, ephemeral pools and other features shall also be undertaken as determined appropriate by a qualified biologist.*
>
> *With the exception of wetlands created for the purpose of providing wetlands Habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating characteristics as described above which are artificially created are not included in these definitions.*

5.1 RIPARIAN/RIVERINE AREAS

5.1.1 Methods

LSA Senior Biologist Anthony Greco assessed the project area for riparian/riverine areas on April 12, 2019. LSA surveyed the study area on foot and with small Unmanned Aerial Systems (sUAS) to evaluate all areas of potential jurisdiction according to USACE, CDFW, and MSHCP criteria. Data were recorded using a global positioning system (GPS) unit with submeter accuracy. The assessment

included identification and mapping of plant communities within the project area as well as any drainage features.

5.1.2 Existing Conditions and Results

No drainage features, ponded areas, or riparian habitat subject to jurisdiction by the CDFW, USACE, and/or RWQCB were found within the project site. A review of the *Sunnymead, California* U.S. Geological Survey (USGS) quadrangle and historic aerial photographs (NETROnline) did not reveal any previously mapped drainage features.

5.2 VERNAL POOLS

5.2.1 Methods

LSA Senior Biologist Anthony Greco assessed the project area for vernal pools during the site visit on April 12, 2019. The assessment included a search for depressions, indicators of wetland hydrology, suitable soils, and hydrophytic vegetation. The assessment also included a review of seasonally appropriate aerial photographs (Google Earth) from 2002 through 2018.

5.2.2 Existing Conditions and Results

There are no vernal pools or other ponded areas suitable for sensitive fairy shrimp species on the project site. Soils in the project area are well drained from repeated plowing and have been previously mapped by the Natural Resources Conservation Service (NRCS) as Ramona sandy loam, with 0 to 2 percent slopes (Figure 4). No hydrophytic vegetation occurs in the project area.

5.3 FAIRY SHRIMP

5.3.1 Methods

LSA Senior Biologist Anthony Greco performed the general biological resources survey and jurisdictional delineation fieldwork on April 12, 2019. LSA prepared a field map of the area to be surveyed using a 2019 aerial photograph base at a scale of 1 inch = 100 feet. Mr. Greco surveyed the study area on foot and evaluated all areas of potential jurisdiction according to USACE, CDFW, and MSHCP criteria. Data were recorded using a GPS unit with submeter accuracy and by marking directly on the aerial photograph.

5.3.2 Existing Conditions and Results

There are no vernal pools or other fairy shrimp habitat suitable for sensitive fairy shrimp species on the project site. Soils in the project area are well drained and have been previously mapped by the NRCS as Ramona sandy loam, with 0 to 2 percent slopes.

5.4 RIPARIAN BIRDS

5.4.1 Methods

Habitat suitability for riparian birds, including least Bell's vireo (LBVI; *Vireo bellii pusillus*), southwestern willow flycatcher (SWFL; *Empidonax traillii extimus*), and yellow-billed cuckoo (YBCU; *Coccyzus americanus*) was assessed in conjunction with the assessment for riverine/riparian areas.

5.4.2 Existing Conditions and Results

The project site does not contain any suitable riparian vegetation or habitat for special-status riparian birds. No additional surveys or mitigation are recommended.

6.0 PROTECTION OF NARROW ENDEMIC PLANT SPECIES (MSHCP SECTION 6.1.3)

The project is not located within a Section 6.1.3. Narrow Endemic Plant Species Survey Area (NEPSSA). The project site does not contain suitable vegetation communities, hydrology, or soils to support the narrow endemic plant species.

7.0 ADDITIONAL SURVEY NEEDS AND PROCEDURES (MSHCP SECTION 6.3.2)

The project is not located within a mapped survey area described in MSHCP Section 6.3.2.

7.1 CRITERIA AREA PLANT SPECIES

The project does not fall within a mapped survey area for Criteria Area plant species. The project site does not contain suitable vegetation communities, hydrology, or soils to support the MSHCP Criteria Area Plant Survey Species.

7.2 AMPHIBIANS

The project does not fall within a mapped survey area for amphibian species.

7.3 BURROWING OWL

The project site is not located within or adjacent to any burrowing owl survey areas.

7.3.1 Methods

The burrowing owl habitat assessment was conducted in accordance with guidelines (CDFW's *2012 Staff Report on Burrowing Owl Mitigation and Burrowing Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan Area*, Riverside County Environmental Programs Department, March 29, 2006).

The habitat assessment was conducted on April 12, 2019, between 9:00 and 11:00 a.m. by LSA Biologist Anthony Greco. Weather conditions during the survey were sunny with wind speeds of 5 to 8 miles per hour and temperatures ranging from 65 to 75 degrees.

The survey was conducted by walking throughout all suitable habitat on the project site. The survey area was approximately 2.3 acres and consisted of the project site plus a 500-foot buffer. Transects were spaced at 20 meters, which allowed for 100 percent visual coverage of the ground surface (Figure 6).

7.3.2 Existing Conditions and Results

The project site is a highly disturbed inholding. Soils within the project site are loose, primarily from repeated plowing or other weed abatement compliance methods. No ground squirrel burrows, or other man-made potential burrows were observed within the project site or surrounding survey buffer and none would be expected to occur given the isolation from existing habitat, the presence of avian predator perch sites, and generally high levels of urban activity. Therefore, no suitable habitat for the burrowing owl was found to be present on site and the species is not discussed further in this document.

7.4 MAMMALS

The project site does not fall within a mapped survey area for special-status mammal species.

8.0 INFORMATION ON OTHER SPECIES

8.1 DELHI SANDS FLOWER-LOVING FLY

The project site does not contain Delhi soils nor are any mapped within the MSHCP baseline data. Soils in the project area are well drained and have been previously mapped by the NRCS as Ramona sandy loam, with 0 to 2 percent slopes (Figure 4).

8.2 SPECIES NOT ADEQUATELY CONSERVED

Species identified in MSHCP Table 9-3 are not considered adequately conserved under the MSHCP. Other species with limited coverage or with no take authorization under the MSHCP include Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*), bald eagle (*Haliaeetus leucocephalus*), golden eagle (*Aquila chrysaetos*), peregrine falcon (*Falco peregrinus anatum*), and white-tailed kite (*Elanus leucurus*).

No species identified on MSHCP Table 9-3 would be expected to occur on the project site, due to the level of disturbance and a lack of suitable vegetation communities, soils, and hydrology.

9.0 GUIDELINES PERTAINING TO THE URBAN/WILDLANDS INTERFACE (MSHCP SECTION 6.1.4)

The project site has no connection to any existing conservation lands or lands described for conservation. No additional guidelines pertaining to MSHCP Section 6.1.4 apply to the project site.

10.0 POTENTIAL JURISDICTIONAL WATERS AND STREAMBEDS

No drainage features, ponded areas, or riparian habitat potentially subject to jurisdiction by the CDFW or USACE were found within the project area.

11.0 NESTING BIRDS

During the bird breeding season (typically February 1 through August 31), large trees on or adjacent to the project area may be used by hawks, ravens, or other large birds for nesting. Trees, shrubs, and other vegetation may provide nest sites for smaller birds, and burrowing owls may nest in ground squirrel burrows, pipes, or similar features. Nesting bird species, with potential to occur are protected by California Fish and Game Code Sections 3503, 3503.5, and 3800, and by the Migratory Bird Treaty Act (MBTA) (16 USC 703–711). These laws regulate the take, possession, or destruction of the nest or eggs of any migratory bird or bird of prey. However, the USFWS has recently determined that the MBTA should apply only to "… affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs" and will not be applied to incidental take of migratory birds pursuant to otherwise lawful activities.

To avoid potential effects to fully protected raptors, special-status bird species, and other nesting birds protected by the California Fish and Game Code, and for compliance with MSHCP Incidental Take Permit Condition 5, the following measures will be implemented:

- A nesting bird pre-construction survey will be conducted by a qualified biologist three days prior to ground-disturbing activities. Should nesting birds be found, an exclusionary buffer will be established by the qualified biologist. The buffer may be up to 500 feet in diameter depending on the species of nesting bird found. This buffer will be clearly marked in the field by construction personnel under guidance of the qualified biologist and construction or clearing will not be conducted within this zone until the qualified biologist determines that the young have fledged or the nest is no longer active. Nesting bird habitat within the project area will be resurveyed during bird breeding season if there is a lapse in construction activities longer than seven days.

12.0 REFERENCES

American Ornithologists' Union. 1998. *The A.O.U. Checklist of North American Birds*, Seventh Edition, American Ornithologists' Union, Washington D.C.; and supplements; see http://www.aou.org/checklist/north/index.php.

California Department of Fish and Wildlife (CDFW). 2019. *RareFind Version 5.1.0,* Records search executed in April 2019, covering the United States Geological Survey 7.5-minute series topographic map, *Sunnymead, California* quadrangle. Resource Management and Planning Division. Biogeographic Data Branch, Natural Diversity Database. Sacramento, California.

California Native Plant Society Electronic Inventory (CNPSEI). 2019. Inventory of Rare and Endangered Plants (http://www.cnps.org/inventory). Records search executed in April 2019, covering the United States Geological Survey 7.5-minute series topographic map, *Sunnymead, California* quadrangle. California Native Plant Society. Sacramento, California.

California Department of Fish and Wildlife. 2012. Staff Report on Burrowing Owl Mitigation. March 7, 2012.

County of Riverside Environmental Programs Department. 2006. Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area, March 29, 2006.

Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. The Resources Agency, Department of Fish and Game, Sacramento. 156 pp.

USFWS (United States Fish and Wildlife Service). 2000. Southwestern Willow Flycatcher Protocol Revision 2000. Sacramento, California: USFWS. https://www.fws.gov/pacific/ecoservices/endangered/recovery/documents/SWWFlycatcher.2000.protocol.pdf.

USFWS. 2001. Least Bell's Vireo Survey Guidelines. January 19, 2001. Sacramento, California: USFWS. https://www.fws.gov/cno/es/Recovery_Permitting/birds/least_bells_vireo/LeastBellsVireo_SurveyGuidelines_20010119.pdf.

USFWS. 2015. A Natural History Summary and Survey Protocol for the Western Distinct Population Segment of the Yellow-Billed Cuckoo. Prepared by M. Halterman, M.J. Johnson, J.A. Holmes, and S.A. Laymon. Sacramento, California: USFWS. April 2015. https://www.fws.gov/southwest/es/Documents/R2ES/YBCU_SurveyProtocol_FINAL_DRAFT_22Apr2015.pdf.

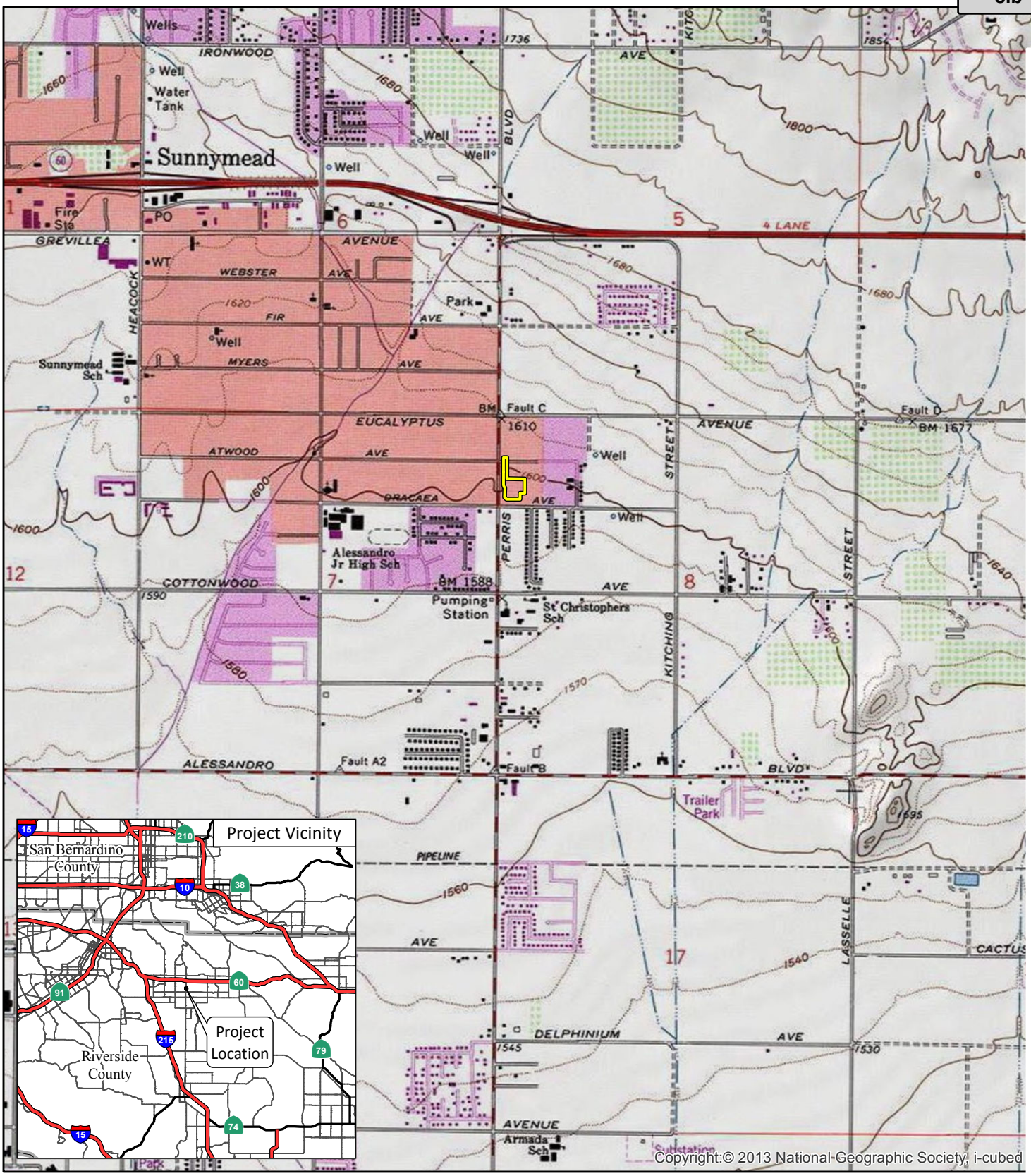
13.0 CERTIFICATION STATEMENT

I hereby certify that the statements furnished in this report present the data and information required for this biological evaluation and the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date: September 1, 2020 Signature: Anthony Greco

APPENDIX A

FIGURES



LSA

LEGEND

Project Location

FIGURE 1

N

0 1000 2000

FEET

Commercial Retail Project at Perris Boulevard/Dracaea Avenue

Project Location

SOURCE: USGS 7.5' Quad., *Sunnymead, CA* (1980)

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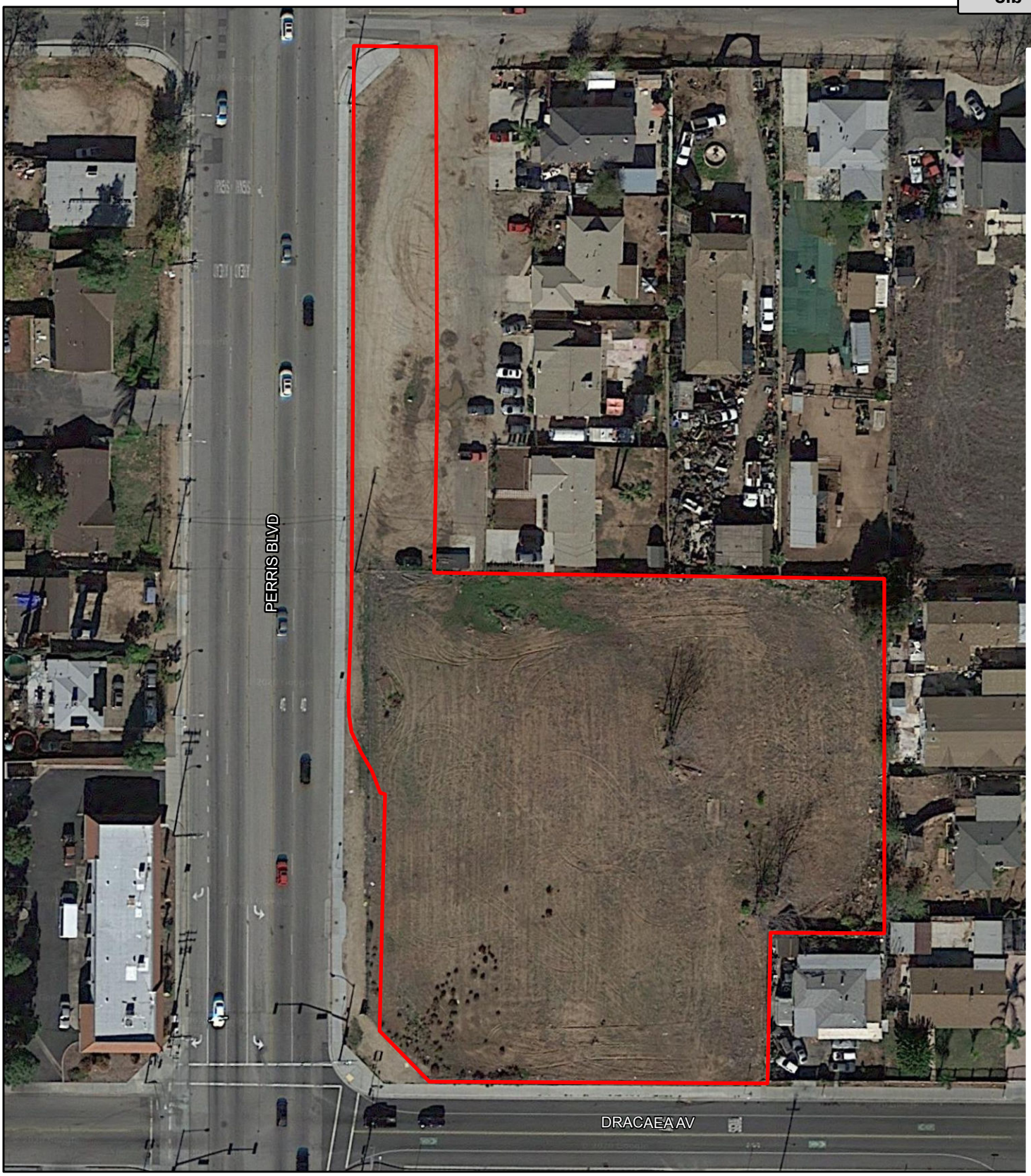

LSA

LEGEND

Project Site

FIGURE 1

N

0 40 80

FEET

Commercial Retail Project at Perris Boulevard/Dracaea Avenue

Project Site

SOURCE: Google (2019)

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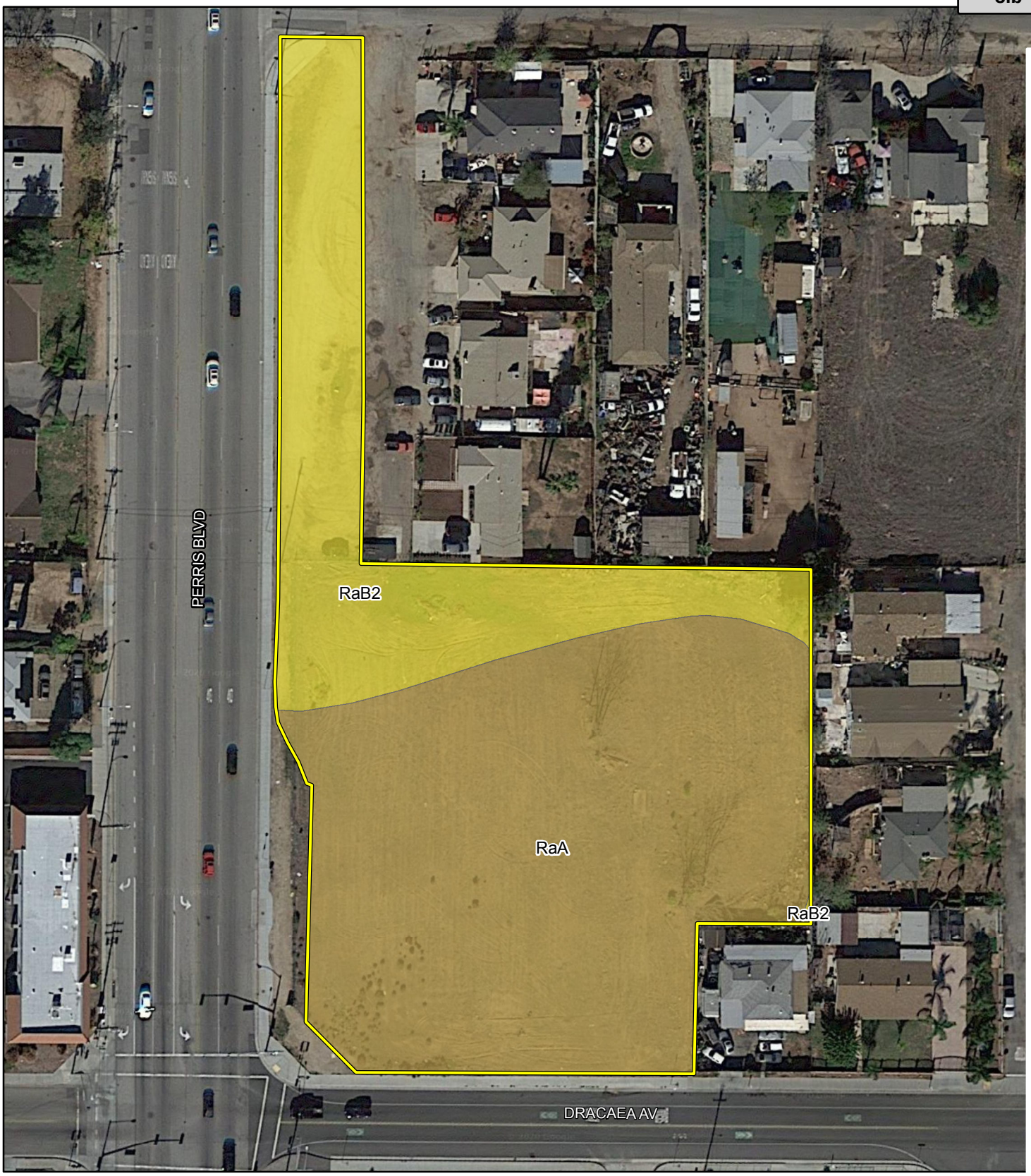

LSA

LEGEND

Project Site

Soil Type

Ramona sandy loam, 0 to 2 percent slopes, MLRA 19 (RaA)

Ramona sandy loam, 2 to 5 percent slopes, eroded (RaB2)

N

0 40 80

FEET

FIGURE 4

Commercial Retail Project at Perris Boulevard/Dracaea Avenue

Soils

SOURCE: Google (2018); SSURGO (accessed 2017)

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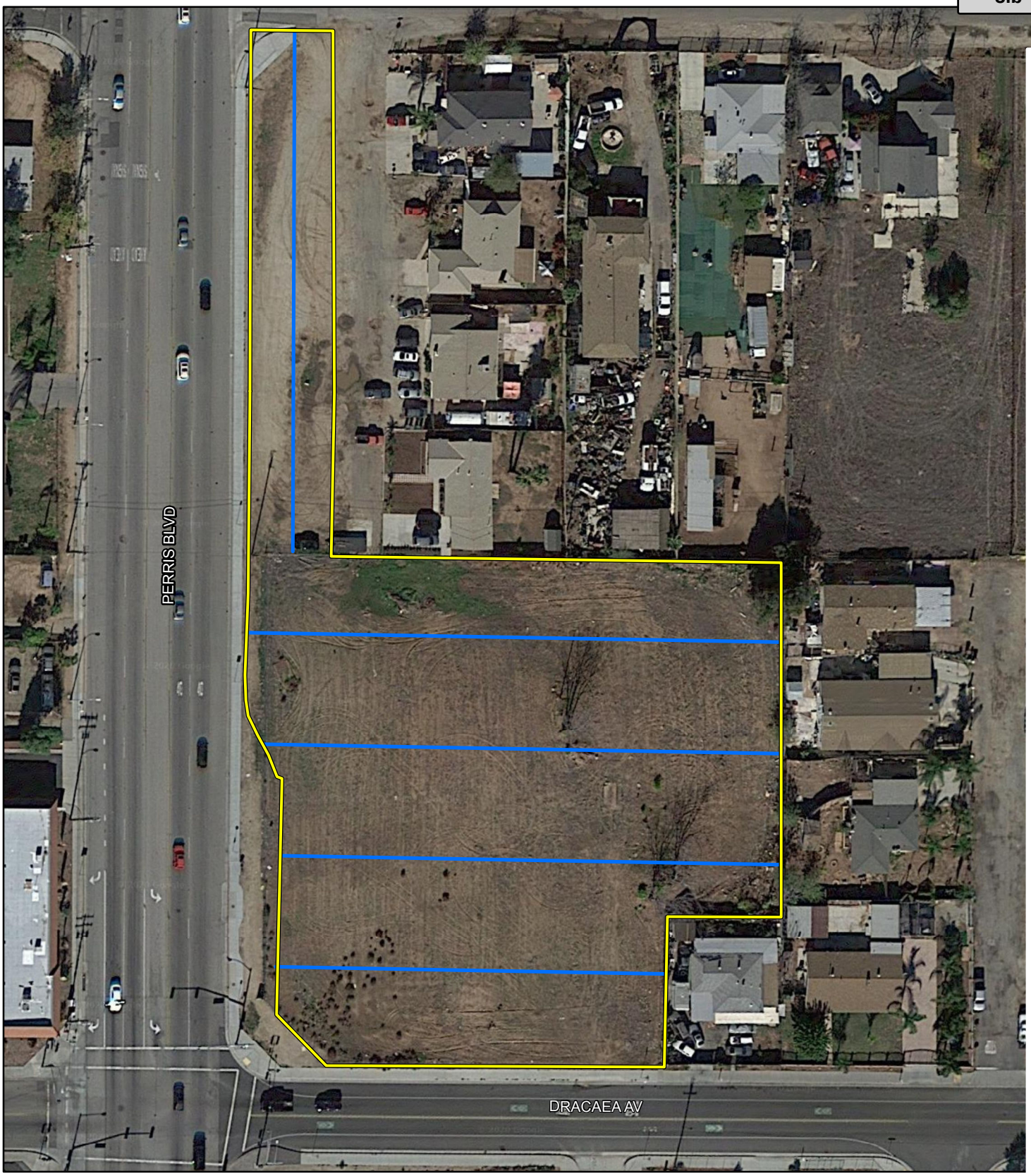
Photograph 1. Aerial view of the project site, facing north.

Photograph 2. Aerial view of project site, facing northwest.



LSA

LEGEND

Project Site

20 Meter Transects

FIGURE 5

N

0 40 80

FEET

Commercial Retail Project at Perris Boulevard/Dracaea Avenu

Burrowing Owl

SOURCE: Google (2019)

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APPENDIX B

PLANT AND ANIMAL SPECIES OBSERVED

Plant and Animal Species Observed

Scientific Name	Common Name
MAGNOLIID FLOWERING PLANTS	
Brassicaceae	**Mustard family**
Hirschfeldia incana (non-native species)	Shortpod mustard
Chenopodiacaeae	**Saltbush family**
Salsola tragus (non-native species)	Russian thistle
Fabaceae	**Fabaceae family**
Robinia pseudoacacia (non-native species)	Black locust
Geraniaceae	**Geranium family**
Erodium cicutarium (non-native species)	Redstem stork's bill
Myrtaceae	**Myrtaceae family**
Eucalyptus sp.	Eucalyptus
Simaroubaceae	**Quassia family**
Ailanthus altissima (non-native species)	Tree of heaven
MONOCOTS FLOWERING PLANTS	
Poaceae	**Grass family**
Bromus diandrus (non-native species)	Ripgut brome
Hordeum murinum (non-native species)	Mouse barley
BIRDS	
Corvidae	**Crows and Jays**
Corvus brachyrhynchos	American crow
Passeridae	**Old World Sparrows**
Passer domesticus (non-native species)	House sparrow
Fringillidae	**Finches**
Haemorhous mexicanus	House finch

Appendix C:

Cultural Resources Assessment, Perris Boulevard and Dracaea Avenue Commercial Retail Project, City of Moreno Valley, Riverside County, California

CULTURAL RESOURCES ASSESSMENT

PERRIS BOULEVARD AND DRACAEA AVENUE COMMERCIAL RETAIL PROJECT

CITY OF MORENO VALLEY

RIVERSIDE COUNTY, CALIFORNIA

LSA

August 2020

CULTURAL RESOURCES ASSESSMENT

PERRIS BOULEVARD AND DRACAEA AVENUE COMMERCIAL RETAIL PROJECT

CITY OF MORENO VALLEY

RIVERSIDE COUNTY, CALIFORNIA

Prepared for:

Cadence Acquisition LLC
6400 S. Fiddlers Green Circle, Suite 1820
Greenwood Village, Colorado 80111

Prepared by:

Riordan Goodwin
LSA Associates, Inc.
1500 Iowa Avenue, Suite 200
Riverside, California 92507

LSA Project No. CAQ1901

National Archaeological Data Base Information:
Type of Study: Reconnaissance Survey
Sites Recorded: 33-028824/CA-RIV-012934
USGS 7.5' Quadrangle: *Sunnymead, California*
Acreage: ~2.3 acres
Keywords: Phase I, previously unsurveyed, positive results

LSA

August 2020

MANAGEMENT SUMMARY

LSA was retained by Cadence Acquisition the to conduct a cultural resources assessment for the proposed Perris Boulevard and Dracaea Avenue Commercial Retail Project located in Moreno Valley, Riverside County, California. This cultural resources assessment was completed pursuant to the California Environmental Quality Act (CEQA).

A cultural resources records search, additional research, and a field survey were conducted for the project area. No cultural resources were previously documented within or near the project parcels by the records search, and no prehistoric resources are recorded within one mile. However, a residence constructed prior to 1930 was formerly located within the project boundaries and associated features (a utility pole and slab) along with a glass bottle fragment dating to the historic period were identified during the survey. While these are (collectively) not a significant resource per se (typical examples of regionally and locally ubiquitous features and artifacts), they are temporal markers and remnant features suggesting limited disturbance. Their cultural resource value has been realized by recordation and their removal does not constitute a significant impact to cultural resources. However, due to the former presence of a pre-Depression Era residence, the project area retains some sensitivity for associated subsurface resources. As archaeological monitoring is part of the standard conditions for the project, no mitigation measures are required.

In the event previously undocumented archaeological resources are identified during earthmoving activities, further work in the area should be halted until the nature and significance of the find can be assessed by a qualified archaeologist.

If human remains are encountered, State Health and Safety Code Section 7050.5. states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to State Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American, the County Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The MLD recommendations may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials, preservation of Native American human remains and associated items in place, relinquishment of Native American human remains and associated items to the descendants for treatment, or any other culturally appropriate treatment.

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INTRODUCTION

LSA was retained by Cadence Acquisition to conduct a cultural resources assessment for the Perris Boulevard and Dracaea Avenue Commercial Retail Project located in Moreno Valley, Riverside County, California. This cultural resources assessment was completed per the California Environmental Quality Act (CEQA), Public Resources Code Chapter 2.6, Section 21083.2, and California Code of Regulations Title 14, Chapter 3, Article 5, Section 15064.5. The research and field survey was conducted to determine whether the proposed project would adversely affect any resources considered historical resources per CEQA.

PERSONNEL

LSA staff that worked on this project included Senior Cultural Resources Manager/Archaeologist Riordan Goodwin, who conducted the research and survey and authored the report; Archaeological Technician Allegria Garcia, who conducted the records search; and Lloyd Sample, who provided principal review.

PROJECT LOCATION AND DESCRIPTION

The proposed project includes approximately 2.3 acres (Assessor's Parcel Numbers [APNs] 479-120-027, 029, 043, and 049 on the northeast corner of Perris Boulevard and Dracaea Avenue. This is depicted on the United States Geological Survey (USGS) *Sunnymead, California* topographic quadrangle map in Township 3 South, Range 3 West in Section 8, San Bernardino Baseline and Meridian (USGS 1968; photo revised 1980) (Figure 1). The project is a proposed commercial retail development.

NATURAL SETTING

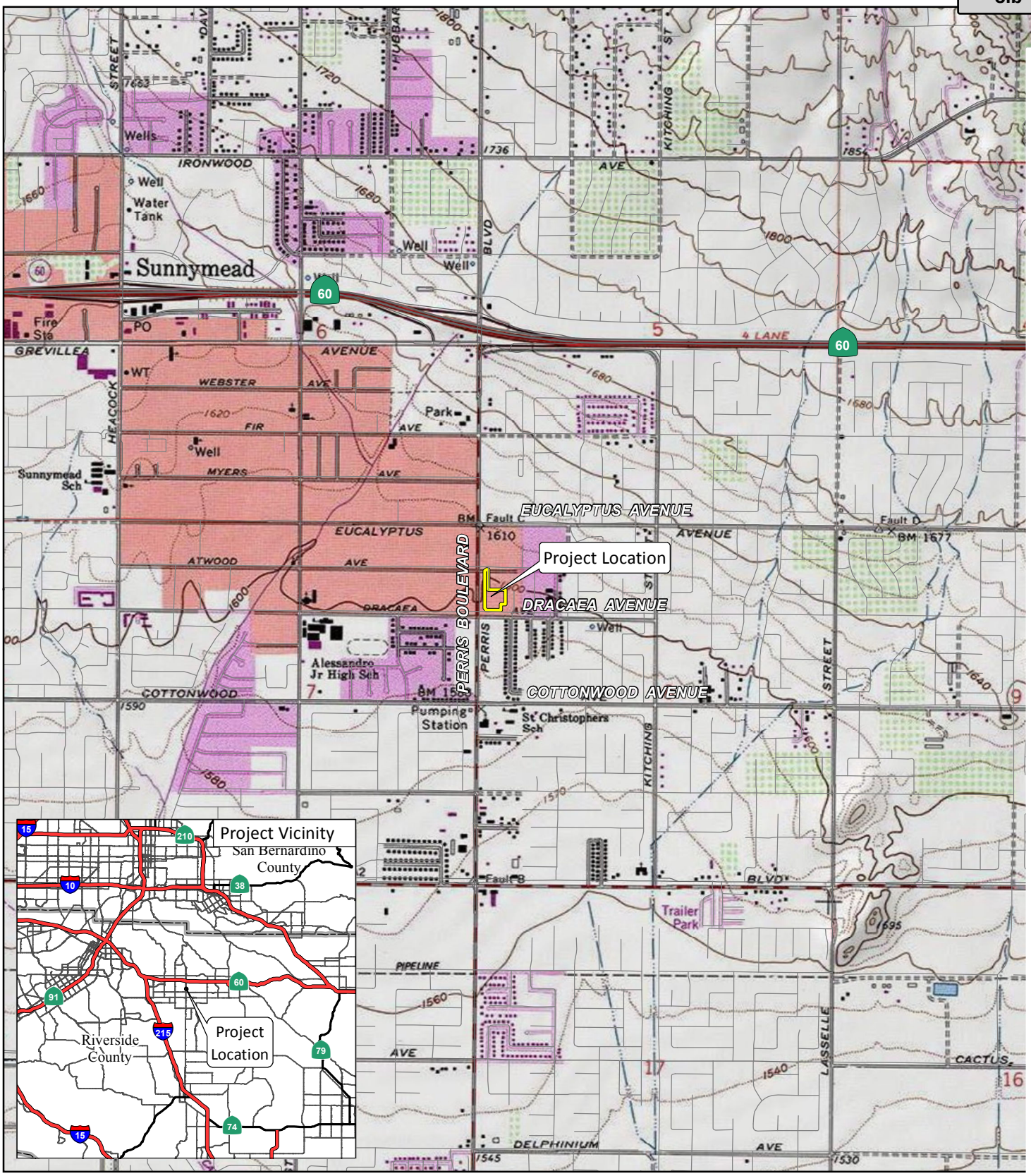
The natural setting of the project vicinity is presented based on the underlying theoretical assumption that humans and human societies are in continual interaction with the physical environment. Being an integral and major part of the ecological system, humans adapt to the environment through technological and behavioral changes. Locations of archaeological sites are based on the constraints of these adaptations, whether it is proximity to a particular resource, topographical restrictions, or shelter and protection. Sites will also contain an assemblage of artifacts and ecofacts consistent with the particular interaction.

Climate and Watershed

The project region is characterized by a temperate climate, with dry, hot summers and moderate winters. Rainfall ranges from 12 to 16 inches annually (Beck and Haase 1974). Precipitation usually occurs in the form of winter rain, with warm monsoonal showers in summer. The project was once bracketed by two drainages within a mile, both of which drained southwest.

Biology

At an elevation of approximately 1,600 feet above mean sea level (amsl), the project is within the Lower Sonoran Life Zone of California (Schoenherr 1992), which ranges from below sea level to 3,500 feet amsl. Pioneer species such as hare oats, mallow, mustard, red brome, Russian thistle,



LSA

FIGURE 1

0 1000 2000
FEET

Perris Boulevard and Dracaea Avenue Commercial Reta

Regional and Project Location

SOURCE: USGS 7.5' Quad - Sunnymead (1980); ESRI Streetmap, 2013.

I:\CAQ1901\Reports\Cultural\fig1_RegLoc.mxd (4/22/2019)

eucalyptus and tree of heaven were noted on the property. Common animals of this region include rodents, rabbits, coyotes, raptors, reptiles, vultures, and insects.

Geology

The project is located at the northern end of the Peninsular Ranges Geomorphic Province that extends from the Transverse Ranges to the tip of Baja California and includes the Los Angeles Basin (California Geological Survey 2002; Norris and Webb 1976). This region is characterized by a series of mountain ranges separated by northwest-trending valleys subparallel to faults branching from the San Andreas Fault. The geology of this province is similar to that of the Sierra Nevada, with numerous rock outcroppings useful to the Native Americans for resource milling, shelter, and ceremonial art.

CULTURAL SETTING

Prehistory

Chronologies of prehistoric cultural change in Southern California area have been attempted numerous times, and several are reviewed in Moratto (2004). No single description is universally accepted as the various chronologies are based primarily on material developments identified by researchers familiar with sites in a particular region and variation exists essentially due to the differences in those items found at the sites. Small differences occur over time and space, which combine to form patterns that are variously interpreted.

Currently, two primary regional culture chronology syntheses are commonly referenced in the archaeological literature. The first, Wallace (1955), describes four cultural horizons or time periods: Horizon I – Early Man (9000–6000 BC), Horizon II – Milling Stone Assemblages (6000–3000 BC), Horizon III – Intermediate Cultures (3000 BC–AD 500), and Horizon IV – Late Prehistoric Cultures (AD 500–historic contact). This chronology was refined (Wallace 1978) using absolute chronological dates obtained after 1955.

The second cultural chronology (Warren 1968) is based broadly on Southern California prehistoric cultures and was also revised (Warren 1984; Warren and Crabtree 1986). Warren's (1984) chronology includes five periods in prehistory: Lake Mojave (7000–5000 BC), Pinto (5000–2000 BC), Gypsum (2000 BC–AD 500), Saratoga Springs (AD 500–1200), and Protohistoric (AD 1200–historic contact). Changes in settlement pattern and subsistence focus are viewed as cultural adaptations to a changing environment, which begins with gradual environmental warming in the late Pleistocene, continues with the desiccation of the desert lakes, followed by a brief return to pluvial conditions, and concludes with a general warming and drying trend, with periodic reversals that continue to the present (Warren and Crabtree 1986).

After AD 500, there was an influx of Native American groups from the eastern deserts into southern California. These groups brought changes in subsistence focus and associated technologies, as well as burial practices. These cultural changes along with the group migrations are known as the Shoshonean Intrusion or Shoshonean Wedge (Kroeber 1925; Koerper 1979) and the Takic Wedge (Bergin and Ferraro 1999). The term Takic Wedge refers to the wedge of Takic culture groups that moved to the coast, displacing tribes of the Hokan and Yuman language stocks to the north and

south (Shipley 1978). The ethnographically recorded Luiseño, Juaneño, and Gabrielino are thought to be the descendants of prehistoric Takic populations that settled along the coast during the Late Prehistoric Period, or perhaps even earlier. The Serrano and Cahuilla, more distant from the coast, are also Takic-speaking tribes within this wedge.

Ethnography

The project area is situated near the boundary of the traditional territories of the Cahuilla (Kroeber 1925; Bean 1978) and Luiseño (Kroeber 1925; Drucker 1939; Heizer and Whipple 1951; Smith and Freers 1994; Earp-Escobar 2018). Tribal territorial boundaries were somewhat fluid and changed over time. The first written accounts of the Cahuilla are attributed to the mission fathers. Later documentation was by Barrows (1900), Hooper (1920), and Strong (1929) among others.

Cahuilla

The territory of the Cahuilla ranged from the San Bernardino Mountains south to Borrego Springs and the Chocolate Mountains, from Orocopia Mountain to the east, to the San Jacinto Plain and Palomar Mountain to the west (Bean 1978). Cahuilla territory lies within the geographic center of Southern California and encompasses diverse environments ranging from inland river valleys and foothills to mountains and desert (Bean and Shipek 1978).

Cahuilla villages, generally located near water sources within canyons or near alluvial fans, comprised groups of related individuals, generally from a single lineage, and the territory around the village was owned by the villagers (Bean 1978). Like other Native American groups in Southern California, the Cahuilla were semi-nomadic peoples leaving their villages and utilizing temporary campsites to exploit seasonably available plant and animal resources (James 1960).

Cahuilla subsistence was based primarily on acorns, honey mesquite, screw beans, piñon nuts, and cactus fruit, supplemented by a variety of wild fruits and berries, tubers, roots, and greens (Kroeber 1925; Heizer and Elsasser 1980). Hunting deer, rabbit, antelope, bighorn sheep, reptiles, small rodents, quail, doves, ducks, and reptiles by means of bows, throwing sticks, traps, and communal drives is documented (James 1960).

Luiseño

The territory of the Luiseño "reached as far northeast as the Santa Ana River and the Box Springs Mountain Range, as far east as Mount San Jacinto, as far southeast as Lake Henshaw, and to the west including the Southern Channel Islands," encompassing an extremely diverse environment that included beaches, lagoons, marshes, inland river valleys, foothills, and mountain groves of oaks and evergreens (Bean and Shipek 1978; Kroeber 1925; Drucker 1939; Heizer and Whipple 1951; Smith and Freers 1994; Earp-Escobar 2018).

The Luiseño lived in small communities, which were the focus of family life. Patrilineally linked, extended families occupied each village (Kroeber 1925; Bean and Shipek 1978). Luiseño villages were politically independent and were administered by a chief who inherited his position from his father. Luiseño villages generally were located in valley bottoms, along streams, or along coastal

strands near mountain ranges sheltered in coves or canyons, near a water source, and in a location that was easily defended.

The Luiseño took advantage of the varied resources available. Luiseño subsistence was based primarily on seeds (e.g., acorns, grass seed, manzanita, sunflower, sage, chía, and pine nuts) that were dried and ground to be cooked into a mush. Their diet also included game animals (e.g., deer, rabbit, jackrabbit, wood rat, mice, antelope, and many types of birds) (Bean and Shipek 1978). They established seasonal camps along the coast and near bays and estuaries to gather shellfish and hunt waterfowl; and they utilized fire for crop management and engaged in communal rabbit drives (Bean and Shipek 1978).

The first written accounts of the Luiseño are attributed to the mission fathers. Later documentation was authored by Sparkman (1908), Kroeber (1925), White (1963), Oxendine (1983), and others.

History

In California, the historic era is generally divided into three periods: the Spanish Period (1769 to 1821), the Mexican Period (1821 to 1848), and the American Period (1848 to present). Early exploration of the Riverside County area was slow until Lieutenant Pedro Fages, then the military governor of San Diego, crossed through the San Jacinto Valley in 1772.

Riverside County

The Southern Pacific Railroad completed its line from Los Angeles through the San Gorgonio Pass in 1876. The trains were eventually used to transport settlers into the area, creating a period of agricultural and land development, ultimately resulting in the establishment of Riverside County in 1893. Transportation, agriculture, and the control of water have continued to be central themes in the settlement, development, and growth of Riverside County (Robinson 1979).

Moreno Valley

Originally platted as “New Haven,” the community of Moreno Valley was renamed Moreno (Spanish for “brown”) in honor of real estate entrepreneur/founder Frank E. Brown who had helped organize the Bear Valley Land and Water Company and instituted an irrigation district that fostered large-scale grain and fruit farming (Holtzclaw et al. 2007). The community thrived during its first few years in the late 1880s and, by 1893, it included a hotel, weekly newspaper, pharmacy, livery stable, stores, offices, two churches, and a nursery; and the surrounding farmland became known as Moreno Valley (Gunther 1984; Brown 1985). The town’s prosperity was short-lived, however, and a drought, combined with the City of Redlands’ water rights claim along the same Bear Valley Pipeline, precipitated its decline in the final years of the 19th century (Brown 1985; Holtzclaw et al. 2007). Many settlers relocated, homes and all, to nearby Riverside (Brown 1985).

Subsequent attempts at municipal revival of the Moreno Valley area in the 20th century were unsuccessful until 1973, when locals created Lake Perris to retain water transported from the Feather River. The new lake provided recreational infrastructure in addition to a reliable water

supply, and stimulated growth throughout Moreno Valley. The communities of Moreno, Sunnymead, and Edgemont were incorporated as the City of Moreno Valley in 1984 (Gunther 1984).

METHODS

Records Search

On March 28, 2019, Ms. Garcia conducted a cultural resources records search for the project area at the Eastern Information Center (EIC) at the University of California, Riverside. The EIC houses the pertinent archaeological site and survey information necessary to determine whether cultural resources are recorded within the study area and which specific areas have been previously surveyed. The research included a review of all recorded historic and prehistoric archaeological sites within one mile of the project, as well as a review of known cultural resource survey and excavation reports. In addition, LSA examined the California State Historic Property Data File (HPD), which includes the National Register of Historic Places (National Register), California Historical Landmarks (CHL), and California Points of Historical Interest (CPHI), various local historic registers, and historic maps.

Additional Research

In March 2019, Mr. Goodwin reviewed historic period maps and aerial photographs and conducted additional online research.

Sacred Lands File Search

On March 18, 2019, a request was sent to the Native American Heritage Commission (NAHC) requesting a Sacred Lands File (SLF) search for this project.

Field Survey

On April 25, 2019, Mr. Goodwin conducted the survey of the project area by walking transects spaced at 10 meters, with particular attention given to rodent burrows and back dirt.

RESULTS

Records Search

Results of the records search at the EIC indicate there have been 15 previous cultural resources studies conducted within a one-mile radius, none of which included any portion of the project area. Although no cultural resources have been documented within the project area, five historic period residences occur within one mile, all eligible for listing in the National Register (Table A). The nearest resource (33-007280) is approximately 0.5 mile to the southwest.

Table A: Cultural Resources Within One Mile with DPR Documentation

Primary #	OHP#	Site Description	Status Code
33-007276	062617	25780 Alessandro Boulevard; c. 1920 residence	3S
33-007279	062620	24771 Bay Avenue/D.C. Hield House; c. 1896 residence	3S
33-007280	062621	24685 Cottonwood Avenue/Rosa More House; c. 1880 residence	3S

Table A: Cultural Resources Within One Mile with DPR Documentation

Primary #	OHP#	Site Description	Status Code
33-007282	062623	26010 Eucalyptus Avenue; c. 1910 residence	3S
33-007284	062625	24638 Fir Avenue; c. 1915 residence	3S

Additional Research

Review of historic period maps and online research indicated there was formerly a residence on the one of the currently undeveloped parcels (APN 479-120-027) constructed prior to 1930 and removed by 2002 (HistoricAerials.com var.). Appendix A contains the Records Search Bibliography.

Sacred Lands File Search

The results of the SLF were negative, i.e., no Traditional Cultural Properties (TCPs) are documented within or near the project parcels (Appendix B).

Field Survey

The field survey revealed that the project area is almost completely obscured by spring growth vegetation and visibility was exceptionally poor throughout the parcels at less than 5 percent. Modern refuse was noted on the surface. Soils are medium to fine sandy alluvial silt.

33-028824/CA-RIV-012934

A utility pole with a 1930 inspection nail, a small (15 feet × 6 feet) slab and a glass bottle fragment dating to the historic period (1910s–1920s) were identified during the survey (Lindsey 2019a, 2019b). These were associated with the house formerly located on APN 479-120-027 (see site record in Appendix C).

RECOMMENDATIONS

A cultural resources records search, additional research, and a field survey were conducted for the project area. No cultural resources were previously documented within or near the project parcels by the records search, and no prehistoric resources are recorded within one mile. However, a residence constructed prior to 1930 was formerly located within the project boundaries and associated features (a utility pole and slab) and a glass bottle fragment dating to the historic period were identified during the survey. While these are (collectively) not a significant resource per se (typical examples of regionally and locally ubiquitous features and artifacts), they are temporal markers and remnant features suggesting limited disturbance. Their cultural resource value has been realized by recordation and their removal does not constitute a significant impact to cultural resources. However, due to the former presence of a pre-Depression Era residence, the project area retains some sensitivity for associated subsurface resources. As archaeological monitoring is part of the standard conditions for the project, no mitigation measures are required.

In the event previously undocumented archaeological resources are identified during earthmoving activities, further work in the area should be halted until the nature and significance of the find can be assessed by a qualified archaeologist.

If human remains are encountered, State Health and Safety Code Section 7050.5. states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to State Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American, the County Coroner will notify the NAHC, which will determine and notify an MLD. With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The MLD recommendations may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials, preservation of Native American human remains and associated items in place, relinquishment of Native American human remains and associated items to the descendants for treatment, or any other culturally appropriate treatment.

REFERENCES

Barrows, David Prescott
1900 *The Ethno-botany of the Coahilla* [sic] *Indians of Southern California*. Chicago: University of Chicago Press.

Bean, Lowell John
1978 Cahuilla. In California, edited by R.F. Heizer, pp. 575–587. *Handbook of North American Indians,* vol. 8, W.C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Bean, Lowell John, and Florence C. Shipek
1978 Luiseño. In *California*, edited by R.F. Heizer, pp. 550–563. *Handbook of North American Indians,* vol. 8, W.C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Beck, Warren A., and Ynez D. Haase
1974 *Historical Atlas of California.* Oklahoma City: University of Oklahoma Press.

Bergin, Kathleen Ann, and David D. Ferraro
1999 Historic Properties Treatment Plan: Geotechnical Investigations of the CP Alignment of the Foothill Transportation Corridor—South, Orange and San Diego Counties, California. LSA Associates, Inc. Ms. on file, LSA Associates, Inc., 20 Executive Park, Suite 200, Irvine, California, 92614; Southwest Division, Naval Facilities Engineering Command, 1220 Pacific Highway, San Diego, California; and AC/S Environmental Security Office, MCB Camp Pendleton, California.

Brown, James T.
1985 *Harvest of the Sun: An Illustrated History of Riverside County.* Windsor Publications, Northridge, California.

California Geological Survey
2002 *California Geomorphic Provinces.* California Geologic Survey Note 36. California Department of Conservation.

Drucker, Phillip
1939 Culture Element Distribution, V, Southern California. *University of California Publications in American Archaeology and Ethnology,* Vol. I.

Earp-Escobar, Molly
2018 Pechanga Tribe Comments on the Cultural Resources Assessment for the PEN 18-0016 ARCO AM/PM Gas Station with Carwash Project in the City of Moreno Valley.

Gunther, Jane D.
1984 *Riverside County, California Place Names: Their Origins and Their Stories*. Riverside: Rubidoux Printing Company.

Heizer, Robert F., and Albert B. Elsasser
1980 *The Natural World of the California Indians*. University of California Press, Berkeley and Los Angeles.

Heizer, Robert F., and M.A. Whipple
1951 *The California Indians.* University of California Press, Berkeley.

Historic Aerials.com
Var. 1966, 1967, and 2002 aerial photographs including the project area.

Holtzclaw, Kenneth, et al.
2007 *Images of America – Moreno Valley.* San Francisco: Arcadia Publishing.

Hooper, Lucile
1920 *The Cahuilla Indians.* University of California Publication in American Archaeology and Ethnology. Vol. 16 No. 6. Reprinted by Malki Museum Press. Banning, California.

James, Harry C.
1960 *The Cahuilla Indians*. Los Angeles: Westernlore Press. Reprinted in 1969 and 1985 by Malki Museum Press. Banning, California.

Koerper, Henry C.
1979 On the Question of the Chronological Placement of Shoshonean Presence in Orange County, California. *Pacific Coast Archaeological Society Quarterly* 15(3):69-84.

Kroeber, A.L.
1925 *Handbook of the Indians of California*. Dover Publications, New York. Bulletin No. 78, Bureau of American Ethnology, Smithsonian Institution, Washington, D.C.

Lindsey, Bill
2019a Bottle/Glass Colors. BLM Klamath Falls, OR (https://sha.org/bottle/colors.htm).
2019b Bottle Body Charateristics and Mold Seams. BLM Klamath Falls, OR (https://sha.org/bottle/body.htm#Body%20Irregularities).

Moratto, Michael J.
2004 *California Archaeology*. Orlando, Florida: Academic Press. Originally published 1984.

Norris, R.M., and R.W. Webb
1976 *Geology of California,* John Wiley and Sons, Inc., Santa Barbara.

Oxendine, Joan
1983 *The Luiseño Village During the Late Prehistoric Era*. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Riverside.

Robinson, W.W.
1979 *Land in California*. University of California Press, Berkeley and Los Angeles.

Schoenherr, Allan A.
1992 *A Natural History of California*. University of California Press, Berkeley and Los Angeles.

Shipley, William F.
1978 Native Languages of California. In R. Heizer ed., *Handbook of North American Indians*, vol. 8, California, pp. 80–90. Smithsonian Institution, Washington D.C.

Smith, Gerald A., and Steven M. Freers
1994 *Fading Images: Indian Pictographs of Western Riverside County*. Riverside Museum Press, Riverside, California.

Sparkman, Philip S.
1908 The Culture of the Luiseño Indians. *University of California Publications in American Archaeology and Ethnology* 8(4). Berkeley.

Strong, William D.
1929 Aboriginal Society in Southern California. *University of California Publications in American Archaeology and Ethnology* 26(1): 1–358. Berkeley.

United States Geological Survey
1968 *Sunnymead, California* 7.5-minute topographic quadrangle map.

Wallace, William J.
1955 A Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology* 11(3):214–230.
1978 Post-Pleistocene Archaeology. In California, edited by R. Heizer, pp. 550–563. *Handbook of North American Indians,* Vol. 8. W.C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Warren, Claude N.
1968 Cultural Tradition and Ecological Adaptation on the Southern California Coast. Eastern New Mexico University Contributions in Anthropology 1(3). Portales.
1984 The Desert Region. In *California Archaeology*, by M. Moratto with contributions by D.A. Fredrickson, C. Raven, and C. N. Warren, pp. 339–430. Academic Press, Orlando, Florida.

Warren, Claude N., and Robert H. Crabtree
1986 Prehistory of the Southwestern Area. *In* W.L. D'Azevedo ed., *Handbook of the North American Indians,* Vol. 11, *Great Basin*, pp. 183–193. Washington D.C.: Smithsonian Institution.

White, Raymond C.
1963 Luiseño Social Organization. *University of California Publications in American Archaeology and Ethnology* 48 (2)

APPENDIX A

RECORDS SEARCH BIBLIOGRAPHY

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-00002	NADB-R - 1080003; Voided - MF-0003	1953	Malcolm J. Rogers	Miscellaneous Field Notes - Riverside County. San Diego Museum of Man	San Diego Museum of Man	
RI-00133	NADB-R - 1080150; Voided - MF-0114	1974	Thomas F. King, Mary A. Brown, Gerrit Fenenge, and Claudia Nissley	Archaeological Impact Evaluation: Southern California Edison Company's Devers-Vista 220 KV Transmission Line, Riverside County, California	Archaeological Research Unit, U.C. Riverside	
RI-00137	NADB-R - 1080155; Voided - MF-0117	1974	James F. O'Conell, Philip J. Wilke, Thomas F,. King, and Carol L. Mix	Perris Reservoir Archaeology, Late Prehistoric Demographic Change in Southeastern California	Archaeological Research Unit, U.C. Riverside	33-000012, 33-000021, 33-000062, 33-000202, 33-000331, 33-000419, 33-000452, 33-000455, 33-000463, 33-000464
RI-00161	NADB-R - 1080200; Voided - MF-0144	1975	Roberta S. Greenwood	Paleontological, Archaeological, Historical, and Cultural Resources, West Coast-Midwest Pipeline Project, Long Beach to Colorado River	Greenwood and Associates	
RI-01665	NADB-R - 1081956; Voided - MF-1759	1983	Wirth Associates	Devers-Serrano-Villa Park Transmission System Supplement to the Cultural Resources Technical Report - Public Review Document and Confidential Appendices	Wirth Associates	33-002529, 33-002530, 33-002531, 33-002591, 33-002592, 33-013336, 33-013366, 33-013545
RI-01786	NADB-R - 1082137; Voided - MF-1930	1983	SCIENTIFIC RESOURCE SURVEYS, INC.	CULTURAL RESOURCE REPORT ON TRACTS 12608, 12606-2 AND 11410 LOCATED IN THE SUNNYMEAD AREA, RIVERSIDE COUNTY, CALIFORNIA	AUTHOR(S)	
RI-01955	NADB-R - 1082349; Voided - MF-2124	1977	HELLER, ROD, TIM TETHEROW, and C. WHITE	AN OVERVIEW OF THE SUNDESERT NUCLEAR PROJECT TRANSMISSION SYSTEM CULTURAL RESOURCE INVESTIGATION	WIRTH ASSOCIATES	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-02171	NADB-R - 1082753; Submitter - 0870; Voided - MF-2358	1987	MCCARTHY, DANIEL F.	CULTURAL RESOURCES INVENTORY FOR THE CITY OF MORENO VALLEY, RIVERSIDE COUNTY, CALIFORNIA	ARCHAEOLOGICAL RESEARCH UNIT, U.C. RIVERSIDE	33-000361, 33-000395, 33-000497, 33-000857, 33-000860, 33-001063, 33-001064, 33-003223, 33-003224, 33-003225, 33-003226, 33-003227, 33-003228, 33-003229, 33-003230, 33-003231, 33-003232, 33-003233, 33-003234, 33-003235, 33-003236, 33-003237, 33-003238, 33-003239, 33-003240, 33-003241, 33-003242, 33-003243, 33-003244, 33-003245, 33-003246, 33-003247, 33-003248, 33-003249, 33-003250, 33-003254, 33-003258, 33-003259, 33-003260, 33-003261, 33-003262, 33-003263, 33-003264, 33-003265, 33-003266, 33-003267, 33-003268, 33-003269, 33-003270, 33-003271, 33-003272, 33-003273, 33-003304, 33-003305, 33-003306, 33-003341, 33-003342, 33-003343, 33-003344, 33-003345, 33-003346, 33-003347, 33-003351, 33-003352, 33-003353
RI-03604	NADB-R - 1084327; Voided - MF-3878	1992	Carleton S. Jones	The Development of Cultural Complexity Among the Luiseno: A Thesis Presented to the Department of Anthropology, California State University, Long Beach in Partial Fulfillment of the Requirements for the Degree, Master of Arts	California State University, Long Beach	
RI-04762	NADB-R - 1083854; Voided - MF-3495	1990	BARKER, LEO R. and ANN E. HUSTON, EDITORS	DEATH VALLEY TO DEADWOOD; KENNECOTT TO CRIPPLE CREEK. PROCEEDINGS OF THE HISTORIC MINING CONFERENCE, JANUARY 23-27, 1989, DEATH VALLEY NATIONAL MONUMENT	Division of National Register Programs National Park Service	
RI-04992	NADB-R - 1086354; Submitter - 10-04-10-1001	2004	MCKENNA ET AL.	AN ARCHITECTURAL EVALUATION OF STRUCTURES LOCATED WITHIN ASSESSOR PARCEL NUMBERS 482-090-009-0, -010-0, AND 033-0, WITHIN THE CITY OF MORENO VALLEY, RIVERSIDE COUNTY, CALIFORNIA.	MCKENNA ET AL.	
RI-05088	NADB-R - 1086450	2005	CULTURAL SYSTEMS RESEARCH, INC.	ETHNOGRAPHIC OVERVIEW INLAND FEEDER PIPELINE PROJECT	CULTURAL SYSTEMS RESEARCH, INC.	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-07539	Submitter - LA2356B Cultural Rpt	2007	Bonner, Wayne H. and Marnie Aislin-Kay	Letter Report: Cultural Resources Records Search and Site Visit for Royal Street Telecommunications, LLC Candidate LA2356B (Sunnymead Plaza), 24903 Sunnymead Boulevard, Moreno Valley, Riverside County, California	Michael Brandman Associates	
RI-08235		2001	James E. Workman	Cupules A Type of Petroglyphic Rock Art. A Study of the Pitted Boulders in the San Jacinto Wildlife Area and the Lake Perris State Recreational Area	Indian Rock Art Specialist	33-000012, 33-000062, 33-000202, 33-000331, 33-000395, 33-000419, 33-000421, 33-000428, 33-000452, 33-000464
RI-08554	Submitter - CRM TECH Project No. 2507; Submitter - CRM TECH Project No. 2507	2011	Michael Hogan, Bai "Tom" Tang, John Goodman, and Daniel Ballester	California Living Moreno Valley Project	CRM TECH	33-007280, 33-007284, 33-007285, 33-007289, 33-007297, 33-017202, 33-017203

APPENDIX B

SACRED LANDS FILE SEARCH RESULTS

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

April 5, 2019

Rory Goodwin
LSA

VIA Email to: rory.goodwin@lsa.net

RE: Perris Blvd. and Dracaea Ave. Commercial Retail Project, Riverside County

Dear Mr. Goodwin:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: steven.quinn@nahc.ca.gov.

Sincerely,

Steven Quinn
Associate Governmental Program Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Riverside County
4/5/2019

Agua Caliente Band of Cahuilla Indians
Jeff Grubbe, Chairperson
5401 Dinah Shore Drive — Cahuilla
Palm Springs, CA, 92264
Phone: (760) 699 - 6800
Fax: (760) 699-6919

Agua Caliente Band of Cahuilla Indians
Patricia Garcia-Plotkin, Director
5401 Dinah Shore Drive — Cahuilla
Palm Springs, CA, 92264
Phone: (760) 699 - 6907
Fax: (760) 699-6924
ACBCI-THPO@aguacaliente.net

Augustine Band of Cahuilla Mission Indians
Amanda Vance, Chairperson
P.O. Box 846 — Cahuilla
Coachella, CA, 92236
Phone: (760) 398 - 4722
Fax: (760) 369-7161
hhaines@augustinetribe.com

Cabazon Band of Mission Indians
Doug Welmas, Chairperson
84-245 Indio Springs Parkway — Cahuilla
Indio, CA, 92203
Phone: (760) 342 - 2593
Fax: (760) 347-7880
jstapp@cabazonindians-nsn.gov

Cahuilla Band of Indians
Daniel Salgado, Chairperson
52701 U.S. Highway 371 — Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 5549
Fax: (951) 763-2808
Chairman@cahuilla.net

Los Coyotes Band of Cahuilla and Cupeño Indians
John Perada, Environmental Director
P. O. Box 189 — Cahuilla
Warner Springs, CA, 92086
Phone: (760) 782 - 0712
Fax: (760) 782-2730

Los Coyotes Band of Cahuilla and Cupeño Indians
Shane Chapparosa, Chairperson
P.O. Box 189 — Cahuilla
Warner Springs, CA, 92086-0189
Phone: (760) 782 - 0711
Fax: (760) 782-0712
Chapparosa@msn.com

Morongo Band of Mission Indians
Robert Martin, Chairperson
12700 Pumarra Rroad — Cahuilla
Banning, CA, 92220 — Serrano
Phone: (951) 849 - 8807
Fax: (951) 922-8146
dtorres@morongo-nsn.gov

Morongo Band of Mission Indians
Denisa Torres, Cultural Resources Manager
12700 Pumarra Rroad — Cahuilla
Banning, CA, 92220 — Serrano
Phone: (951) 849 - 8807
Fax: (951) 922-8146
dtorres@morongo-nsn.gov

Ramona Band of Cahuilla
John Gomez, Environmental Coordinator
P. O. Box 391670 — Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 4105
Fax: (951) 763-4325
jgomez@ramonatribe.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Perris Blvd. and Dracaea Ave. Commercial Retail Project, Riverside County.

Native American Heritage Commission
Native American Contact List
Riverside County
4/5/2019

Ramona Band of Cahuilla
Joseph Hamilton, Chairperson
P.O. Box 391670 Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 4105
Fax: (951) 763-4325
admin@ramonatribe.com

Santa Rosa Band of Cahuilla Indians
Steven Estrada, Chairperson
P.O. Box 391820 Cahuilla
Anza, CA, 92539
Phone: (951) 659 - 2700
Fax: (951) 659-2228
mflaxbeard@santarosacahuilla-nsn.gov

Soboba Band of Luiseno Indians
Scott Cozart, Chairperson
P. O. Box 487 Cahuilla
San Jacinto, CA, 92583 Luiseno
Phone: (951) 654 - 2765
Fax: (951) 654-4198
jontiveros@soboba-nsn.gov

Soboba Band of Luiseno Indians
Joseph Ontiveros, Cultural Resource Department
P.O. BOX 487 Cahuilla
San Jacinto, CA, 92581 Luiseno
Phone: (951) 663 - 5279
Fax: (951) 654-4198
jontiveros@soboba-nsn.gov

Torres-Martinez Desert Cahuilla Indians
Michael Mirelez, Cultural Resource Coordinator
P.O. Box 1160 Cahuilla
Thermal, CA, 92274
Phone: (760) 399 - 0022
Fax: (760) 397-8146
mmirelez@tmdci.org

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Perris Blvd. and Dracaea Ave. Commercial Retail Project, Riverside County.

APPENDIX C

DPR SITE RECORD

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # 33-028824
HRI #
Trinomial CA-RIV- 012934
NRHP Status Code

Other Listings
Review Code Reviewer Date

Page 1 of 4 *Resource Name or #: LSA-CAQ1901-S-1

P1. Other Identifier:
*P2. Location: ☐ Not for Publication ■ Unrestricted *a. County: Riverside, California
and (P2b and P2c or P2d. Attach a Location Map as necessary.)
*b. USGS 7.5' Quad: *Sunnymead* Date: 1980 T 3S; R 3W; NW ¼ of NW ¼ of Sec 8; M.D. SB B.M.
c. Address: Perris Boulevard and Dracaea Avenue City: Moreno Valley Zip: 92557
d. UTM: Zone: 11 ; 4791717 mE/ 3754275 mN (G.P.S. NAD 83)
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) APN 479-120-027
Access to this site from State Route 60 is via Perris Boulevard south (approximately .72 miles)- the resource is approximately 180 feet east of the road.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
Utility pole and slab features along with a glass bottle fragment (see Archaeological Site Record for details).

*P3b. Resource Attributes: (List attributes and codes) AH2 (Foundation/slab) AH16 (power pole, artifact)

*P4. Resources Present: ☐Building ☐Structure ☐Object ■Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5b. Description of Photo: (View, date, accession #) View northwest 4/25/2019; Frame #2175

*P6. Date Constructed/Age and Sources: ■Historic ☐Prehistoric ☐Both
1910s-20s/ Lindsey 2019

*P7. Owner and Address:
Cadence Acquisition LLC
6400 S. Fiddlers Green Circle, St. 1820
Greenwood Village CO 80111

*P8. Recorded by: (Name, affiliation, and address)
Riordan Goodwin
LSA Associates, Inc.
1500 Iowa Avenue, Suite 200
Riverside, California 92507

*P9. Date Recorded:
April 25, 2019

*P10. Survey Type: (Describe)
Intensive pedestrian

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Goodwin, Riordan 2019: Perris Boulebard and Dracaea Avenue Commercial Retail Project, City of Moreno Valley, Riverside County, California.

*Attachments: ☐NONE ■Location Map ■Sketch Map ☐Continuation Sheet ☐Building, Structure, and Object Record ■Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

DPR 523A (1/95) *Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
ARCHAEOLOGICAL SITE RECORD

Primary # 33-028824
Trinomial CA-RIV-012934

 *Resource Name or #: LSA-CAQ1901-S-1

*A1. Dimensions: a. Length: ~220 feet N-S × Width: ~140 feet E-W
Method of Measurement: ☐ Paced ☐ Taped ☐ Visual estimate ■ Other: Google Earth Pro
Method of Determination (Check any that apply.): ■ Artifacts ■ Features ☐ Soil ☐ Vegetation ☐ Topography
☐ Cut bank ☐ Animal burrow ☐ Excavation ☐ Property boundary ☐ Other (Explain):
Reliability of Determination: ■ High ☐ Medium ☐ Low Explain:
Limitations (Check any that apply): ☐ Restricted access ☐ Paved/built over ☐ Site limits incompletely defined
■ Disturbances ☐ Vegetation ☐ Other (Explain):

A2. Depth: ☐ None ■ Unknown Method of Determination:

*A3. Human Remains: ☐ Present ■ Absent ☐ Possible ☐ Unknown (Explain):

*A4. Features (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map.):
15‘ x 6’ remnant slab, utiliy pole (# 215924) with 1930 and 1947 inspection nails.

*A5. Cultural Constituents (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.):
Single clear glass bottle fragment with seed bubbles.

*A6. Were Specimens Collected? ■ No ☐ Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)

*A7. Site Condition: ☐ Good ☐ Fair ■ Poor (Describe disturbances.): House footings/foundations and any related features absent.

*A8. Nearest Water (Type, distance, and direction.): San Antonio Creek is located approximately 1750 east.

*A9. Elevation: approximately 1,600 feet AMSL

A10. Environmental Setting (Describe culturally relevant variables such as vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.): The site is on a vacant lot with extensive modern and temporally ambiguous refuse and debris, mallow, mustard, eucalyptus, red brome, Russian thistle, tree of heaven and xeric grasses were noted.

A11. Historical Information: A residence once stood on this parcel and the associated utility pole has a 1930 inspection nail.

*A12. Age: ☐ Prehistoric ☐ Protohistoric ☐ 1542-1769 ☐ 1769-1848 ☐ 1848-1880 ☐ 1880-1914 ■☐ 1914-1945
☐ Post 1945 ☐ Undetermined **Describe position in regional prehistoric chronology or factual historic dates if known:**
Likely 1910s-1920s

A13. Interpretations (Discuss data potential, function[s], ethnic affiliation, and other interpretations):
It is a typical example of a common resource type: a remnant building foundation and related feature lacking substantial associated surface artifacts or significant historical association. However, it dates prior to the Depression Era and therefore retains some potential forsubsurface features or artifacts (i.e. a privy or refuse deposit).

A14. Remarks: There was only one artifact identified in *potential* associated with these features.

A15. References (Documents, informants, maps, and other references):
Lindsey, Bill
2019a Bottle/Glass Colors. BLM Klamath Falls OR (https://sha.org/bottle/colors.htm)
2019b Bottle Body Charateristics and Mold Seams. BLM Klamath Falls OR (https://sha.org/bottle/body.htm#Body%20Irregularities)

A16. Photographs (List subjects, direction of view, and accession numbers or attach a Photograph Record.):
Frames 2157- 2160, 2165-2169, 2173-2177

Original Media/Negatives Kept at: LSA Associates, Inc., 1500 Iowa Avenue, Suite 200, Riverside, CA 92507

*A17. Form Prepared by: Riordan Goodwin **Date:** 5/8/19
Affiliation and Address: LSA Associates, Inc., 1500 Iowa Avenue, Suite 200, Riverside, CA 92507

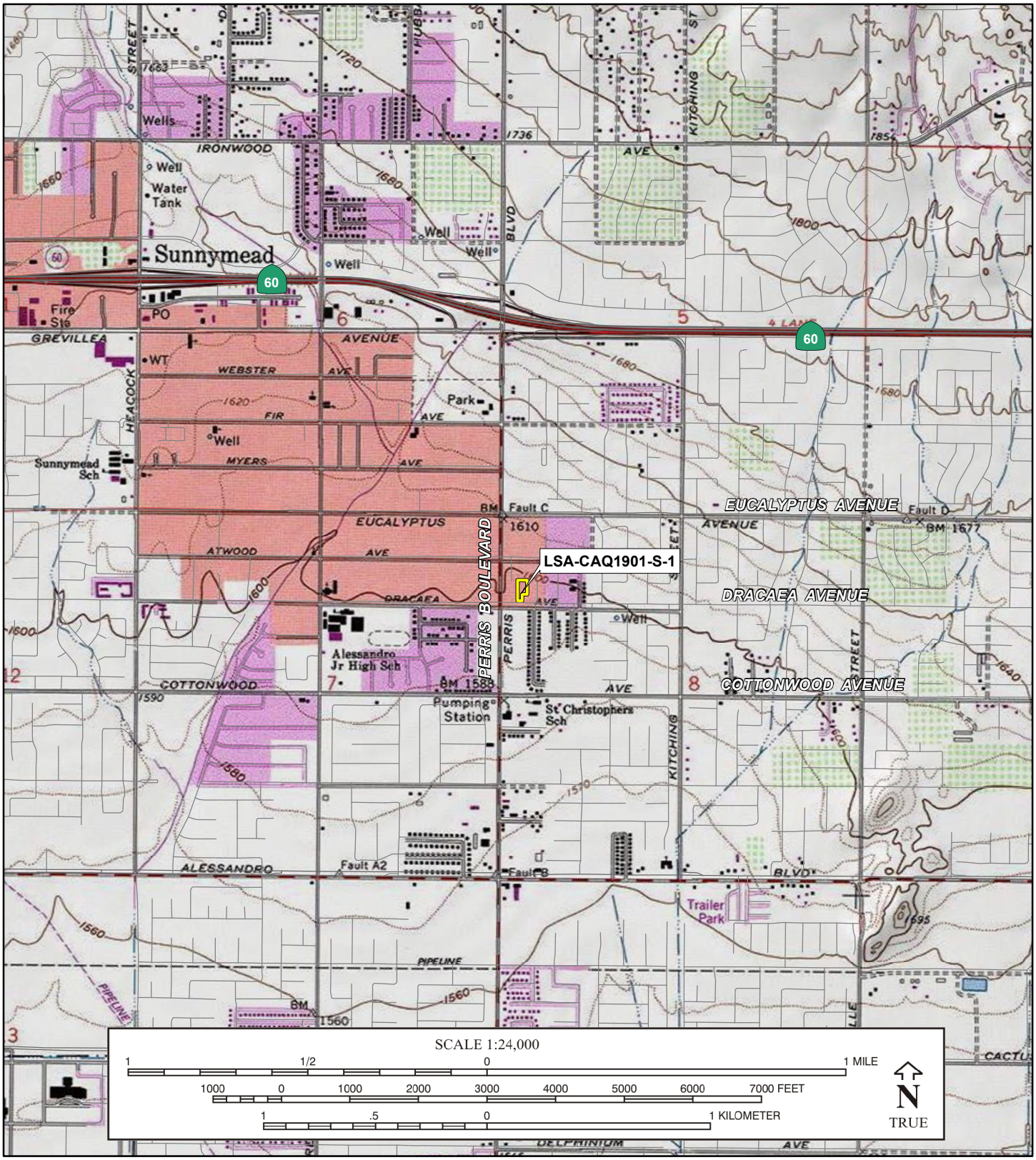
DPR 523C (1/95) *Required information

State of California - Resource Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary # 33-028824
HRI #
Trinomial CA-RIV-012934

*Resource Name or # (Assigned by recorder) LSA-CAQ1901-S-1

*Map Name: USGS 7.5' Quad, Sunnymead *Scale: 1:24000 *Date of Map: 1980



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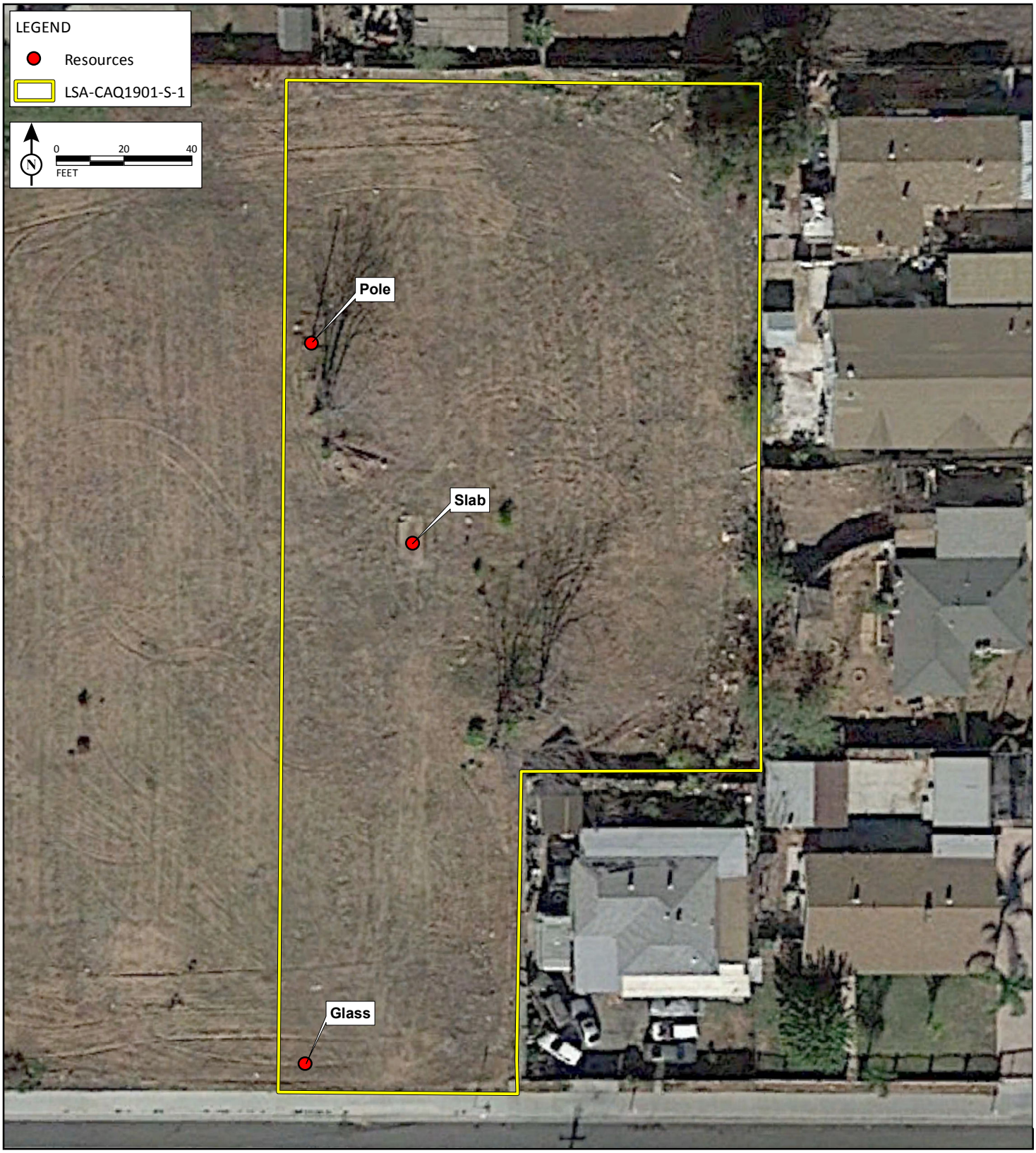
*Requ

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
SITE MAP

Primary # 33-028824
HRI #
Trinomial CA-RIV-012934

Page 4 of 4 *Resource Name or # (Assigned by recorder) LSA-CAQ1901-S-1

*Drawn By: R. Goodwin *Date: May 14, 2019



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* Required Information

DPR 523K (1/95)

Appendix D:

Noise and Vibration Impact Analysis Memorandum for the Commercial Retail Project at Perris Boulevard and Dracaea Avenue in the City of Moreno Valley, California

LSA

CARLSBAD
FRESNO
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

MEMORANDUM

DATE: September 11, 2020

TO: Dave Runberg, Cadence Acquisition LLC
Joey Ly, TAIT & Associates

FROM: Jason Lui, Associate/Senior Noise Specialist

SUBJECT: Noise and Vibration Impact Analysis Memorandum for the Commercial Retail Project at Perris Boulevard and Dracaea Avenue in the City of Moreno Valley, California

INTRODUCTION

This memorandum has been prepared to evaluate potential noise and vibration impacts associated with the proposed Commercial Retail Project at Perris Boulevard and Dracaea Avenue in Moreno Valley, California (project). This report provides a project-specific noise and vibration impact analysis by examining the impacts of the proposed project on nearby sensitive uses.

PROJECT DESCRIPTION

The project includes development of a 3,000-square-foot restaurant with drive through lane and a 4,088-square-foot convenience store with fuel pumps. The fueling station will include 12 fueling positons (6 multi-product dispensers [MPDs]). The convenience store and fuel pumps would operate 24 hours. Development of the project is proposed on a 2.3-acre site at the northeast corner of Perris Boulevard and Dracaea Avenue and encompasses Assessor's Parcel Numbers 479-120-042, 027, 029, and 043.

Access to the project site would be provided via two driveways: one on Perris Boulevard and the other on Dracaea Avenue. The project will also have an access from Atwood Avenue via Sunset Lane. Figure 1 illustrates the project's location, and Figure 2 illustrates the conceptual site plan for the project (all figures are provided in Attachment A of this document).

CHARACTERISTICS OF SOUND

Sound is increasing to such disagreeable levels in the environment that it can threaten quality of life. Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect the ability to hear. Pitch is the number of complete vibrations, or cycles per second, of a wave resulting in the tone's range from high to low. Loudness is the strength of a sound that describes a noisy or quiet environment and is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves combined with the

reception characteristics of the human ear. Sound intensity is the average rate of sound energy transmitted through a unit area perpendicular to the direction in which the sound waves are traveling. This characteristic of sound can be precisely measured with instruments. The analysis of a project defines the noise environment of the project area in terms of sound intensity and its effect on adjacent sensitive land uses.

Measurement of Sound

Sound intensity is measured through the A-weighted scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies. Unlike the linear scale (e.g., inches or pounds), decibels are measured on a logarithmic scale representing points on a sharply rising curve.

For example, 10 decibels (dB) is 10 times more intense than 0 dB, 20 dB is 100 times more intense than 0 dB, and 30 dB is 1,000 times more intense than 0 dB. Thirty decibels (30 dB) represents a 1,000 times as much acoustic energy as 0 dB. The decibel scale increases on a logarithmic scale, representing the sound pressure energy. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10 dB increase in sound level is perceived by the human ear as only a doubling of the loudness of the sound. Ambient sounds generally range from 30 dB (very quiet) to 100 dB (very loud).

Sound levels are generated from a source, and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with increasing distance from the noise source. For a single point source, sound levels decrease approximately 6 dB for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by stationary equipment. If noise is produced by a line source (e.g., highway traffic or railroad operations) the sound decreases 3 dB for each doubling of distance in a hard site environment. Line source (noise in a relatively flat environment with absorptive vegetation) decreases 4.5 dB for each doubling of distance.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. The equivalent continuous sound level (L_{eq}) is the total sound energy of time-weighted average noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq} and Community Noise Equivalent Level (CNEL) or the day-night average noise level (L_{dn}) based on A-weighted decibels (dBA). CNEL is the time-varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours), and a 10 dBA weighting factor applied to noises occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale but without the adjustment for events occurring during the evening hours. CNEL and L_{dn} are within 1 dBA of each other and are normally interchangeable. The City uses the CNEL noise scale for long-term noise impact assessment.

Other noise rating scales of importance when assessing the annoyance factor include the maximum instantaneous noise level (L_{max}), which is the highest sound level that occurs during a stated time

period. The noise environments discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by L_{max}, which reflects peak operating conditions and addresses the annoying aspects of intermittent noise. It is often used together with another noise scale, or noise standards in terms of percentile noise levels, in noise ordinances for enforcement purposes. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same.

Noise impacts can be described in three categories. The first category includes audible impacts that refer to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3 dB or greater because this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1 dB and 3 dB. This range of noise levels has been found to be noticeable only in laboratory environments. The last category includes changes in noise levels of less than 1 dB, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant.

Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear, even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear (the threshold of pain). A sound level of 160–165 dBA will result in dizziness or loss of equilibrium. The ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less developed area. Table A lists definitions of acoustical terms, and Table B shows common sound levels and their sources.

FUNDAMENTALS OF VIBRATION

Vibration refers to ground-borne noise and perceptible motion. Ground-borne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may be discernible, but without the effects associated with the shaking of a building there is less adverse reaction. Vibration energy propagates from a source through intervening soil and rock layers to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by occupants as the motion of building surfaces, the rattling of items sitting on shelves or hanging on walls, or a low-frequency rumbling noise. The rumbling noise is caused by the vibration of walls, floors, and ceilings that radiate sound waves. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by 10 dB or less. This is an order of magnitude below the damage threshold for normal buildings.

LSA

Table A: Definitions of Acoustical Terms

Term	Definitions
Decibel, dB	A unit of measurement that denotes the ratio between two quantities that are proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, Hz	Of a function periodic in time, the number of times that the quantity repeats itself in 1 second (i.e., number of cycles per second).
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter deemphasizes the very low- and very high-frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. (All sound levels in this report are A-weighted, unless reported otherwise.)
L_{01}, L_{10}, L_{50}, L_{90}	The fast A-weighted noise levels that are equaled or exceeded by a fluctuating sound level 1%, 10%, 50%, and 90% of a stated time period.
Equivalent Continuous Noise Level, L_{eq}	The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time-varying sound.
Community Noise Equivalent Level, CNEL	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 dBA to sound levels occurring in the evening from 7:00 PM to 10:00 PM and after the addition of 10 dBA to sound levels occurring in the night between 10:00 PM and 7:00 AM.
Day/Night Noise Level, L_{dn}	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 dBA to sound levels occurring in the night between 10:00 PM and 7:00 AM.
L_{max}, L_{min}	The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.
Ambient Noise Level	The all-encompassing noise associated with a given environment at a specified time; usually a composite of sound from many sources at many directions, near and far; no particular sound is dominant.
Intrusive	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content, as well as the prevailing ambient noise level.

Source: *Handbook of Acoustical Measurements and Noise Control* (Harris 1991).

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Table B: Common Sound Levels and Their Noise Sources

Noise Source	A-Weighted Sound Level in Decibels	Noise Environments	Subjective Evaluations
Near Jet Engine	140	Deafening	128 times as loud
Civil Defense Siren	130	Threshold of Pain	64 times as loud
Hard Rock Band	120	Threshold of Feeling	32 times as loud
Accelerating Motorcycle at a Few Feet Away	110	Very Loud	16 times as loud
Pile Driver; Noisy Urban Street/Heavy City Traffic	100	Very Loud	8 times as loud
Ambulance Siren; Food Blender	95	Very Loud	—
Garbage Disposal	90	Very Loud	4 times as loud
Freight Cars; Living Room Music	85	Loud	—
Pneumatic Drill; Vacuum Cleaner	80	Loud	2 times as loud
Busy Restaurant	75	Moderately Loud	—
Near Freeway Auto Traffic	70	Moderately Loud	—
Average Office	60	Quiet	One-half as loud
Suburban Street	55	Quiet	—
Light Traffic; Soft Radio Music in Apartment	50	Quiet	One-quarter as loud
Large Transformer	45	Quiet	—
Average Residence without Stereo Playing	40	Faint	One-eighth as loud
Soft Whisper	30	Faint	—
Rustling Leaves	20	Very Faint	—
Human Breathing	10	Very Faint	Threshold of Hearing
—	0	Very Faint	—

Source: Compiled by LSA Associates, Inc. (2015).

Typical sources of ground-borne vibration are construction activities (e.g., blasting, pile-driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Problems with both ground-borne vibration and noise from these sources are usually localized to areas within approximately 100 feet (ft) from the vibration source, although there are examples of ground-borne vibration causing interference out to distances greater than 200 ft (Federal Transit Authority's [FTA] 2018 *Transit Noise and Vibration Impact Assessment Manual*). When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible. It is assumed for most projects that the roadway surface will be smooth enough that ground-borne vibration from street traffic will not exceed the impact criteria; however, both construction of the project and the freight train operations could result in ground-borne vibration that may be perceptible and annoying.

Ground-borne noise is not likely to be a problem because noise arriving via the normal airborne path will usually be greater than ground-borne noise. Ground-borne vibration has the potential to disturb people and damage buildings. Although it is very rare for train-induced ground-borne vibration to cause even cosmetic building damage, it is not uncommon for construction processes such as

blasting and pile-driving to cause vibration of sufficient amplitudes to damage nearby buildings (FTA 2018). Ground-borne vibration is usually measured in terms of vibration velocity, either the root-mean-square (RMS) velocity or peak particle velocity (PPV). The RMS is best for characterizing human response to building vibration, and PPV is used to characterize potential for damage. Decibel notation acts to compress the range of numbers required to describe vibration. Vibration velocity level in decibels is defined as:

$$L_v = 20 \log_{10} [V/V_{ref}]$$

where: "L_v" is the vibration velocity in decibels (VdB),

"V" is the RMS velocity amplitude, and

"V_{ref}" is the reference velocity amplitude, or

1 x 10-6 inches/second (in/sec) used in the United States.

Table C illustrates human response to various vibration levels, as described in the *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).

Table C: Human Response to Different Levels of Ground-Borne Noise and Vibration

Vibration Velocity Level	Noise Level		Human Response
	Low Frequency[1]	Mid Frequency[2]	
65 VdB	25 dBA	40 dBA	Approximate threshold of perception for many humans. Low-frequency sound is usually inaudible; mid-frequency sound is excessive for quiet sleeping areas.
75 VdB	35 dBA	50 dBA	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find transit vibration at this level unacceptable. Low-frequency noise is acceptable for sleeping areas; mid-frequency noise is annoying in most quiet occupied areas.
85 VdB	45 dBA	60 dBA	Vibration is acceptable only if there are an infrequent number of events per day. Low-frequency noise is unacceptable for sleeping areas; mid-frequency noise is unacceptable even for infrequent events with institutional land uses, such as schools and churches.

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).

1. Approximate noise level when vibration spectrum peak is near 30 Hz.
2. Approximate noise level when vibration spectrum peak is near 60 Hz.

dBA = A-weighted decibels
FTA = Federal Transit Administration
Hz = Hertz
VdB = vibration velocity decibels

Factors that influence ground-borne vibration and noise include the following:

- **Vibration Source:** Vehicle suspension, wheel types and condition, railroad track/roadway surface, railroad track support system, speed, transit structure, and depth of vibration source.
- **Vibration Path:** Soil type, rock layers, soil layering, depth to water table, and frost depth.
- **Vibration Receiver:** Foundation type, building construction, and acoustical absorption.

Among the factors listed above, there are significant differences in the vibration characteristics when the source is underground compared to at the ground surface. In addition, soil conditions are known to have a strong influence on the levels of ground-borne vibration. Among the most important factors are the stiffness and internal damping of the soil and the depth to bedrock.

Experience with ground-borne vibration indicates: (1) vibration propagation is more efficient in stiff, clay soils than in loose, sandy soils; and (2) shallow rock seems to concentrate the vibration energy close to the surface and can result in ground-borne vibration problems at large distances from a railroad track. Factors such as layering of the soil and the depth to the water table can have significant effects on the propagation of ground-borne vibration. Soft, loose, sandy soils tend to attenuate more vibration energy than hard, rocky materials. Vibration propagation through groundwater is more efficient than through sandy soils.

REGULATORY SETTING

Federal Regulations

Federal Transit Administration

Vibration standards included in the FTA's *Transit Noise and Vibration Impact Assessment Manual* (2018) are used in this analysis for ground-borne vibration impacts on human annoyance, as shown in Table D. Table D provides the criteria for assessing the potential for interference or annoyance from vibration levels in a building.

Table D: Interpretation of Vibration Criteria for Detailed Analysis

Land Use	Max L_v (VdB)[1]	Description of Use
Workshop	90	Distinctly feelable vibration. Appropriate to workshops and non-sensitive areas.
Office	84	Feelable vibration. Appropriate to offices and non-sensitive areas.
Residential Day	78	Feelable vibration. Appropriate for computer equipment and low-power optical microscopes (up to 20X).
Residential Night and Operating Rooms	72	Vibration not feelable, but ground-borne noise may be audible inside quiet rooms. Suitable for medium-power microscopes (100X) and other equipment of low sensitivity.

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).

[1] As measured in 1/3-Octave bands of frequency over the frequency range 8 to 80 Hertz.

FTA = Federal Transit Administration

L_V = velocity in decibels

VdB = vibration velocity decibels

The criteria for environmental impact from ground-borne vibration and noise are based on the maximum levels for a single event. Table E lists the potential vibration building damage criteria associated with construction activities, as suggested in the *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018). FTA guidelines show that a vibration level of up to 102 VdB (equivalent to 0.5 in/sec in PPV) (FTA 2018) is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster) and would not result in any construction vibration damage. For a non-engineered timber and masonry building, the construction building vibration damage criterion is 94 VdB (0.2 in/sec in PPV).

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Table E: Construction Vibration Damage Criteria

Building Category	PPV (in/sec)	Approximate L_V (VdB)[1]
Reinforced concrete, steel, or timber (no plaster)	0.50	102
Engineered concrete and masonry (no plaster)	0.30	98
Non-engineered timber and masonry buildings	0.20	94
Buildings extremely susceptible to vibration damage	0.12	90

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).

[1] RMS vibration velocity in decibels (VdB) re 1 µin/sec.

µin/sec = microinches per second
FTA = Federal Transit Administration
in/sec = inch/inches per second
L_V = velocity in decibels
PPV = peak particle velocity
RMS = root-mean-square
VdB = vibration velocity decibels

Local Regulations

City of Moreno Valley

General Plan Safety Element. The City of Moreno Valley addresses noise in the City's Safety Element of the General Plan. The goals, objectives, and policies in the City's General Plan are designed to provide noise compatible land use relationships by establishing noise standards utilized for design and siting purposes and minimize noise impacts from significant noise generators. The following policies are applicable to the proposed project:**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.

- **Policy 6.4.2:** Construction activities shall be operated in a manner that limits noise impacts on surrounding uses.

- **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.

Municipal Code. Section 8.21.050(O) states that grading and equipment operations shall only be completed between the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday, excluding holidays and from 8:00 a.m. to 4:00 p.m. on Saturday.

Section 9.09.080(C)(1) states that a drive-in, drive-through, fast food or take-out restaurant shall not open prior to 6:00 a.m., nor remain open after 10:00 p.m when located adjacent to or separated by an alley from any residentially zoned property. In addition, Section 9.09.080(C)(6) states that any drive-up or drive-through speaker system shall not be detectable above daytime ambient noise levels beyond the property boundaries. The system shall be designed to compensate for ambient noise levels in the immediate area, and shall not be located within one hundred (100) ft of any residential district or any property used for residential uses. It should be noted that Section 9.09.020 of the City's Municipal Code allows the decision-making body discretion to allow alternative drive-through operations that "adequately protect[s] the public health, safety and welfare."

Section 11.80.030(C) of the City's Municipal Code establishes limits on non-impulsive noise where no person shall maintain, create, operate, or cause noise on private property to not exceed the noise standards shown in Table F for the source land use category when measured at a distance of

200 ft from the property line of the source of the noise, if the noise 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. Noise levels that exceed the noise standards in Table G shall be deemed to be a noise disturbance.

Table F: Maximum Sound Levels for Source Land Uses

Residential		Commercial	
Daytime[1]	Nighttime[2]	Daytime[1]	Nighttime[2]
60 dBA[3]	55 dBA[3]	65 dBA[3]	60 dBA[3]

Source: Section 11.80.030(C) of the City of Moreno Valley *Municipal Code*.

[1] Daytime means 8:00 a.m. to 10:00 p.m.

[2] Nighttime means 10:01 p.m. to 7:59 a.m.

[3] Noise levels that are non-impulsive are interrupted to be in equivalent continuous sound level (L_{eq}). Noise level standard when measured at a distance of 200 ft from the property line of the source of the noise.

dBA = A-weighted decibels

Table G: Long-Term Ambient Noise Monitoring Results

Monitoring No.	Location	Start Date	Start Time	Duration (hrs)	Daytime Noise Level (dBA L_{eq})	Evening Noise Level (dBA L_{eq})	Nighttime Noise Level (dBA L_{eq})	dBA CNEL
LT-1	Northern project boundary at 13182 Sunset Lane, Moreno Valley, California.	7/22/19	10:00 am	48	54-61	55-59	50-61	63
LT-2	Eastern project boundary at 13182 Sunset Lane, Moreno Valley, California.	10/9/18	10:00 am	48	49-59	55-58	50-59	62

Source: Compiled by LSA Associates, Inc. (2020).
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels
hrs = hours
L_{eq} = equivalent continuous sound level

Section 11.80.030(D)(7) of the City's Municipal Code limits construction and demolition activities to between the hours of 7:00 a.m. and 8:00 p.m. every day. No person shall operate or allow the operation of any tools or equipment used in construction, drilling, repair, or alteration or demolition work outside of these hours to prevent noise disturbances.

Section 9.10.170 of the Municipal Code prohibits vibration that can be felt at or beyond the property line. However, construction activity is exempt from Section 9.10.170 pursuant to Section 9.10.030, which states temporary construction, maintenance, or demolition activities between the hours of 7:00 a.m. and 7:00 p.m. are exempt from the provisions of Chapter 9.10 (Performance Standards) of the City Municipal Code.

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EXISTING SETTING

Overview of the Existing Noise Environment

The primary existing noise sources in the project area are transportation facilities. Traffic on Perris Boulevard and Dracaea Avenue is a steady source of ambient noise.

Existing Sensitive Land Uses in the Project Vicinity

The project site is surrounded by single-family residences, vacant land, and commercial uses. Single-family residences are located north, east, and west of the project site. Commercial uses and vacant land are located west and south, respectively. The closest residence is located within 50 ft of the boundary of the proposed project site.

Ambient Noise Measurements

Long-Term Noise Level Measurement

Two long-term (48-hour) noise level measurements were conducted from July 22, 2019, to July 24, 2019, using Larson Davis Spark Model 706RC Dosimeters. Table G shows the equivalent continuous sound level (L_{eq}) range during daytime, evening, and nighttime hours as well as the calculated CNEL levels. The hourly L_{eq} results from the long-term measurements are shown in Attachment B. As shown in Table G, the calculated CNEL levels range from 62 to 63 dBA CNEL. Figure 3 in Attachment A shows the long-term noise monitoring locations.

Existing Aircraft Noise

Airport-related noise levels are primarily associated with aircraft engine noise made while aircraft are taking off, landing, or running their engines while still on the ground. The closest airport to the proposed project site is March Air Force Base (RIV) located approximately 2.8 miles southwest of the project site. Based on the Riverside County Airport Land Use Compatibility Plan (Riverside County, November 2014) the project is located outside of the 60 dBA CNEL noise contour of the airport. In addition, there are no private airstrips or heliports within 2 miles of the project site.

Existing Traffic Noise

The Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) was used to evaluate traffic-related noise conditions along roadway segments in the project vicinity. This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The resultant noise levels are weighted and summed over 24-hour periods to determine the CNEL values. The existing average daily traffic (ADT) volumes were calculated based on existing ADT volumes obtained from the *Transportation Impact Analysis for the Perris/Dracaea Commercial Project* (LSA 2020b). The standard vehicle mix for Southern California roadways was used for traffic on these roadway segments. Table H provides the existing traffic noise levels in the project vicinity. These traffic noise levels are representative of a worst-case scenario that assumes a flat terrain and no shielding between the traffic and the noise contours. Attachment C provides the specific assumptions used in developing these noise levels and model printouts.

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Table H: Existing Without Project Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 dBA CNEL (ft)	Centerline to 65 dBA CNEL (ft)	Centerline to 60 dBA CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane
Perris Boulevard between Eucalyptus Avenue and Atwood Avenue	31,829	71	136	286	68.5
Perris Boulevard between Atwood Avenue and Dracaea Avenue	30,997	70	134	281	68.4
Perris Boulevard between Dracaea Avenue and Cottonwood Avenue	29,577	66	129	272	68.4
Dracaea Avenue between Perris Boulevard and Project Driveway 2	4,912	< 50	< 50	67	60.4
Sunset Lane South of Atwood Avenue	38	< 50	< 50	< 50	36.5

Source: Compiled by LSA Associates, Inc. (2020).
Notes: Traffic noise within 50 ft of the roadway centerline should be evaluated with site-specific information.
ADT = average daily traffic
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels
ft = foot/feet

IMPACTS

Short-Term Construction Noise Impacts

Two types of short-term noise impacts would occur during construction on the project site. First, construction crew commutes and the transport of construction equipment to the project site would incrementally increase noise levels on access roads leading to the site. There would be a relatively high single-event noise exposure potential causing intermittent noise from large trucks passing at 50 ft that would generate up to a maximum of 84 dBA. The grading phase would generate the highest daily construction vehicle trips based on the California Emission Estimator Model (Version 2016.3.2) output, shown in Attachment C of the *Air Quality and Greenhouse Gas Analysis for the Commercial Retail Project at Perris Boulevard and Dracaea Avenue* (LSA 2020a) prepared for the proposed project. Project construction vehicle trips associated with construction crew commute trips and transport of construction equipment are estimated to reach up to 26 vehicles per hour or 201 vehicles per day (roundtrip) during the grading construction phase. Perris Boulevard and Dracaea Avenue would be used to access the project site, which has estimated existing hourly/daily traffic volumes of 2,958/29,577 and 491/4,912, respectively. Construction-related traffic would increase hourly traffic noise levels by up to 0.2 dBA and would not increase daily traffic noise levels along Perris Boulevard and Dracaea Avenue. A noise level increase of less than 3 dBA would not be perceptible to the human ear in an outdoor environment. Therefore, no noise impacts from short-term construction-related traffic associated with worker commutes and equipment transport to the project site would occur.

The second type of short-term noise impact is related to noise generated during construction activities on the project site. Construction is completed in discrete steps, each of which has its own mix of equipment, and consequently, its own noise characteristics. These various sequential phases would change the character of noise generated on the project site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment,

similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table I lists the typical construction equipment noise levels (L_{max}) recommended for noise impact assessments, based on a distance of 50 ft between the equipment and a noise receptor.

Table I: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor (%)	Maximum Noise Level (L_{max}) at 50 ft[1]
Concrete/Industrial Saw	20	90
Dozers	40	85
Dump Trucks	40	84
Excavators	40	85
Flat Bed Trucks	40	84
Graders	40	85
Front-End Loaders	40	80
Man Lifts	20	85
Pickup Trucks	40	55
Scrapers	40	85

Source: FHWA Highway Construction Noise Handbook, Table 9.1 (FHWA 2006).
Note: Noise levels reported in this table are rounded to the nearest whole number.
1. Maximum noise levels were developed based on Spec 721.560 from the Central Artery/Tunnel program to be consistent with the City of Boston's Noise Code for the "Big Dig" project.
ft = foot/feet
L_{max} = maximum instantaneous sound level
Spec = specification

Typical noise levels range up to 88 dBA L_{max} at 50 ft during the noisiest construction phases. The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery such as backfillers, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders.

Site preparation is expected to require the use of bulldozers, graders, and water trucks/pickup trucks. Noise associated with the use of construction equipment is estimated to be between 55 and 85 dBA L_{max} at a distance of 50 ft from the active construction area for the site preparation phase. As shown in Table I, the maximum noise level generated by each grader and bulldozer is assumed to be approximately 85 dBA L_{max} at 50 ft. The maximum noise level generated by water trucks/pickup trucks is approximately 55 dBA L_{max} at 50 ft from these vehicles. Each doubling of the sound sources with equal strength increases the noise level by 3 dBA. Assuming that each piece of construction equipment operates at some distance from the other equipment, the worst-case combined noise level during this phase of construction would be 88 dBA L_{max} at a distance of 50 ft from the active construction area. Based on a usage factor of 40 percent, the worst-case combined noise level during this phase of construction would be 84 dBA L_{eq} at a distance of 50 ft from the active construction area.

The closest residential property lines are located within 50 ft immediately adjacent to the northern and eastern project construction boundary and would be subject to short-term construction noise levels of 88 dBA L_{max} (84 dBA L_{eq}) or higher when construction occurs at the project construction boundary. Although noise generated by project construction activities would result in a temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project, the compliance with the construction hours specified in the City's Municipal Code in Sections 8.21.050(O) and 11.80.030(D)(7), the use of construction equipment with noise mufflers that are properly operating and maintained, placing construction staging areas away from off-site sensitive uses, and placing all stationary construction equipment so that the emitted noise is directed away from sensitive receptors would minimize construction noise impacts. Therefore, no construction noise impacts would occur with the implementation of the minimization measures described above.

Short-Term Construction Vibration Impacts

This construction vibration impact analysis discusses the level of human annoyance using vibration levels in VdB and will assess the potential for building damage using vibration levels in PPV (in/sec). As shown in Table E, the FTA guidelines indicate that a vibration level up to 102 VdB (equivalent to 0.5 PPV [in/sec]) is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster), and would not result in any construction vibration damage (FTA 2018). For a non-engineered timber and masonry building, the construction vibration damage criterion is 94 VdB (0.2 PPV [in/sec]). For a fragile building, the construction vibration damage criterion is 90 VdB (0.12 PPV [in/sec]).

Table J shows the PPV and VdB values at a distance of 25 ft from the construction vibration source. As shown in Table J, large bulldozers and other heavy-tracked construction equipment (except for pile drivers and vibratory rollers) generate approximately 87 VdB of ground-borne vibration when measured at a distance of 25 ft, based on the *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018). Project construction is expected to use a small bulldozer, large bulldozer, and a loaded truck, which would generate 58 VdB (0.003 PPV [in/sec]), 87 VdB (0.089 PPV [in/sec]), and 86 VdB (0.076 PPV [in/sec] at 25 ft, respectively. The greatest levels of vibration are anticipated to occur during the site preparation and grading phase. All other phases are expected to result in lower vibration levels. The distance to the nearest buildings for vibration impact analysis is measured between the nearest off-site buildings and the project boundary (assuming the construction equipment would be used at or near the project boundary) because vibration impacts occur normally within the buildings. An exception to this would be the location of loaded trucks because they would be limited to a certain areas on the project site and would not operate at the project construction boundary.

The formula for vibration transmission is provided below.

$$L_vdB\ (D) = L_vdB\ (25\ feet) - 30\ Log\ (D/25)$$

$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$

Table J: Vibration Source Amplitudes for Construction Equipment

Equipment	Reference PPV/L_V at 25 ft	
	PPV (in/sec)	L_V (VdB)[1]
Hoe Ram	0.089	87
Large Bulldozer	0.089	87
Caisson Drilling	0.089	87
Loaded Trucks	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
1. RMS VdB re 1 µin/sec.

µin/sec = microinches per second
ft = foot/feet
FTA = Federal Transit Administration
in/sec = inches per second
L_V = velocity in decibels
PPV = peak particle velocity
RMS = root-mean-square
VdB = vibration velocity in decibels

Table K lists the projected vibration levels from various construction equipment expected to be used on the project site to the nearest buildings in the project vicinity. As shown in Table K, residential structures located east of the project would experience the highest construction vibration levels of up to 94 VdB (0.191 PPV [in/sec]). This vibration level would have the potential to result in community annoyance and because vibration levels would exceed the FTA's community annoyance threshold of 78 VdB for residential uses. However, this vibration level would not have the potential to damage residential structures because vibration levels would not exceed the FTA's damage threshold of 94 VdB (0.2 PPV [in/sec]) for residential structures constructed of non-engineered timber and masonry. Other residential and commercial structures in the project area shown in Table K would experience lower vibration levels due to either the use of a small bulldozer or greater distance from the project construction boundary.

Table K: Summary of Construction Vibration Levels

Land Use	Direction	Equipment/ Activity	Reference Vibration Level (VdB) at 25 ft	Reference Vibration Level (PPV) at 25 ft	Distance[1] (ft)	Maximum Vibration Level (VdB)	Maximum Vibration Level (PPV)
Residential	North	Small Bulldozer	58	0.003	8	73	0.017
		Loaded Trucks	86	0.076	15	93	0.164
Residential	East	Large Bulldozer	87	0.089	15	94	0.191
		Loaded Trucks	86	0.076	15	93	0.164
Residential	Southeast	Small Bulldozer	58	0.003	8	73	0.017
		Loaded Trucks	86	0.076	15	93	0.164
Residential/ Commercial	West	Large Bulldozer	87	0.089	130	66	0.008
		Loaded Trucks	86	0.076	130	65	0.006

Source: Compiled by LSA Associates, Inc. (2020).
1 Distance reflects the nearest structure to the nearest project construction boundary.
ft = foot/feet
PPV = peak particle velocity
VdB = vibration velocity decibels

As the project is expected to use both small and large bulldozers on the project site, the project will be conditioned to operate only small bulldozers within 15 ft of the residential structures immediately north and southeast of the project to ensure vibration levels would not exceed the FTA's damage threshold of 94 VdB (0.2 PPV [in/sec]) for structures constructed of non-engineered timber and masonry. This condition would be incorporated onto the project grading plans, and directional signage would be placed on the construction site to direct equipment operators. Established City procedures for plan check, permit issuance, and construction inspection would ensure project implementation consistent with the conditions of approval. The resulting vibration levels, and therefore community annoyance, along the adjacent property lines to the north and southeast would be temporary and sporadic, and they would cease upon completion of grading activities. In addition, compliance with Sections 8.21.050(O) and 9.10.030 of the City's Municipal Code to ensure grading activities are restricted to within the permissible hours of operation (between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between the hours of 8:00 a.m. and 4:00 p.m. on Saturday) would be required. Therefore, no vibration impacts from construction activities would occur and no vibration reduction measures are required.

Long-Term Aircraft Noise Impacts

The proposed project is approximately 2.8 miles from the nearest airport. Based on the Riverside County Airport Land Use Compatibility Plan (Riverside County, November 2014) the project is located outside of the 60 dBA CNEL noise contour of the airport. In addition, there are no private airstrips or heliports within 2 miles of the project site. The project would not expose people residing or working in the project area to excessive noise levels from aircraft noise. Therefore, no noise impacts would occur. No noise reduction measures are required.

Long Term Traffic Noise Impacts

The FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77 108) was used to evaluate traffic-related noise conditions along roadway segments in the project vicinity. This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry, to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The resultant noise levels are weighted and summed over 24-hour periods to determine the CNEL values. The existing, 2024, 2024 cumulative, and 2040 (General Plan Buildout) without and with project ADT volumes were obtain from the *Transportation Impact Analysis for the Perris/Dracaea Commercial Project* (LSA 2020b). The standard vehicle mix for Southern California roadways was used for traffic on these roadway segments. Tables L, M, and N provide the traffic noise levels for the existing, 2022, and 2040 (General Plan Buildout) without and with project, respectively. These noise levels represent the worst-case scenario, which assumes that no shielding is provided between traffic and the location where the noise contours are drawn. Attachment C provides the specific assumptions used in developing these noise levels and model printouts.

Tables L, M, and N show that the project-related traffic noise increase would be up to 0.2 dBA along Perris Boulevard, 1.6 dBA along Dracaea Avenue, and 13.2 dBA along Sunset Lane. As shown in Tables L, M, and N, traffic noise on Sunset Lane would increase substantially due to access to the project from Sunset Lane. However, the overall traffic noise increase for the residences along Sunset Lane would be 0.2 dBA when traffic noise on Perris Boulevard is factored in. The detailed noise calculations are provided in Attachment D. Noise level increases less than 3 dBA would not be

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Table L: Existing Without and With Project Traffic Noise Levels

Roadway Segment	Without Project Traffic Conditions					With Project Traffic Conditions					
	ADT	Centerline to 70 dBA CNEL (ft)	Centerline to 65 dBA CNEL (ft)	Centerline to 60 dBA CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	ADT	Centerline to 70 dBA CNEL (ft)	Centerline to 65 dBA CNEL (ft)	Centerline to 60 dBA CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	Increase from Baseline Conditions
Perris Boulevard between Eucalyptus Avenue and Atwood Avenue	31,829	71	136	286	68.5	32,699	72	139	291	68.6	0.1
Perris Boulevard between Atwood Avenue and Dracaea Avenue	30,997	70	134	281	68.4	31,282	70	135	283	68.4	0.0
Perris Boulevard between Dracaea Avenue and Cottonwood Avenue	29,577	66	129	272	68.4	30,621	67	132	279	68.6	0.2
Dracaea Avenue between Perris Boulevard and Project Driveway 2	4,912	< 50	< 50	67	60.4	7,251	< 50	< 50	87	62.0	1.6
Sunset Lane South of Atwood Avenue	38	< 50	< 50	< 50	36.5	795	< 50	< 50	< 50	49.7	13.2 (0.2)[1]

Source: Compiled by LSA Associates, Inc. (2020).
Note: Traffic noise within 50 ft of the roadway centerline should be evaluated with site-specific information.
[1] The overall traffic noise increase for the residences along Sunset Lane would be 0.2 dBA when traffic noise on Perris Boulevard is factored in. The detailed noise calculations are provided in Attachment D.
ADT = average daily traffic
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels
ft = foot/feet

LSA

Table M: 2022 Without and With Project Traffic Noise Levels

Roadway Segment	Without Project Traffic Conditions					With Project Traffic Conditions					
	ADT	Centerline to 70 dBA CNEL (ft)	Centerline to 65 dBA CNEL (ft)	Centerline to 60 dBA CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	ADT	Centerline to 70 dBA CNEL (ft)	Centerline to 65 dBA CNEL (ft)	Centerline to 60 dBA CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	Increase from Baseline Conditions
Perris Boulevard between Eucalyptus Avenue and Atwood Avenue	36,447	76	149	313	69.1	37,317	77	151	318	69.2	0.1
Perris Boulevard between Atwood Avenue and Dracaea Avenue	35,559	75	146	308	69.0	35,844	75	147	310	69.0	0.0
Perris Boulevard between Dracaea Avenue and Cottonwood Avenue	34,036	71	141	299	69.0	35,080	72	144	305	69.2	0.2
Dracaea Avenue between Perris Boulevard and Project Driveway 2	5,207	< 50	< 50	70	60.6	7,546	< 50	< 50	89	62.2	1.6
Sunset Lane South of Atwood Avenue	38	< 50	< 50	< 50	36.5	795	< 50	< 50	< 50	49.7	13.2 (0.2)[1]

Source: Compiled by LSA Associates, Inc. (2020).
Note: Traffic noise within 50 ft of the roadway centerline should be evaluated with site-specific information.
[1] The overall traffic noise increase for the residences along Sunset Lane would be 0.2 dBA when traffic noise on Perris Boulevard is factored in. The detailed noise calculations are provided in Attachment D.
ADT = average daily traffic
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels
ft = foot/feet

LSA

Table N: 2040 (General Plan Buildout) Traffic Noise Levels Without and With Project

Roadway Segment	Without Project Traffic Conditions					With Project Traffic Conditions					
	ADT	Centerline to 70 dBA CNEL (ft)	Centerline to 65 dBA CNEL (ft)	Centerline to 60 dBA CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	ADT	Centerline to 70 dBA CNEL (ft)	Centerline to 65 dBA CNEL (ft)	Centerline to 60 dBA CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	Increase from Baseline Conditions
Perris Boulevard between Eucalyptus Avenue and Atwood Avenue	45,861	86	172	364	70.1	46,731	87	174	369	70.1	0.0
Perris Boulevard between Atwood Avenue and Dracaea Avenue	46,776	87	174	369	70.1	47,061	87	175	370	70.2	0.1
Perris Boulevard between Dracaea Avenue and Cottonwood Avenue	42,958	81	164	348	70.1	44,003	82	167	354	70.2	0.1
Dracaea Avenue between Perris Boulevard and Project Driveway 2	6,735	< 50	< 50	83	61.7	9,074	< 50	< 50	100	63.0	1.3
Sunset Lane South of Atwood Avenue	38	< 50	< 50	< 50	36.5	795	< 50	< 50	< 50	49.7	13.2(0.2)[1]

Source: Compiled by LSA Associates, Inc. (2020).
Note: Traffic noise within 50 ft of the roadway centerline should be evaluated with site-specific information.
[1] The overall traffic noise increase for the residences along Sunset Lane would be 0.2 dBA when traffic noise on Perris Boulevard is factored in. The detailed noise calculations are provided in Attachment D.
ADT = average daily traffic
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels
ft = foot/feet

perceptible to the human ear in an outdoor environment. Therefore, no traffic noise impacts from project-related traffic on off-site sensitive receptors would occur. No noise reduction measures are required.

Long-Term Off-Site Stationary Noise Impacts

Truck Deliveries and Truck Unloading Activities

Noise levels generated by delivery trucks would be similar to noise readings from truck loading and unloading activities, which generate a noise level of 65 dBA L_{eq} at 50 ft. Although a typical truck unloading process takes an average of 15–20 minutes, this maximum noise level occurs in a much shorter period of time (less than 5 minutes). Table O shows the noise level generated by truck delivery and unloading activities at 200 ft. As Table O shows, noise levels generated by truck delivery and unloading activities would not exceed the City's exterior daytime and nighttime noise standard of 65 dBA L_{eq} and 60 dBA L_{eq}, respectively, at a distance of 200 ft for noise sources generated on commercial land uses. In addition, the closest residences are located approximately 100 ft from the truck deliveries and would be exposed to a noise level of 59 dBA L_{eq} as shown in Table O. A noise level of 59 dBA L_{eq} would not exceed the City's equivalent exterior daytime and nighttime noise standard of 71 dBA L_{eq} and 66 dBA L_{eq}, respectively, at a distance of 100 ft. Therefore, no noise impacts would occur, and no noise reduction measures are required.

Table O: Truck Delivery and Unloading Activities

Activity	Reference Noise Level (dBA L_{eq})	Reference Distance (ft)	Noise Attenuation at 100/200 ft (dBA)	Noise Level at 100/200 ft (dBA L_{eq})
Truck Delivery and Unloading Activities	65	50	6/12	59/53

Source: Compiled by LSA Associates, Inc. (2020).
dBA = A-weighted decibels
ft = foot/feet
L_{eq} = equivalent continuous sound level

HVAC Equipment

The project would construct a new convenience store and a restaurant with a drive-through lane that would have up to four rooftop HVAC units on each building. The HVAC equipment could potentially operate 24 hours per day. Rooftop HVAC equipment would generate noise levels of 66.5 dBA L_{eq} at 5 ft. Four rooftop HVAC units operating together would generate a noise level of 73 dBA L_{eq} at 5 ft. Table P shows the noise level generated by four HVAC units at 200 ft. As Table P shows, noise levels generated by four HVAC units would not exceed the City's exterior daytime and nighttime noise standard of 65 dBA L_{eq} and 60 dBA L_{eq}, respectively, at a distance of 200 ft for noise sources generated on commercial land uses. In addition, the closest residences are located approximately 45 ft from the HVAC equipment and would be exposed to a noise level of 54 dBA L_{eq} as shown in Table P. A noise level of 54 dBA L_{eq} would not exceed the City's equivalent exterior daytime and nighttime noise standard of 78 dBA L_{eq} and 73 dBA L_{eq}, respectively, at a distance of 45 ft. Therefore, no noise impacts would occur, and no noise reduction measures are required.

Table P: HVAC Equipment

Activity	No. of HVAC Units	Reference Noise Level (dBA L_{eq})	Reference Distance (ft)	Noise Attenuation at 45/200 ft (dBA)	Noise Level at 45/200 ft (dBA L_{eq})
HVAC Equipment	4	73	5	19/32	54/41

Source: Compiled by LSA Associates, Inc. (2020).
dBA = A-weighted decibels
ft = foot/feet

Speakerphone Noise

The proposed project would construct a coffee shop with a drive-through speakerphone that is part of the menu board. Noise generated from speakerphones is approximately 81 dBA at 1 ft. Table Q shows the noise level generated by the speakerphone at 200 ft. As Table Q shows, noise levels generated by speakerphone would not exceed the City's exterior daytime and nighttime noise standard of 65 dBA L_{eq} and 60 dBA L_{eq}, respectively, at a distance of 200 ft for noise sources generated on commercial land uses. As the proposed project would construct a 6 ft high wall along the northern, eastern, and southern boundaries, noise levels generated by the drive-through speakerphone would be lower than 35 dBA L_{eq}. Compliance with Section 9.09.080 in the City's Municipal Code or approval to allow an alternative that "adequately protects the public health, safety, and welfare" based on Section 9.09.020 of the City's Municipal would be required. Section 9.09.080 of the City's Municipal Code specifies the hours of operation and that the drive through speakerphone system shall be designed to compensate for ambient noise levels in the immediate area and the drive through speakerphone shall not be located within 100 ft of any residential district or any property used for residential uses. Section 9.09.020 allows the decision-making body discretion to allow an alternative that "adequately protects the public health, safety and welfare." Based on the site plan shown in Figure 2, the closest residential property to the speakerphone is located at 100 ft. The proposed drive through restaurant and drive through would potentially operate 24 hours per day. The closest residences are located approximately 100 ft from the speakerphone and would be exposed to a noise level of 41 dBA L_{eq} as shown in Table Q. The noise level of 41 dBA L_{eq} would not exceed the City's equivalent exterior daytime and nighttime noise standard of 71 dBA L_{eq} and 66 dBA L_{eq}, respectively, at a distance of 100 ft. Therefore, no noise impacts would occur with the compliance of the hours of operation or approval to allow an alternative that "adequately protects the public health, safety, and welfare" and implementation of a drive through speakerphone system designed to compensate for ambient noise levels in the immediate area.

Table Q: Speakerphone Noise

Activity	Reference Noise Level (dBA)	Reference Distance (ft)	Noise Attenuation at 100/200 ft (dBA)	Noise Level at 100/200 ft (dBA L_{eq})
Speakerphone Operations	81	1	40/46	41/35

Source: Compiled by LSA Associates, Inc. (2020).
dBA = A-weighted decibels
ft = foot/feet
L_{eq} = equivalent continuous sound level

Parking Activities

The project would include parking areas on the project site. Noise generated from parking activities includes vehicles traveling at slow speeds, engine start-up noise, car door slams, car horns, car alarms, and tire squeals. Representative parking activities would generate approximately 60 to 70 dBA L_{max} at 50 ft. Table R shows the noise level generated by the parking activities at 200 ft. Although parking activities generate high intermittent noise levels of 58 dBA L_{max}, the L_{eq} noise level would be much lower over an hour period, and the L_{eq} noise level would not exceed the City's exterior daytime and nighttime noise standard of 65 dBA L_{eq} and 60 dBA L_{eq}, respectively, at a distance of 200 ft for noise sources generated on commercial land uses. In addition, the closest residences are located approximately 25 ft from the parking activities and would be exposed to a noise level of 76 dBA L_{max} as shown in Table R. A noise level of 76 dBA L_{max} would not exceed the City's equivalent exterior daytime and nighttime noise standard of 83 dBA L_{eq} and 78 dBA L_{eq}, respectively, at a distance of 25 ft. Therefore, no noise impacts would occur, and no noise reduction measures are required.

Table R: Parking Lot Activities

Activity	Reference Noise Level (dBA)	Reference Distance (ft)	Noise Attenuation at 25/200 ft (dBA)	Noise Level at 25/200 ft (dBA L_{max})
Truck Delivery and Unloading Activities	70	50	-6/12	76/58

Source: Compiled by LSA Associates, Inc. (2020).
dBA = A-weighted decibels
ft = foot/feet
L_{eq} = equivalent continuous sound level

Long-Term Vibration Impacts

The proposed project would not generate vibration. In addition, vibration levels generated from project-related traffic on the adjacent roadways (Perris Boulevard, Dracaea Avenue, and local roadways leading to the project site) are unusual for on-road vehicles because the rubber tires and suspension systems of on-road vehicles provide vibration isolation. Vibration generated from project-related traffic on the adjacent roadways would be less than significant. No vibration reduction measures are required.

MINIMIZATION MEASURES

The following would minimize short-term construction-related noise and vibration impacts resulting from the proposed project:

- The construction contractor shall limit the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work, to between the hours of 7:00 a.m. and 8:00 p.m. every day.

- The construction contractor shall limit all grading-related activities, including operation of grading equipment, to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between the hours of 8:00 a.m. and 4:00 p.m. on Saturday.

- During all project site excavation and grading, the project contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.

- The project contractor shall place all stationary construction equipment so that emitted noise is directed away from the relatively more sensitive receptors nearest the project site.

- The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and relatively more noise-sensitive receptors nearest the project site during all project construction.

CONDITIONS OF APPROVAL

Short-Term Construction Noise Impacts

No noise reduction measures are required.

Short-Term Construction Vibration Impacts

The following measure would reduce construction-related vibration impacts resulting from the proposed project:

- The project will be conditioned to operate only small bulldozers within 15 ft of the residential structures immediately north and southeast of the project site to ensure vibration levels would not exceed the FTA's damage threshold of 94 VdB (0.2 PPV [in/sec]) for buildings constructed of non-engineered timber and masonry. This condition would be incorporated onto the project grading plans, and directional signage would be placed on the construction site to direct equipment operators. Established City procedures for plan check, permit issuance, and construction inspection would ensure project implementation consistent with the conditions of approval.

Long-Term Aircraft Noise Impacts

No noise reduction measures are required.

Long-Term Traffic Noise Impacts

No noise reduction measures are required.

Long-Term Stationary Noise Impacts

The following measures would reduce long-term operational noise impacts resulting from the proposed project:

- Pursuant to Section 9.09.080(C)(1) of the City Municipal Code, the fast-food restaurant shall not open prior to 6:00 a.m. nor remain open after 10:00 p.m. unless the Project Applicant obtains approval from a decision-making body of the City to allow an alternative that "adequately protects the public health, safety and welfare" in accordance with Section 9.09.020 of the City Municipal Code.

- The drive through speakerphone system shall be designed to compensate for ambient noise levels in the immediate area.

Long-Term Vibration Impacts

No vibration reduction measures are required.

REFERENCES

City of Moreno Valley. Municipal Code.

_____. 2006. Noise Element of the Moreno Valley General Plan. July 11.

_____. 2006. Safety Element of the Moreno Valley General Plan. July 11.

County of Riverside. 2014. *Riverside County Airport Land Use Compatibility Plan*. November.

Federal Highway Administration (FHWA). 1977. Highway Traffic Noise Prediction Model, FHWA-RD 77 108.

_____. 2006. *Highway Construction Noise Handbook*. Roadway Construction Noise Model, FHWA-HEP-06-015. DOT-VNTSC-FHWA-06-02. NTIS No. PB2006-109012. August.

Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment Manual*. Office of Planning and Environment. Report No. 0123. September.

Harris, Cyril M., editor. 1991. *Handbook of Acoustical Measurements and Noise Control*, Third Edition.

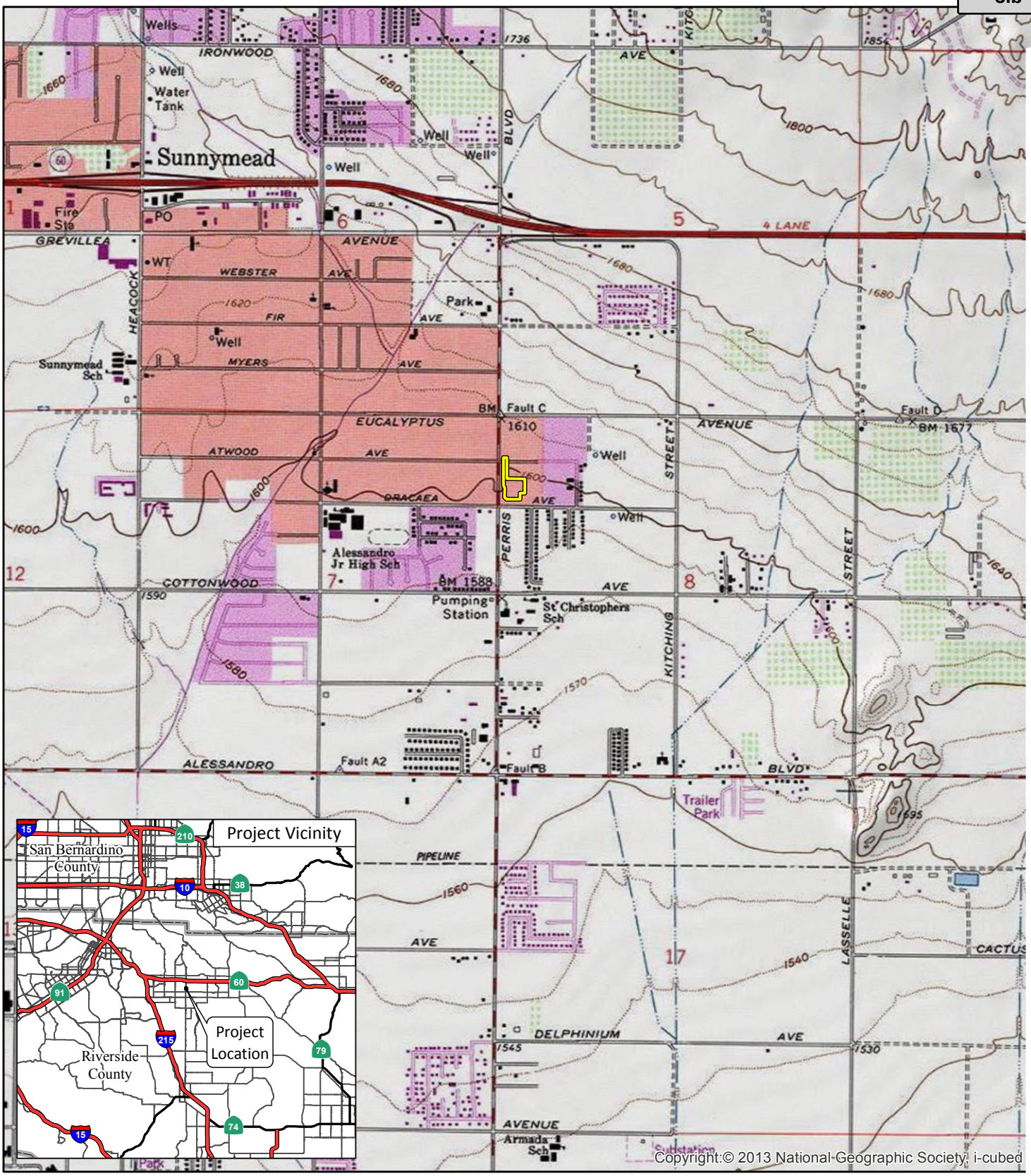
LSA Associates, Inc. (LSA). 2020a. *Air Quality and Greenhouse Gas Analysis for the Commercial Retail Project at Perris Boulevard and Dracaea Avenue in the City of Moreno Valley, California.* May 4.

_____. 2020b. *Transportation Impact Analysis for the Perris/Dracaea Commercial Project*. September.

Attachments: A: Figures
B: Long-Term Noise Level Measurement Results
C: FHWA Highway Traffic Noise Model Printouts
D: Detailed Noise Calculations

ATTACHMENT A

FIGURES



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LEGEND

Project Location

FIGURE 1

0 1000 2000

FEET

Commercial Retail Project at Perris Boulevard/Dracaea Avenue

Project Location

SOURCE: USGS 7.5' Quad., *Sunnymead, CA* (1980)

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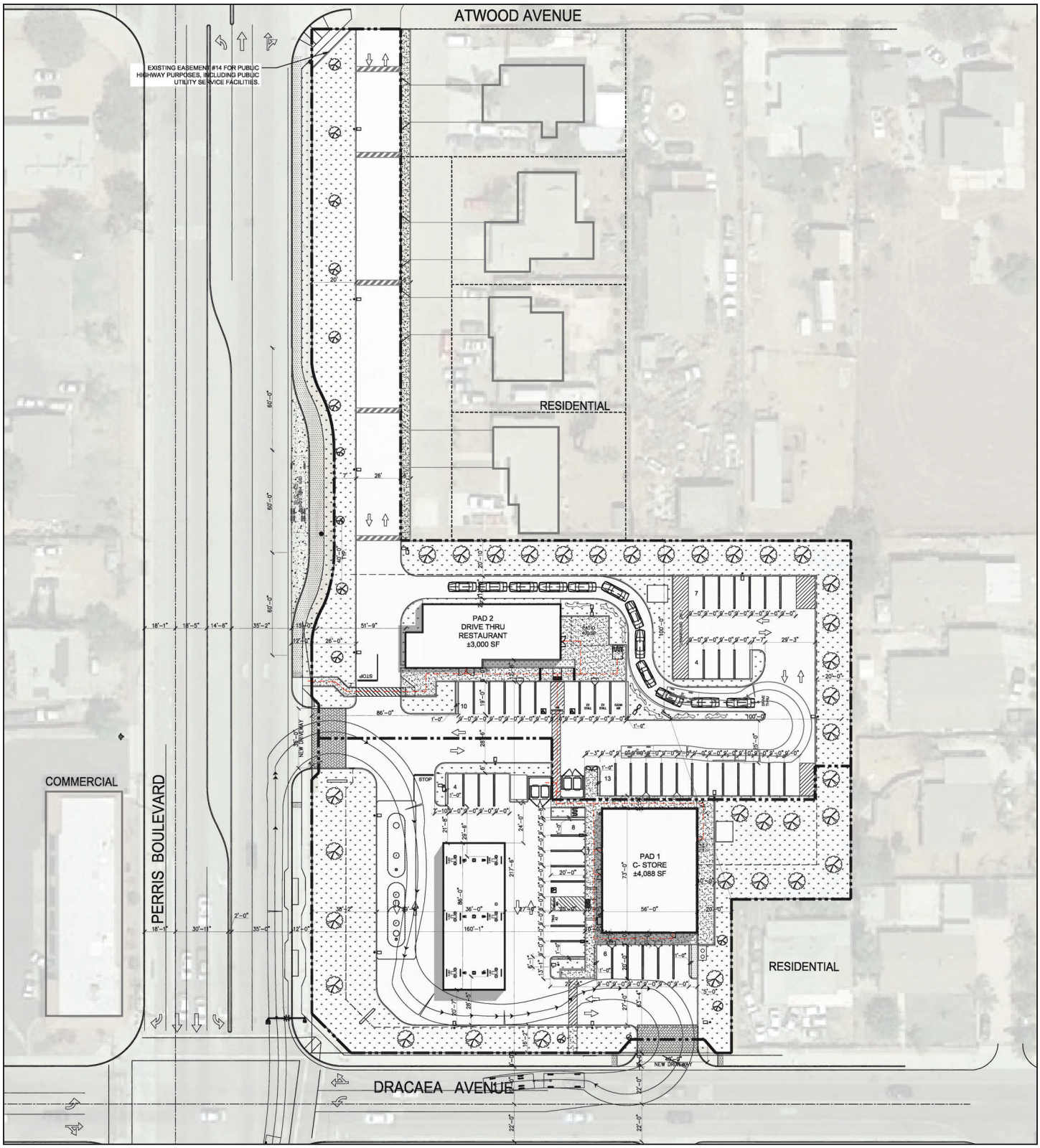

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FIGURE 2

N

0 45 90

FEET

SOURCE: Cadence Capital Investmtents LLC; June 2020

Commercial Retail Project at Perris Boulevard/Dracaea Avenue

Site Plan

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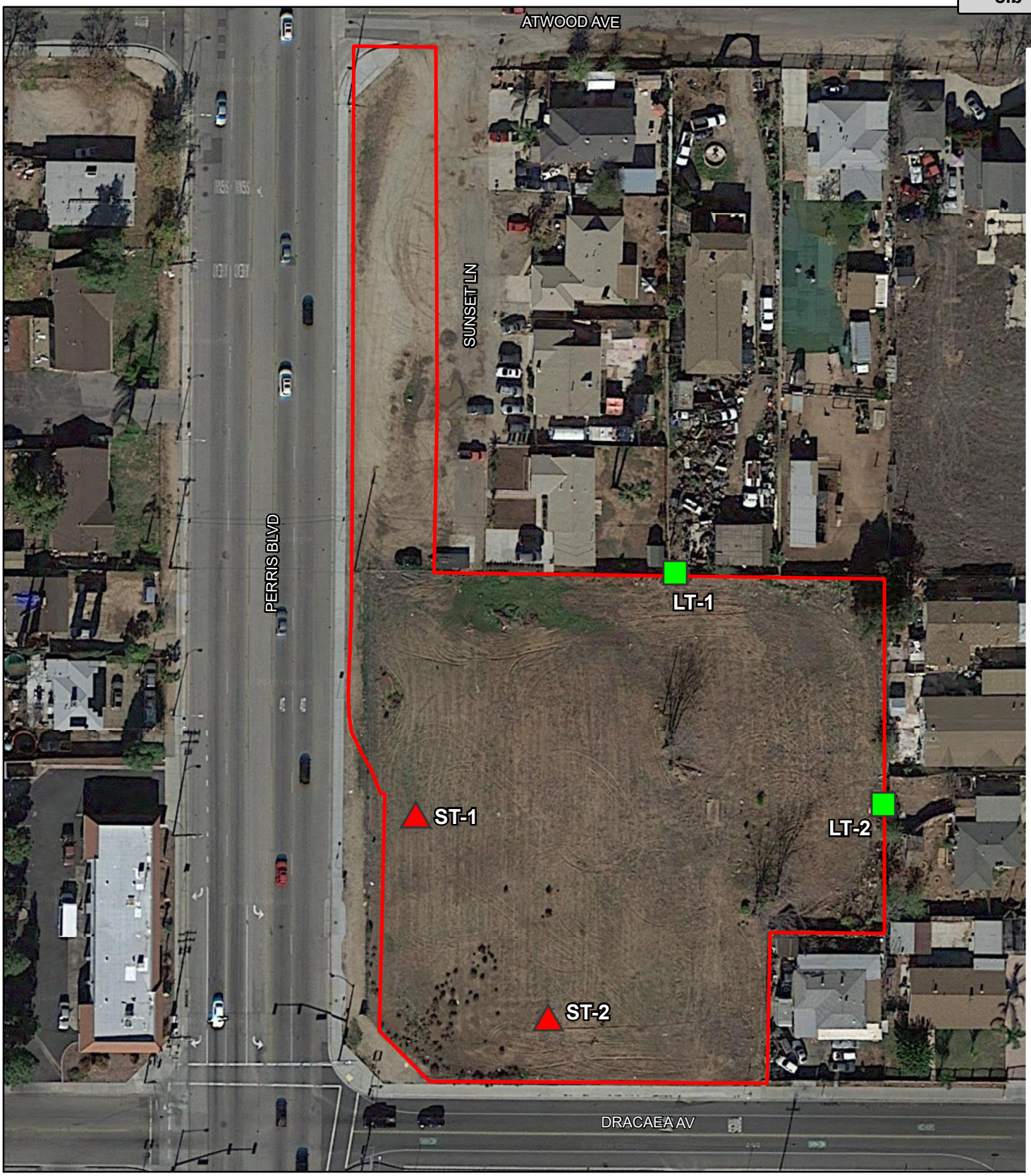

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LEGEND

Project Site

Long Term Monitoring Locations

Short Term Monitoring Locations

N

0 40 80

FEET

SOURCE: Google (2019)

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FIGURE

Commercial Retail Project at Perris Boulevard/Dracaea Avenu

Noise Monitoring Locations

ATTACHMENT B

LONG-TERM NOISE LEVEL MEASUREMENT RESULTS

Table A-1: Long-Term (24-Hour) Noise Level Measurement Results at LT-1

	Start Time	Day 1			Day 2	
		Date	Noise Level (dBA L_{eq})		Date	Noise Level (dBA L_{eq})
1	10:00 AM	7/22/19	57	25	7/23/19	56
2	11:00 AM	7/22/19	58	26	7/23/19	56
3	12:00 PM	7/22/19	59	27	7/23/19	55
4	1:00 PM	7/22/19	56	28	7/23/19	55
5	2:00 PM	7/22/19	58	29	7/23/19	57
6	3:00 PM	7/22/19	59	30	7/23/19	58
7	4:00 PM	7/22/19	58	31	7/23/19	61
8	5:00 PM	7/22/19	60	32	7/23/19	61
9	6:00 PM	7/22/19	60	33	7/23/19	60
10	7:00 PM	7/22/19	59	34	7/23/19	58
11	8:00 PM	7/22/19	57	35	7/23/19	58
12	9:00 PM	7/22/19	56	36	7/23/19	55
13	10:00 PM	7/22/19	57	37	7/23/19	54
14	11:00 PM	7/22/19	54	38	7/23/19	55
15	12:00 AM	7/23/19	51	39	7/23/19	55
16	1:00 AM	7/23/19	51	40	7/23/19	53
17	2:00 AM	7/23/19	50	41	7/23/19	55
18	3:00 AM	7/23/19	53	42	7/23/19	56
19	4:00 AM	7/23/19	56	43	7/23/19	59
20	5:00 AM	7/23/19	57	44	7/23/19	60
21	6:00 AM	7/23/19	57	45	7/23/19	61
22	7:00 AM	7/23/19	58	46	7/23/19	57
23	8:00 AM	7/23/19	57	47	7/23/19	55
24	9:00 AM	7/23/19	54	48	7/23/19	56

Source: Compiled by LSA Associates, Inc. (2020).
dBA L_{eq} = equivalent continuous sound level measured in A-weighted decibels

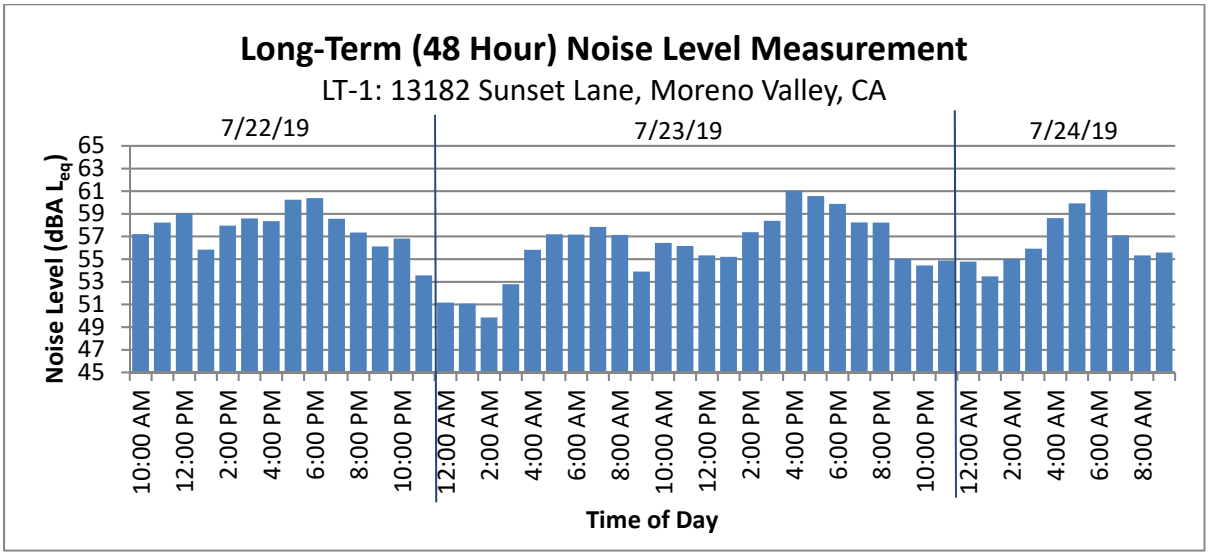
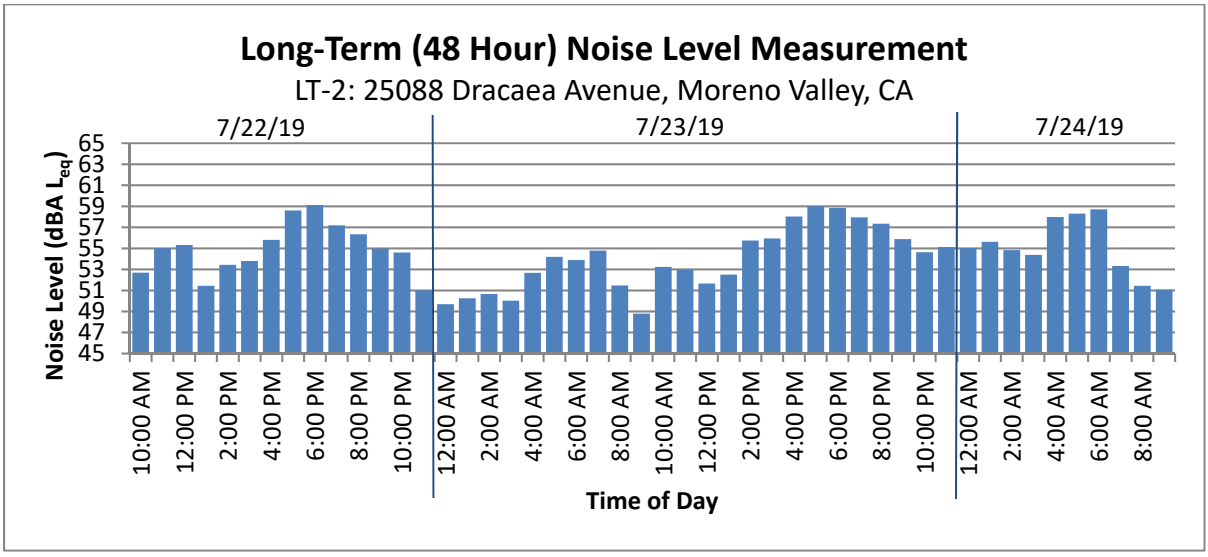


Table A-2: Long-Term (24-Hour) Noise Level Measurement Results at LT-2

	Start Time	Day 1			Day 2	
		Date	Noise Level (dBA L_{eq})		Date	Noise Level (dBA L_{eq})
1	10:00 AM	7/22/19	53	25	7/23/19	53
2	11:00 AM	7/22/19	55	26	7/23/19	53
3	12:00 PM	7/22/19	55	27	7/23/19	52
4	1:00 PM	7/22/19	51	28	7/23/19	52
5	2:00 PM	7/22/19	53	29	7/23/19	56
6	3:00 PM	7/22/19	54	30	7/23/19	56
7	4:00 PM	7/22/19	56	31	7/23/19	58
8	5:00 PM	7/22/19	59	32	7/23/19	59
9	6:00 PM	7/22/19	59	33	7/23/19	59
10	7:00 PM	7/22/19	57	34	7/23/19	58
11	8:00 PM	7/22/19	56	35	7/23/19	57
12	9:00 PM	7/22/19	55	36	7/23/19	56
13	10:00 PM	7/22/19	55	37	7/23/19	55
14	11:00 PM	7/22/19	51	38	7/23/19	55
15	12:00 AM	7/23/19	50	39	7/23/19	55
16	1:00 AM	7/23/19	50	40	7/23/19	56
17	2:00 AM	7/23/19	51	41	7/23/19	55
18	3:00 AM	7/23/19	50	42	7/23/19	54
19	4:00 AM	7/23/19	53	43	7/23/19	58
20	5:00 AM	7/23/19	54	44	7/23/19	58
21	6:00 AM	7/23/19	54	45	7/23/19	59
22	7:00 AM	7/23/19	55	46	7/23/19	53
23	8:00 AM	7/23/19	51	47	7/23/19	51
24	9:00 AM	7/23/19	49	48	7/23/19	51

Source: Compiled by LSA Associates, Inc. (2020).
dBA L_{eq} = equivalent continuous sound level measured in A-weighted decibels



ATTACHMENT C

FHWA HIGHWAY TRAFFIC NOISE MODEL PRINTOUTS

TABLE Existing No Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Perris Boulevard between Eucalyptus Avenue and Atwood Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - Existing No Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 31829 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.47

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
70.5	136.5	286.3	613.1

TABLE Existing No Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Perris Boulevard between Atwood Avenue and Dracaea Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - Existing No Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 30997 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.36

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
69.6	134.3	281.4	602.4

TABLE Existing No Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Perris Boulevard between Dracaea Avenue and Cottonwood Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - Existing No Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29577 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.44

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
65.6	129.2	272.4	583.9

TABLE Existing No Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Dracaea Avenue between Perris Boulevard and Project Driveway 2
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - Existing No Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4912 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 14 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.35

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	67.4	142.6

TABLE Existing No Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Sunset Lane South of Atwood Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - Existing No Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 38 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 36.52

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Existing Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Perris Boulevard between Eucalyptus Avenue and Atwood Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - Existing Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 32699 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.59

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
71.5	138.8	291.4	624.2

TABLE Existing Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Perris Boulevard between Atwood Avenue and Dracaea Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - Existing Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 31282 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.40

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
69.9	135.0	283.1	606.1

TABLE Existing Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Perris Boulevard between Dracaea Avenue and Cottonwood Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - Existing Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 30621 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.59

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
66.8	132.1	278.7	597.5

TABLE Existing Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Dracaea Avenue between Perris Boulevard and Project Driveway 2
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - Existing Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7251 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 14 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.04

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	86.6	184.6

TABLE Existing Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Sunset Lane South of Atwood Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - Existing Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 795 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 49.73

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE 2022 No Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Perris Boulevard between Eucalyptus Avenue and Atwood Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - 2022 No Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 36447 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.06

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
75.6	148.6	313.0	670.9

TABLE 2022 No Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Perris Boulevard between Atwood Avenue and Dracaea Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - 2022 No Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 35559 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.95

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
74.7	146.3	307.9	660.0

TABLE 2022 No Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Perris Boulevard between Dracaea Avenue and Cottonwood Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - 2022 No Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 34036 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.05

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
70.7	141.2	298.8	641.1

TABLE 2022 No Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Dracaea Avenue between Perris Boulevard and Project Driveway 2
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - 2022 No Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5207 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 14 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.61

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	69.9	148.2

TABLE 2022 No Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Sunset Lane South of Atwood Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - 2022 No Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 38 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 36.52

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE 2022 Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Perris Boulevard between Eucalyptus Avenue and Atwood Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - 2022 Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 37317 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.16

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
76.6	150.8	317.9	681.5

TABLE 2022 Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Perris Boulevard between Atwood Avenue and Dracaea Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - 2022 Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 35844 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.99

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
75.0	147.0	309.6	663.5

TABLE 2022 Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Perris Boulevard between Dracaea Avenue and Cottonwood Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - 2022 Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 35080 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.18

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
71.9	144.0	304.8	654.1

TABLE 2022 Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Dracaea Avenue between Perris Boulevard and Project Driveway 2
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - 2022 Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7546 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 14 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.22

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	88.9	189.5

TABLE 2022 Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Sunset Lane South of Atwood Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - 2022 Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 795 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 49.73

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE 2040 No Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Perris Boulevard between Eucalyptus Avenue and Atwood Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - 2040 No Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 45861 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.06

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
85.6	171.9	364.2	781.6

TABLE 2040 No Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Perris Boulevard between Atwood Avenue and Dracaea Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - 2040 No Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 46776 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
86.6	174.1	369.0	792.0

TABLE 2040 No Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Perris Boulevard between Dracaea Avenue and Cottonwood Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - 2040 No Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 42958 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.06

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
80.6	164.0	348.5	748.5

TABLE 2040 No Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Dracaea Avenue between Perris Boulevard and Project Driveway 2
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - 2040 No Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6735 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 14 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.72

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	82.5	175.8

TABLE 2040 No Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Sunset Lane South of Atwood Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - 2040 No Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 38 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 36.52

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE 2040 Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Perris Boulevard between Eucalyptus Avenue and Atwood Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - 2040 Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 46731 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
86.5	174.0	368.7	791.5

TABLE 2040 Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Perris Boulevard between Atwood Avenue and Dracaea Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - 2040 Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 47061 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 35 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.17

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
86.8	174.8	370.5	795.2

TABLE 2040 Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Perris Boulevard between Dracaea Avenue and Cottonwood Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - 2040 Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 44003 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.16

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
81.7	166.5	354.1	760.5

TABLE 2040 Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Dracaea Avenue between Perris Boulevard and Project Driveway 2
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - 2040 Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9074 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 14 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.02

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	100.2	214.2

TABLE 2040 Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 09/03/2020
ROADWAY SEGMENT: Sunset Lane South of Atwood Avenue
NOTES: Perris Boulevard and Dracaea Avenue Commercial Retail - 2040 Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 795 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 49.73

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

ATTACHMENT D

DETAILED NOISE CALCULATIONS

Commercial Retail Project at Perris Boulevard and Dracaea Avenue in Moreno Valley, California

Traffic Noise Calculations

Scenario	Roadway	ADT	Center-line to 70 CNEL (feet)	Center-line to 65 CNEL (feet)	Center-line to 60 CNEL (feet)	CNEL (dBA) 50 feet from Centerline of Outermost Lane		Distance from Roadway Centerline to Receptor (ft)	Exterior Noise Level (dBA CNEL)	Combined Noise Level (dBA CNEL)	Noise Level Increase (dBA)
Existing NP	Perris Boulevard between Atwood Avenue and Dracaea Avenue	30,997	70	134	281	68.4		194.74	62.6	62.6	
Existing NP	Sunset Lane South of Atwood Avenue	38	< 50	< 50	< 50	36.5		61.75	35.9		
Existing WP	Perris Boulevard between Atwood Avenue and Dracaea Avenue	31,282	70	135	283	68.4		194.74	62.6	62.8	0.2
Existing WP	Sunset Lane South of Atwood Avenue	795	< 50	< 50	< 50	49.7		61.75	49.1		
2022 NP	Perris Boulevard between Atwood Avenue and Dracaea Avenue	35,559	75	146	308	69.0		194.74	63.1	63.1	
2022 NP	Sunset Lane South of Atwood Avenue	38	< 50	< 50	< 50	36.5		61.75	35.9		
2022 P	Perris Boulevard between Atwood Avenue and Dracaea Avenue	35,844	75	147	310	69.0		194.74	63.2	63.3	0.2
2022 P	Sunset Lane South of Atwood Avenue	795	< 50	< 50	< 50	49.7		61.75	49.1		
2040 NP	Perris Boulevard between Atwood Avenue and Dracaea Avenue	46,776	87	174	369	70.1		194.74	64.3	64.3	
2040 NP	Sunset Lane South of Atwood Avenue	38	< 50	< 50	< 50	36.5		61.75	35.9		
2040 P	Perris Boulevard between Atwood Avenue and Dracaea Avenue	47,061	87	175	370	70.2		194.74	64.3	64.4	0.1
2040 P	Sunset Lane South of Atwood Avenue	795	< 50	< 50	< 50	49.7		61.75	49.1		

Appendix E:

Traffic Impact Analysis, Perris/Dracaea Commercial Project, City of Moreno Valley, Riverside County, California

TRANSPORTATION IMPACT ANALYSIS

PERRIS/DRACAEA COMMERCIAL PROJECT

CITY OF MORENO VALLEY

RIVERSIDE COUNTY, CALIFORNIA

LSA

September 2020

TRANSPORTATION IMPACT ANALYSIS

PERRIS/DRACAEA COMMERCIAL PROJECT

CITY OF MORENO VALLEY

RIVERSIDE COUNTY, CALIFORNIA

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Project No. CAQ1901

LSA

September 2020

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1.0 EXECUTIVE SUMMARY

The proposed Perris/Dracaea Commercial Project will include a gasoline station with 12 fueling positions, a 4,088-square foot convenience store, and a 3,000-square foot drive-through restaurant. The project will be located at the northeast corner of Perris Boulevard and Dracaea Avenue in the City of Moreno Valley (City). The project will require a General Plan Amendment (GPA) and Zone Change (ZC).

Access to the project site would be provided via three driveways: one on Perris Boulevard, one on Dracaea Avenue, and one on Atwood Avenue via Sunset Lane. While the driveway on Perris Boulevard (Project Driveway 1) will be restricted to a right-in/right-out (RIRO) only driveway by a raised concrete median on Perris Boulevard, the driveway on Dracaea Avenue (Project Driveway 2) and the access via Sunset lane will operate as full-access driveways.

The project will replace the two-way left-turn lane (TWLTL) on Perris Boulevard from south of Pedro's Taco Shop driveway to the Dracaea Avenue and create turn pockets in the median for northbound and southbound left-turn movements at the intersection of Perris Boulevard/Dracaea Avenue, with storage lengths of 150 feet (ft) and 125 ft, respectively. Additionally, the project will extend the southbound left-turn pocket at the intersection of Perris Boulevard/Dracaea Avenue by 5 ft. Further, the project will add a bus bay on the east side of Perris Boulevard, north of the intersection of Perris Boulevard/Auto Center Driveway-Project Driveway 1.

The project is forecast to generate 324 net trips in the a.m. peak hour, 204 net trips in the p.m. peak hour, and 3,471 net daily trips. Table 1-A, at the end of this chapter, illustrates the recommended improvements for study intersections and funding mechanism under all scenarios.

The study area for the project was finalized based on the criteria defined in the City of Moreno Valley Transportation Engineering Division *Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment*, dated June 2020, as well as the requirements for the disclosure of potential impacts and mitigation measures pursuant to the California Environmental Quality Act (CEQA). Based on discussions with City staff during the scoping agreement process, the study area includes seven intersections and four roadway segments.

Traffic conditions were examined for the weekday daily, a.m., and p.m. peak hour conditions under the following scenarios:

- Existing conditions;
- Project Completion (2022) without project conditions;
- Project Completion (2022) with project conditions;
- General Plan Build-out (2040) without project conditions; and
- General Plan Build-out (2040) with project conditions.

1.1 EXISTING CONDITIONS SUMMARY

Based on the criteria as discussed in the "Level of Service Procedures and Thresholds" section of this report, the intersection of Perris Boulevard/Atwood Avenue operates at an unsatisfactory Level of Service (LOS) under existing conditions. All other study intersections and roadway segments are forecast to operate at a satisfactory LOS under existing conditions.

Queues for some of the turn movements at study area intersections are forecast to exceed the existing available turn-pocket storage lengths under existing conditions.

1.2 PROJECT COMPLETION (2022) CONDITIONS SUMMARY

Based on the criteria discussed in the "Level of Service Procedures and Thresholds" section of this report, the intersection of Perris Boulevard/Atwood Avenue operates at an unsatisfactory LOS under project completion without project conditions, but operates at a satisfactory LOS under project completion with project conditions. All other study intersections are forecast to operate at a satisfactory LOS under project completion without and with project conditions.

All the roadway segments on Perris Boulevard are forecast to operate at an unsatisfactory LOS under project completion without and without project conditions. However, the project increases the volume-to capacity (V/C) ratio by less than 0.05 at these segments. Therefore, pursuant to the City's Transportation Impact Analysis (TIA) guidelines, improvements are not required for any of these segments. The segment of Dracaea Avenue between Perris Boulevard and Birchwood Drive is forecast to operate at a satisfactory LOS.

Queues for some of the turn movements at study area intersections are forecast to exceed the existing available turn-pocket storage lengths under project completion without and with project conditions. Table 1-A lists improvements recommended at these locations and the corresponding funding mechanisms.

1.3 GENERAL PLAN BUILD-OUT (2040) CONDITIONS SUMMARY

Based on the criteria discussed in the "Level of Service Procedures and Thresholds" section of this report, the intersection of Perris Boulevard/Atwood Avenue operates at an unsatisfactory LOS under General Plan build-out without project conditions, but operates at a satisfactory LOS under General Plan build-out with project conditions. However, the intersection of Perris Boulevard/Dracaea Avenue operates at an unsatisfactory LOS under both General Plan build-out without and with project conditions. Additionally, the project increases the delay at this intersection by more than 5.0 seconds. Therefore, pursuant to the City's TIA guidelines, the project needs to identify improvements to offset the delay at this intersection. With the implementation of the improvements listed in Table 1-A, this intersection is forecast to operate at a satisfactory LOS. All other study intersections are forecast to operate at a satisfactory LOS under General Plan build-out without and with project conditions.

All the roadway segments on Perris Boulevard are forecast to operate at an unsatisfactory LOS under project completion without and without project conditions. However, the project increases the V/C ratio by less than 0.05 at these segments. Therefore, pursuant to the City's TIA guidelines,

improvements are not required for any of these segments. The segment of Dracaea Avenue between Perris Boulevard and Birchwood Drive is forecast to operate at a satisfactory LOS.

Queues for some of the turn movements at study area intersections are forecast to exceed the existing available turn-pocket storage lengths under General Plan build-out without and with project conditions. Table 1-A lists improvements recommended at these locations and the corresponding funding mechanisms.

1.4 VMT EVALUATION SUMMARY

Pursuant to the City's Vehicle Miles Traveled (VMT) analysis guidelines, retail projects having an area of less than 50,000 square feet (sf), which serve the local community and have the potential to reduce VMT, are exempted from a VMT assessment. Since this project has a much lower square footage (7,088 sf for all uses combined) than the 50,000-square foot threshold, a detailed VMT analysis is not required for this project. Additionally, the project can be considered as a local-serving retail and will not have a significant VMT impact.

1.5 LIST OF CHAPTER 1.0 TABLES

- Table 1-A: Recommended Improvements for Intersections and Funding Mechanism

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Table 1-A - Recommended Improvements for Intersections and Funding Mechanism

Intersection	Project Completion (2022) with Project Improvements	General Plan Build-Out (2040) with Project Improvements	Funding Mechanism	Improvements Covered by TUMF	Improvements Covered by Fair Share	Fair Share Percentage
1 . Perris Boulevard/Eucalyptus Avenue	Extend storage length for NBL turn lane from 95 feet to 280 feet, Extend storage length for WBL turn lane from 100 feet to 135 feet.	Project Completion Improvements + Extend EBR turn lane from 50 feet to 155 feet.	Fair Share		Extend storage length for NBL turn lane from 95 feet to 280 feet, Extend EBR turn lane from 50 feet to 155 feet, Extend storage length for WBL turn lane from 100 feet to 135 feet.	5.89%
4 . Perris Boulevard/Dracaea Avenue	-	Add a EBL turn lane with storage length of 100 feet, Add a WBL turn lane with storage length of 135 feet.	Fair Share		Add a EBL turn lane with storage length of 100 feet, Add a WBL turn lane with storage length of 135 feet.	14.86%
5 . Perris Boulevard/Cottonwood Avenue	Extend storage length for SBL turn lane from 95 feet to 190 feet, Extend storage length for EBL turn lane from 115 feet to 185 feet.	Project Completion Improvements	Fair Share		Extend storage length for SBL turn lane from 95 feet to 190 feet, Extend storage length for EBL turn lane from 115 feet to 185 feet.	8.41%

Notes:

EB = Eastbound, WB = Westbound

L = Left

TUMF refers to the Transportation Uniform Mitigation Fee program.

Project Fair Share Percentage is the highest fair share value of the AM and PM peak hour when both peak hours are impacted by the project, or only in the peak hour where the project has an impact.

2.0 INTRODUCTION

The TIA has been prepared to assess the potential circulation impacts associated with the proposed Perris/Dracaea Commercial Project (Case No. PPA18-0018) to be located at the northeast corner of Perris Boulevard and Dracaea Avenue in the City. Figure 2-1 illustrates the regional and project location. (Figures and tables are located at the end of each chapter).

This report is intended to satisfy the requirements established by the City of Moreno Valley Transportation Engineering Division *Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment*, dated June 2020, as well as the requirements for the disclosure of potential impacts and mitigation measures pursuant to CEQA. The scope of work for this TIA, including trip generation, trip distribution, study area, and analysis methodologies, has been approved by City staff via the Scoping Agreement process. A copy of the Scoping Agreement is included as Appendix A.

This study examines traffic operations in the vicinity of the proposed project under the following scenarios:

- Existing Conditions;
- Project Completion (2022) without Project Conditions;
- Project Completion (2022) with Project Conditions;
- General Plan Build-out (2040) without Project Conditions; and
- General Plan Build-out (2040) with Project Conditions.

Traffic conditions were examined for the weekday daily, a.m., and p.m. peak hour conditions. The a.m. peak hour is defined as the one hour of highest traffic volumes occurring between 7:00 and 9:00 a.m. The p.m. peak hour is the one hour of highest traffic volumes occurring between 4:00 and 6:00 p.m. Roadway segments were analyzed using daily volume counts and comparisons were made to the daily service volume standards provided in the City's TIA guidelines.

2.1 PROJECT DESCRIPTION

The proposed project will include a gasoline station with 12 fueling positions, a 4,088-square foot convenience store, and a 3,000-square foot drive-through restaurant. Figure 1-2 illustrates the conceptual site plan for the project.

The land use for the site in the City's General Plan is Residential/Office and the Zoning is Office. The proposed land use for the site is Commercial. The proposed Zoning is Commercial. Therefore, the project will require a GPA and ZC. The project will be completed in a single phase.

Access to the project site would be provided via three driveways: one on Perris Boulevard, one on Dracaea Avenue, and one on Atwood Avenue via Sunset Lane. While the driveway on Perris Boulevard (Project Driveway 1) will be restricted to a RIRO only driveway by a raised concrete median on Perris Boulevard, the driveway on Dracaea Avenue (Project Driveway 2) and the access

via Sunset lane will operate as full-access driveways. Figure 2-2 illustrates the conceptual site plan for the project.

The City's TIA guidelines require that the project completion year should be considered at a minimum of two years from existing conditions. Therefore, for purposes of this analysis, the project completion year is 2022.

2.2 STUDY AREA

The study area was approved by City staff via the City's scoping agreement process (Appendix A). Based on the TIA guidelines, the TIA is required to analyze all intersections of "Collector" or higher classification streets, at which the project will add 50 or more peak hour trips. Additionally, the City recommended inclusion of additional intersections in this analysis during the scoping agreement process. The study area includes the following intersections and roadway segments.

2.2.1 Study Intersections

1. Perris Boulevard/Eucalyptus Avenue;
2. Perris Boulevard/Atwood Avenue;
3. Perris Boulevard/Auto Center Driveway – Project Driveway 1;
4. Perris Boulevard/Dracaea Avenue;
5. Perris Boulevard/Cottonwood Avenue;
6. Project Driveway 2/Dracaea Avenue; and
7. Sunset Lane/Atwood Avenue.

All study intersections are located in the City of Moreno Valley.

Figure 2-3 illustrates the locations of all analysis intersections.

2.2.2 Roadway Segments

1. Perris Boulevard, between Eucalyptus Avenue and Atwood Avenue;
2. Perris Boulevard, between Atwood Avenue and Dracaea Avenue;
3. Perris Boulevard, between Dracaea Avenue and Cottonwood Avenue; and
4. Dracaea Avenue, between Perris Boulevard and Birchwood Drive.

2.3 LIST OF CHAPTER 2.0 FIGURES

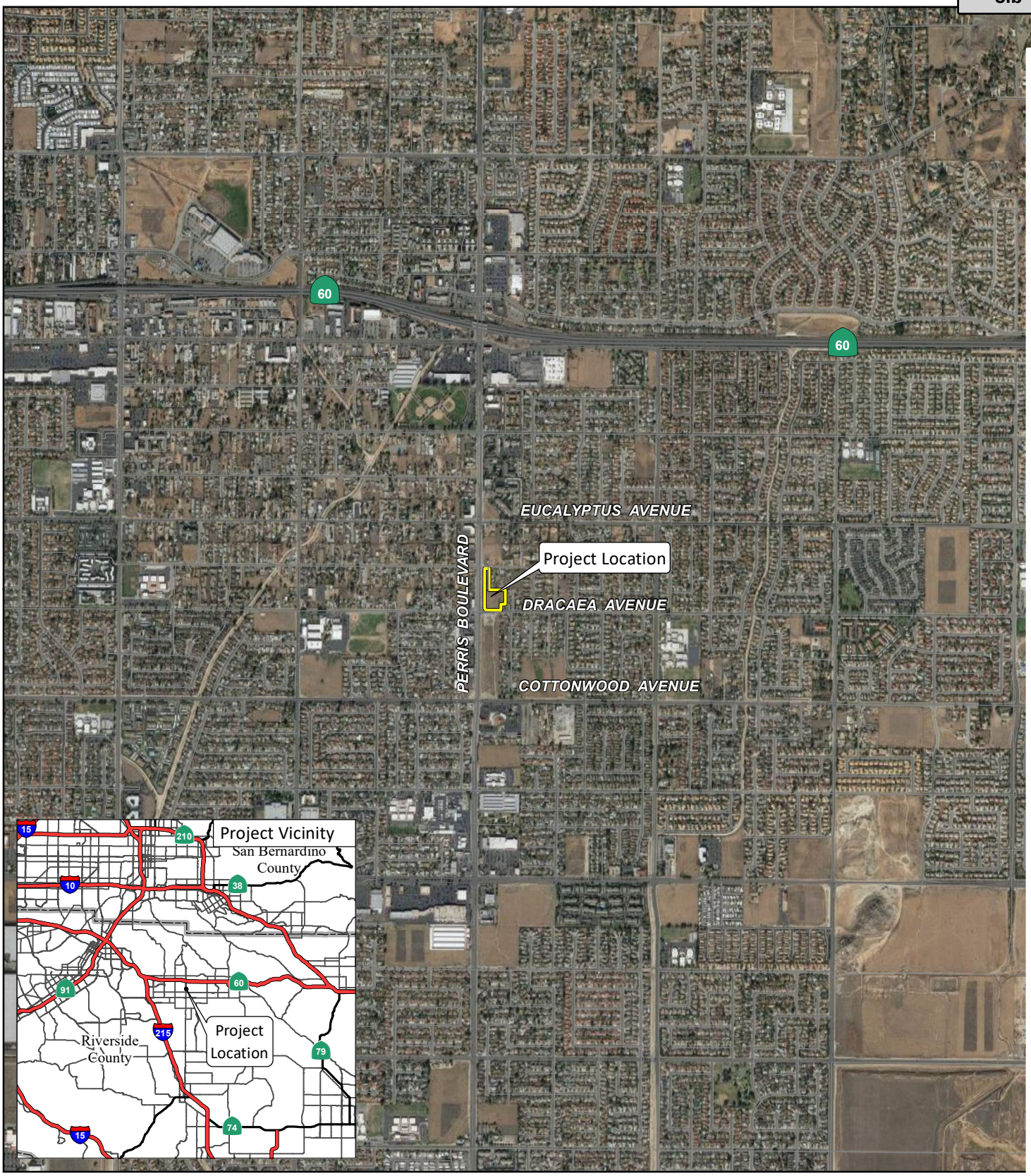

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FIGURE 2-1

N

0 1000 2000
FEET

Perris/Dracaea Commercial Projec
Transportation Impact Analys

Regional and Project Location

SOURCE: ESRI Streetmap, 2013; Google Earthl, 2018.

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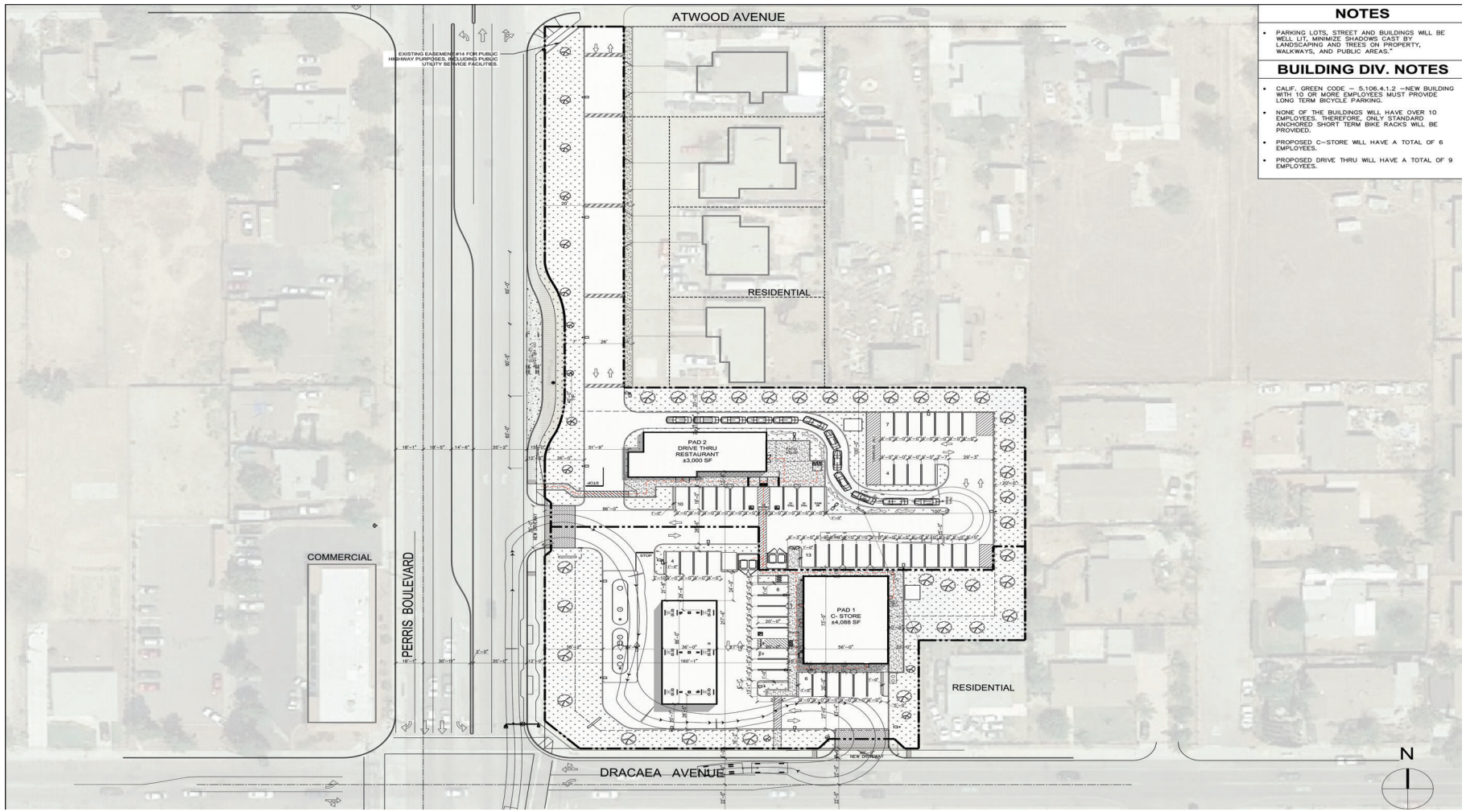

LSA

FIGURE 2-2

N

0 60 120

FEET

SOURCE: Cadence Capital Investments LLC; September, 2020

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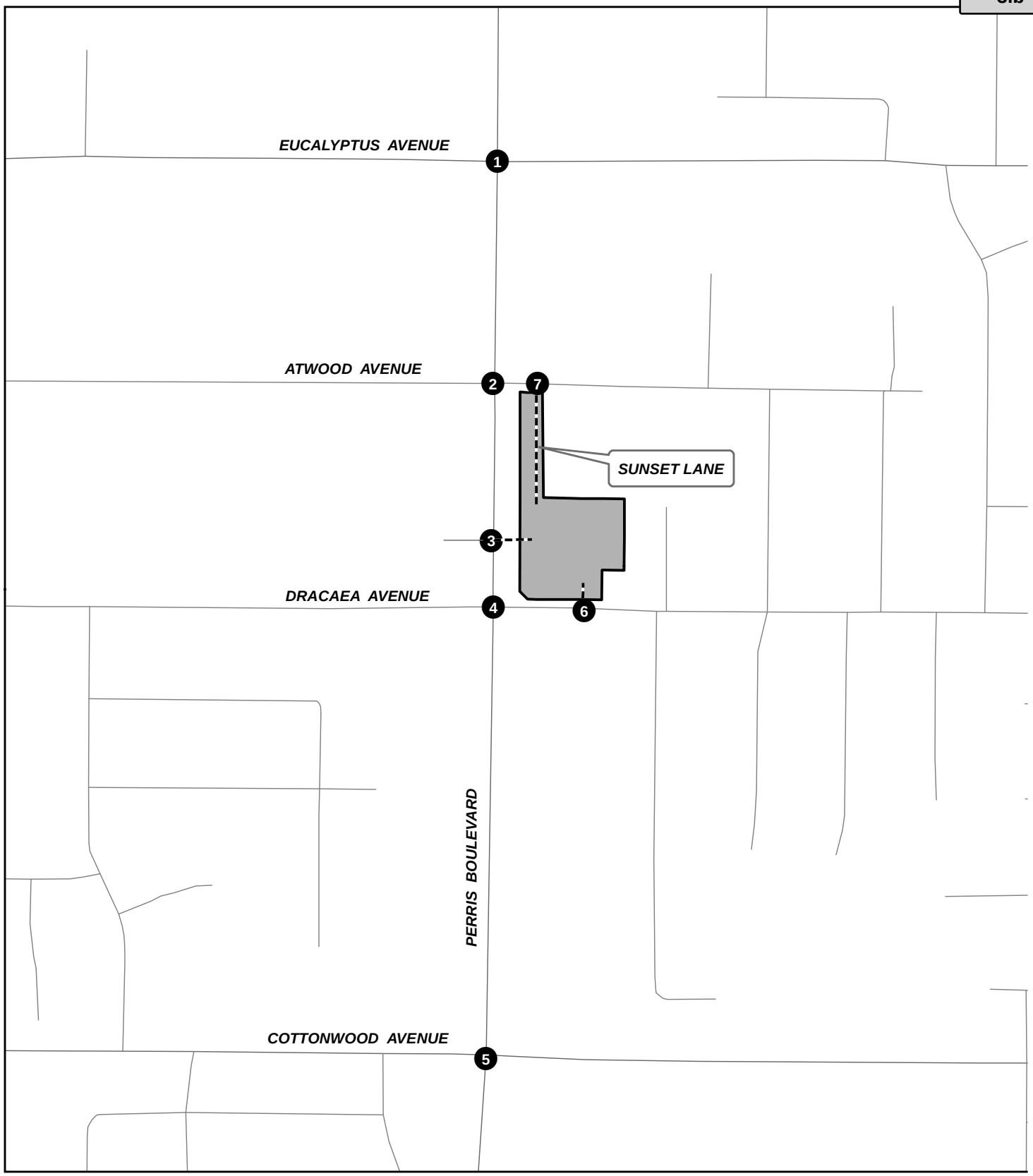
Perris/Dracaea Commercial Project
Transportation Impact Analysis

Conceptual Site Plan



LSA

LEGEND

Project Site

Driveway

Study Intersection

N

0 200 400

FEET

SOURCE: ESRI Streetmap, 2013

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FIGURE 2-3

Perris/Dracaea Commercial Projec
Transportation Impact Analys

Study Area Intersections

3.0 LEVEL OF SERVICE ANALYSIS METHODOLOGY

3.1 LEVEL OF SERVICE DEFINITIONS

LOS can be characterized for the whole intersection, each intersection approach, and by each lane group. Control delay alone is used to characterize LOS for the entire intersection. Control delay quantifies the increase in travel time due to the traffic signal control, and is a surrogate measure of driver discomfort and fuel consumption.

A complete description of the meaning of LOS can be found in the Transportation Research Board Special Report 209, *Highway Capacity Manual* (HCM). The HCM establishes LOS A through F for intersections. A description of LOS for signalized and unsignalized intersections is summarized in Table 3-A. A description of LOS for roadway segments is summarized in Table 3-B.

Table 3-C shows the LOS criteria for unsignalized and signalized intersections. Table 3-D summarizes the LOS criteria used to evaluate roadway segments based on the daily capacity for each functional classification as per the City's TIA guidelines. The daily traffic volumes represent the total vehicles (both directions) traveling on a roadway segment within 24 hours.

For all study area intersections, the *Highway Capacity Manual 6th Edition* (HCM 6) analysis methodologies were used to determine intersection LOS. Intersection LOS was calculated using Synchro 10 software, which uses the HCM 6 methodologies.

3.2 LEVEL OF SERVICE PROCEDURES AND STANDARDS

Study intersections and roadway segments analyzed in this report are under the jurisdiction of the City of Moreno Valley. The City uses both LOS C and LOS D as its minimum level of service criteria for intersections and roadway segments. As stated in both the *City of Moreno Valley General Plan* (dated July 11, 2006) and the City's TIA Guidelines, LOS D is applicable to intersections and roadway segments adjacent to employment-generating land uses while LOS C is applicable to all other areas. Figure 3-1 illustrates the LOS standards for intersections and roadway segments within the City.

At study intersections and roadway segments under the jurisdiction of the City, the operating requirements pursuant to the City's TIA guidelines are as follows:

3.2.1 Study Intersections, Signalized

- Any signalized study intersection operating at acceptable LOS without project traffic at which the addition of project traffic causes the intersection to degrade to unacceptable LOS shall identify improvements to provide acceptable LOS.
- Any signalized study intersection that is operating at unacceptable LOS without project traffic where the project increases delay by 5.0 or more seconds shall identify improvements to offset the increase in delay.

3.2.2 Study Intersections, Unsignalized

An operational improvement is required if the study determines that either section a) or both sections b) and c) occur:

a) The addition of project-related traffic causes the intersection to degrade from an acceptable LOS to unacceptable LOS.

OR

b) The project adds 5.0 seconds or more of delay to an intersection that is already projected to operate without project traffic at unacceptable LOS,

AND

c) The intersection meets the peak hour traffic signal warrant after the addition of project traffic.

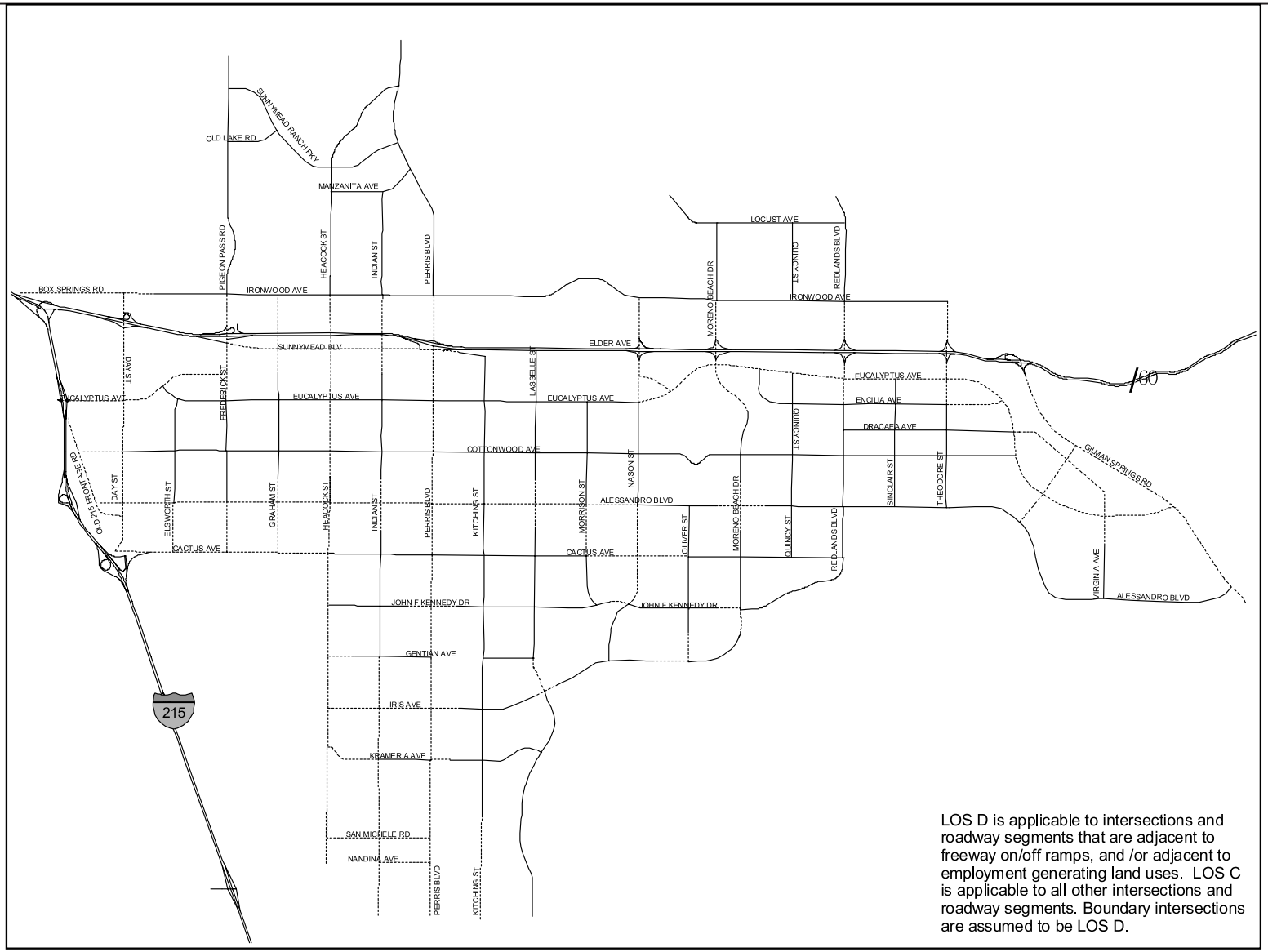
If the conditions above are satisfied, improvements should be identified that achieve the following:

- LOS D or better for case a) above or to pre-project LOS and delay for case b) and c) above.

3.2.3 Roadway Segments

- Any study roadway segment operating at acceptable LOS without project traffic on which the addition of project traffic causes the segment to degrade to unacceptable LOS should identify improvements to achieve acceptable LOS.
- Any roadway segment that operates at unacceptable LOS in the no project scenario where the project adds traffic in excess of 5 percent of the roadway capacity (i.e., a V/C ratio increase of 0.05) should identify improvements to add capacity to the segment.

3.3 LIST OF CHAPTER 3.0 FIGURES AND TABLES



MORENO VALLEY

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 C is applicable to all other intersections and roadway segments. Boundary intersections are assumed to be LOS D.

Source: Urban Crossroads, June 2004.

LSA

FIGURE 3-1

Perris/Dracaea Commercial Project
Transportation Impact Analysis

City of Moreno Valley LOS Standards

SOURCE: Moreno Valley General Plan Final Program EIR, 2006

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Table 3-A: Intersection Level of Service Definitions

LOS	Description
A	Traffic operations with a control delay of 10 seconds per vehicle or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If LOS A is the result of favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.
B	Traffic operations with control delay between 10 seconds per vehicle and 20 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.
C	Traffic operations with control delay between 20 and 35 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of the insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.
D	Traffic operations with control delay between 35 and 55 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.
E	Traffic operations with control delay between 55 and 80 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.
F	Traffic operations with control delay exceeding 80 seconds per vehicle or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Source: *Highway Capacity Manual* (6th Edition)

Table 3-B: Roadway Segment Level of Service Definitions

LOS	Description
A	Describes primarily free-flow operation. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control Delay at the boundary intersection is minimal. The travel speed exceeds 80% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
B	Describes reasonably unimpeded operation. The ability to maneuver within the traffic stream is only slightly restricted, and control delay at the boundary is not significant. The travel speed is between 67% and 80% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
C	Describes stable operation. The ability to maneuver and change lanes at mid-segment locations may be more restricted than at LOS B. Longer queues at the boundary intersection may contribute to lower travel speeds. The travel speed is between 50% and 67% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
D	Indicates a less stable condition in which small increases in flow may cause substantial increases in delay and decreases in travel speed. This operation may be due to adverse signal progression, high volume, or inappropriate signal timing at the boundary intersections. The travel speed is between 40% and 50% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
E	Characterized by unstable operation and significant delay. Such operations may be due to some combination of adverse progression, high volume, and inappropriate signal timing at the boundary intersections. The travel speed is between 30% and 40% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
F	Characterized by flow at extremely low speed. Congestion is likely occurring at the boundary intersections, as indicated by high delay and extensive queuing. The travel speed is between 30% or less of the base free-flow speed, and the volume-to-capacity ratio is greater than 1.0.

Source: *Highway Capacity Manual* (6th Edition)

Table 3-C: Level of Service Criteria for Unsignalized and Signalized Intersections

Level of Service	Unsignalized Intersection Average Delay per Vehicle (sec.)	Signalized Intersection Average Delay per Vehicle (sec.)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

Source: *Highway Capacity Manual* (6th Edition)

Table 3-D: Roadway Segment Capacity and Levels of Service

Type of Roadway	Level of Service*				
	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

*Maximum Average Daily Traffic (ADT)
Source: City of Moreno Valley Transportation Engineering Division *Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment*, June 2020

4.0 EXISTING CONDITIONS

4.1 EXISTING ROADWAY NETWORK

Figure 4-1 illustrates existing study intersection geometrics and traffic control. Within the City of Moreno Valley, all major roadways are classified based on the City's Circulation Plan. Figure 4-2 illustrates roadway classifications defined by the City's Circulation Plan. Table 4-A summarizes the classifications and the number of mid-block arterial lanes on major roadways in the TIA study area. Following is a brief description of these roadways:

- Perris Boulevard: Based on the City's Circulation Plan, Perris Boulevard is designated as a "Divided Arterial – 6 lane" in the study area. Between Eucalyptus Avenue and Cottonwood Avenue, Perris Boulevard is a four-lane divided road with a two-way-left-turn median. There are no bike lanes in this segment. There is also no provision for on-street parking.
- Atwood Avenue: Atwood Avenue is not designated in the City's Circulation Plan. Between Perris Boulevard and Birchwood Drive, Atwood Avenue is a two-lane undivided road. There are no bike lanes in this segment. There is also no provision for on-street parking.
- Dracaea Avenue: Dracaea Avenue is not designated in the City's Circulation Plan. Between Perris Boulevard and Birchwood Drive, Dracaea Avenue is a two-lane undivided road. There are no bike lanes in this segment. However, there is provision for on-street parking on both sides of the segment.

4.2 PROJECT DESIGN FEATURES

The following project design features with be implemented as improvements for the striping plan along project frontage:

- Remove the existing TWLTL on Perris Boulevard, from south of Pedro's Taco Shop Driveway to Dracaea Avenue;
- Replace the TWLTL with the raised median along the entire project frontage on Perris Boulevard extending up to south of the Pedro's Taco Shop driveway;
- Create left-turn pockets in the raised median for the northbound and southbound movements at the intersection of Perris Boulevard/Atwood Avenue, with storage lengths of 150 ft and 125 ft, respectively;
- Extend the southbound left-turn pocket at the intersection of Perris Boulevard/Dreacea Avenue by 5 ft; and
- Add a bus bay on the east side of Perris Boulevard, north of the intersection of Perris Boulevard/Auto Center Driveway-Project Driveway 1.

Due to the proposed raised median, Auto Center Driveway will operate as a RIRO driveway. Additionally, eastbound and westbound left-turn and through movements will be prohibited at the intersection of Perris Boulevard/Atwood Avenue under with project conditions. Figure 4-3 illustrates

the project design features. Figure 4-4 illustrates study intersection geometrics and traffic control under with project conditions.

4.3 EXISTING BICYCLE FACILITIES

Figure 4-5 illustrates the existing and proposed bikeways in the City, per the City of Moreno Valley Bicycle Master Plan, dated November 2014. At present, bike lanes do not exist along Perris Boulevard or Dracaea Avenue within the study area. However, a bicycle boulevard has been proposed along Dracaea Avenue between Elsworth Street and Nason Street in the City's Bicycle Master Plan. No bicycle facility has been recommended along Perris Boulevard.

4.4 EXISTING TRANSIT FACILITIES

Riverside Transit Agency (RTA) is the Consolidated Transportation Service Agency for western Riverside County and is responsible for coordinating transit services throughout the approximately 2,500-square mile service area. RTA provides both local and regional services throughout the region with 33 fixed routes, five CommuterLink express routes, and Dial-A-Ride services using 334 vehicles. RTA Local bus routes 18, 19, 19A, 20, and 31 operate within the study area, connecting Moreno Valley to neighboring communities including Perris, Riverside, Banning, Beaumont, and San Jacinto.

4.5 EXISTING PEDESTRIAN FACILITIES

The City of Moreno Valley considers other methods and modes of transportation to improve mobility around the region while creating environmental benefits, health benefits, and economic benefits for the City. Figure 4-6 illustrates the Master Plan of Trails within the City and surrounding region. These trails include bikeways and multiuse trails readily available and planned for both pedestrian and cyclist usage.

4.6 EXISTING TRAFFIC VOLUMES

For all intersections and roadway segments, existing traffic volumes are based on counts collected by Counts Unlimited in May 2019. Daily tube counts were collected for roadway segments while a.m. and p.m. peak hour turning-movement counts were collected at study intersections. Detailed count sheets are included in Appendix B.

Counts were not collected at the intersection of Sunset Lane/Atwood Avenue. At present, there are four single-family houses located on Sunset Lane. A separate trip generation was developed for these houses using the rates obtained from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (10th Edition). As shown in Table 4-B, these residential units generate 3 trips in both the a.m. and p.m. peak hours and 38 daily trips. At the intersection of Sunset Lane/Atwood Avenue, all the inbound trips from these residential units were assumed to make an eastbound right, while all the outbound trips were assumed to make a northbound left. The eastbound and westbound through volumes at the intersection were obtained based on balance of flow using volumes from the adjacent intersection of Perris Boulevard/Atwood Avenue. This volume development methodology has been approved by City staff. Additionally, eastbound and westbound through volumes at the future intersection of Project Driveway 2/Dracaea Avenue were obtained

based on balance of flow using volumes from the adjacent intersection of Perris Boulevard/Dracaea Avenue.

Vehicle classification counts were conducted at the following intersections: Perris Boulevard/ Eucalyptus Avenue, Perris Boulevard/Dracaea Avenue, and Perris Boulevard/Cottonwood Avenue. At these locations, counts were converted to Passenger Car Equivalent (PCE) volumes. The concept of PCEs accounts for the larger impact of trucks on traffic operations. It does so by assigning each type of truck a PCE factor that represents the number of passenger vehicles that could travel through an intersection in the same time that a particular type of truck could. Pursuant to the City's TIA guidelines, PCE volumes at study intersections were computed using a factor of 1.5 for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for trucks with four or more axles.

The percentage of trucks at the remaining study intersections without classification counts was determined based on truck percentages derived from adjacent intersections with classification counts. At these locations, truck PCE volumes were computed using a PCE factor of 2.0 for all trucks, consistent with the HCM 6 methodologies.

Figure 4-7 illustrates existing peak hour traffic volumes at study intersections. Table 4-C summarizes the existing roadway segment daily traffic volumes.

4.7 EXISTING LEVELS OF SERVICE

4.7.1 Study Intersections

Figure 4-1 illustrates existing study intersection geometrics and traffic control. An intersection LOS analysis was conducted for existing conditions using the methodologies previously discussed. Table 4-D summarizes the results of this analysis and shows that the following intersection is currently operating at an unsatisfactory LOS:

- Perris Boulevard/Atwood Avenue (both a.m. and p.m. peak hours).

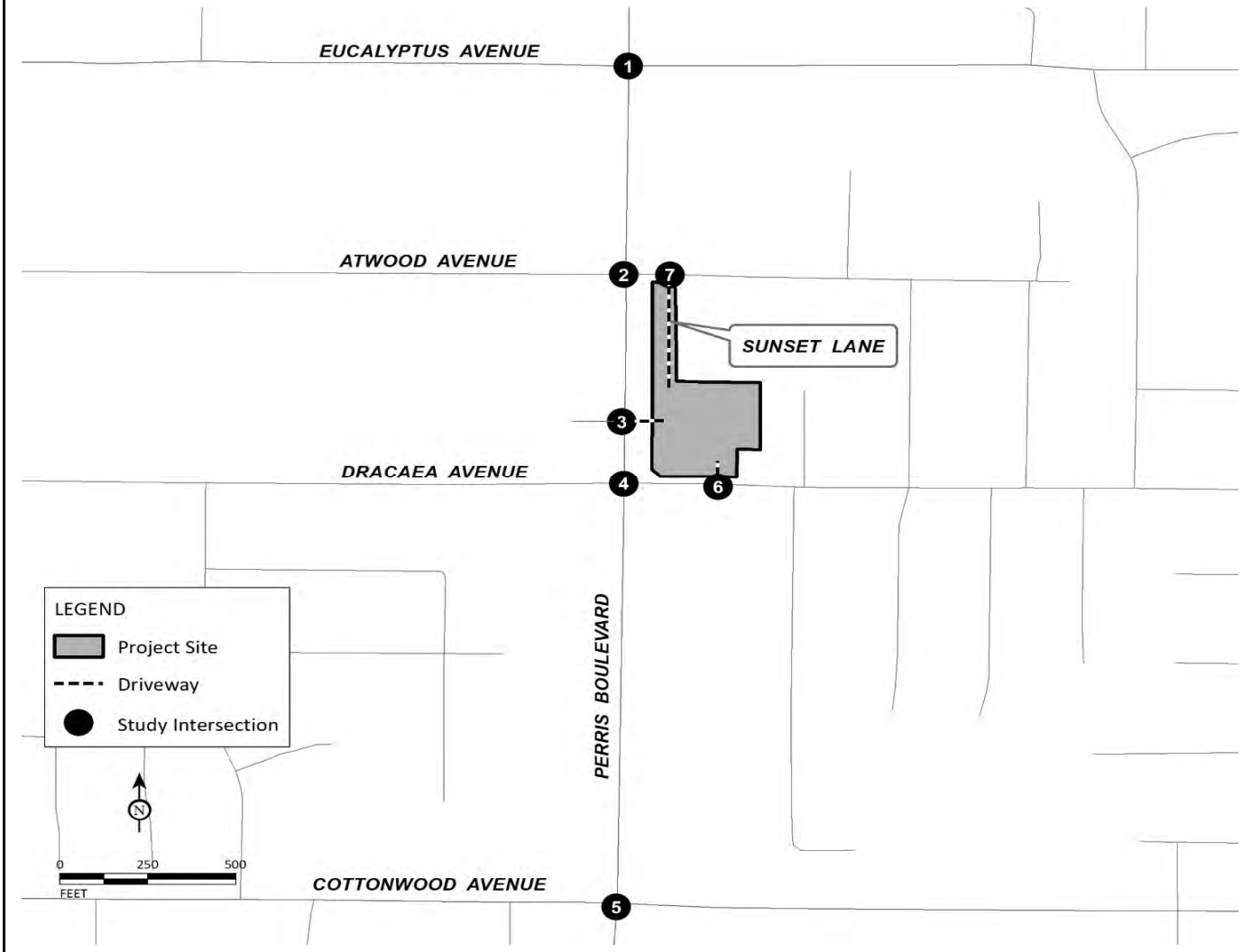
All other study intersections are forecast to operate at a satisfactory LOS.

4.7.2 Roadway Segments

A roadway segment LOS analysis was conducted for existing conditions using the methodologies previously discussed. Table 4-E summarizes the results of this analysis and shows that all roadway segments are currently operating at a satisfactory LOS.

4.8 LIST OF CHAPTER 4.0 FIGURES AND TABLES

- Figure 4-1: Existing Study Intersection Geometrics and Traffic Control
- Figure 4-2: City of Moreno Valley General Plan Street Classifications
- Figure 4-3: Conceptual Striping Plan for Proposed Improvements
- Figure 4-4: Study Intersection Geometrics and Traffic Control under with Project Conditions
- Figure 4-5: City of Moreno Valley Bicycle Lane Network Plan



1 Perris Boulevard/Eucalyptus Avenue	2 Perris Boulevard/Atwood Avenue	3 Perris Boulevard/Auto Center Driveway - Project Driveway 1	4 Perris Boulevard/Dracaea Avenue	5 Perris Boulevard/Cottonwood Avenue
Intersection Does Not Exist				
6 Project Driveway 2/Dracaea Avenue	7 Sunset Lane/Atwood Avenue			

FIGURE 4-1

LSA

Legend

Signal

Stop Sign

D De Facto Right Turn

Perris/Dracaea Commercial Project
Transportation Impact Analysis

Existing Study Intersection Geometrics and Traffic Control

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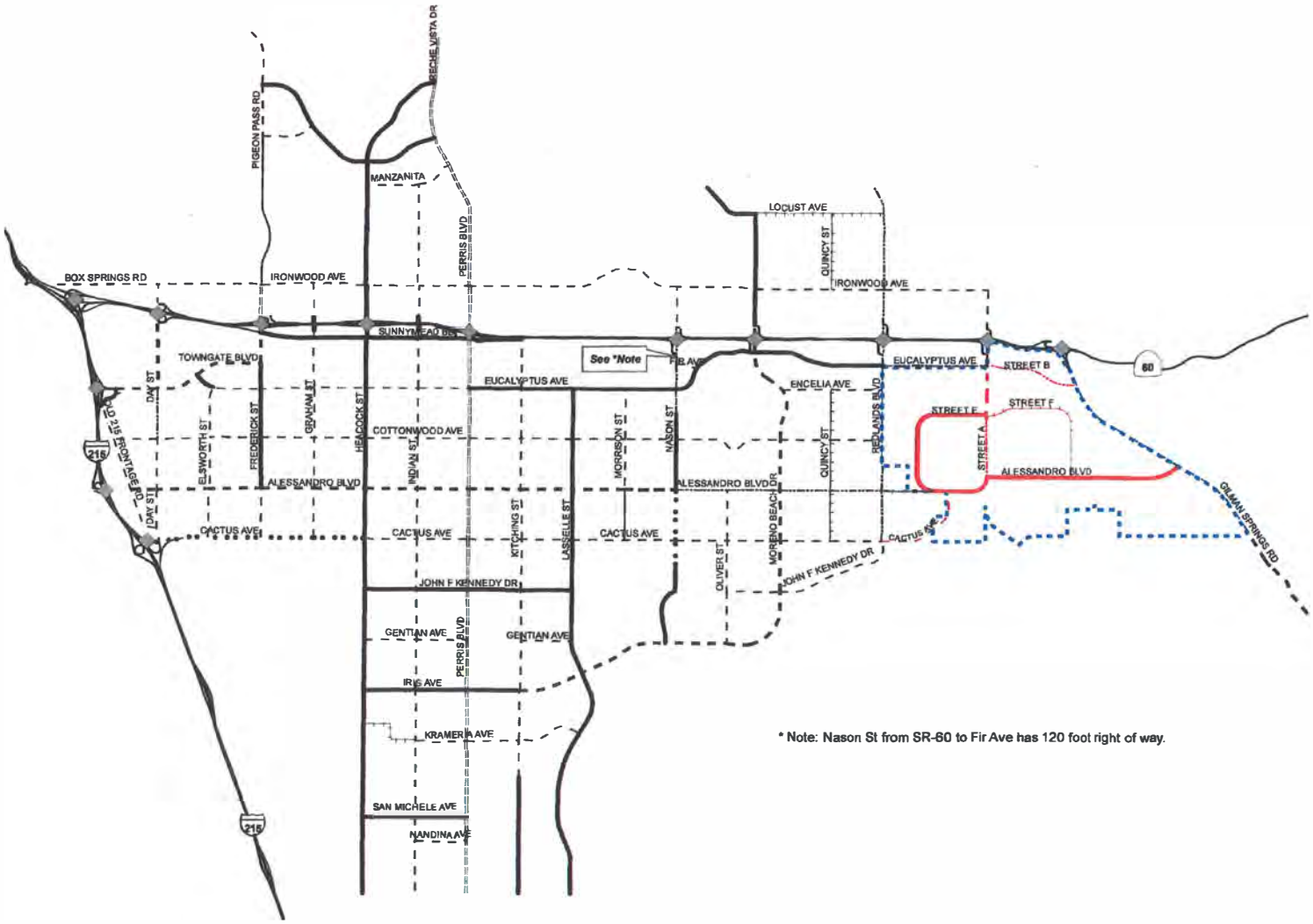

LSA

Legend

- 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

FIGURE 4-2

Perris/Dracaea Commercial Project
Trransportation Impact Analysis

City of Moreno Valley General Plan Street Classifications

SOURCE: City of Moreno Valley Staff

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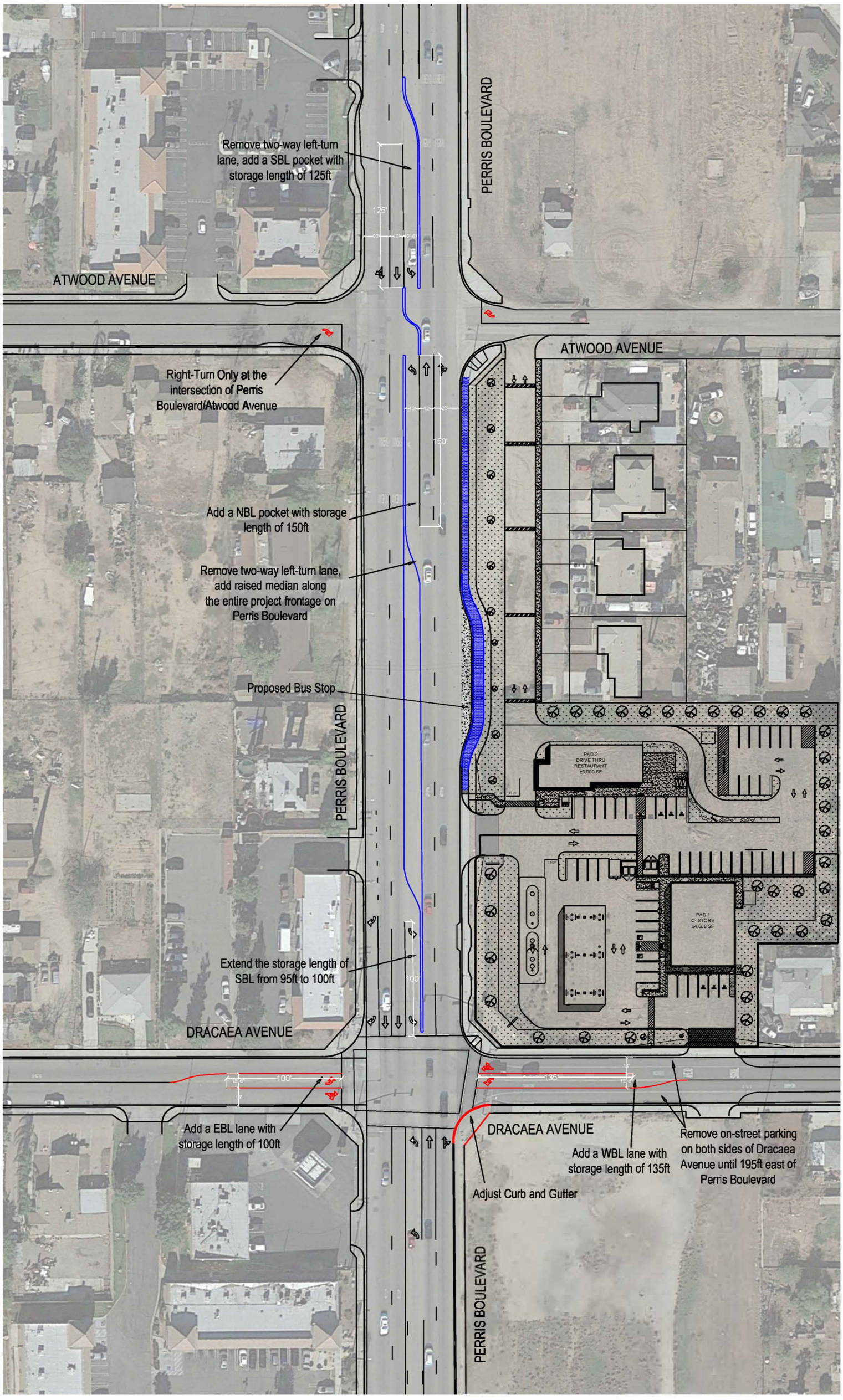

LSA

LEGEND

- Existing
- Project Design Features
- Proposed Improvements

0 70 140
FEET

FIGURE 4-3

Perris/Dracaea Commercial Project
Transportation Impact Analysis

Conceptual Striping Plan for the Proposed Improvements

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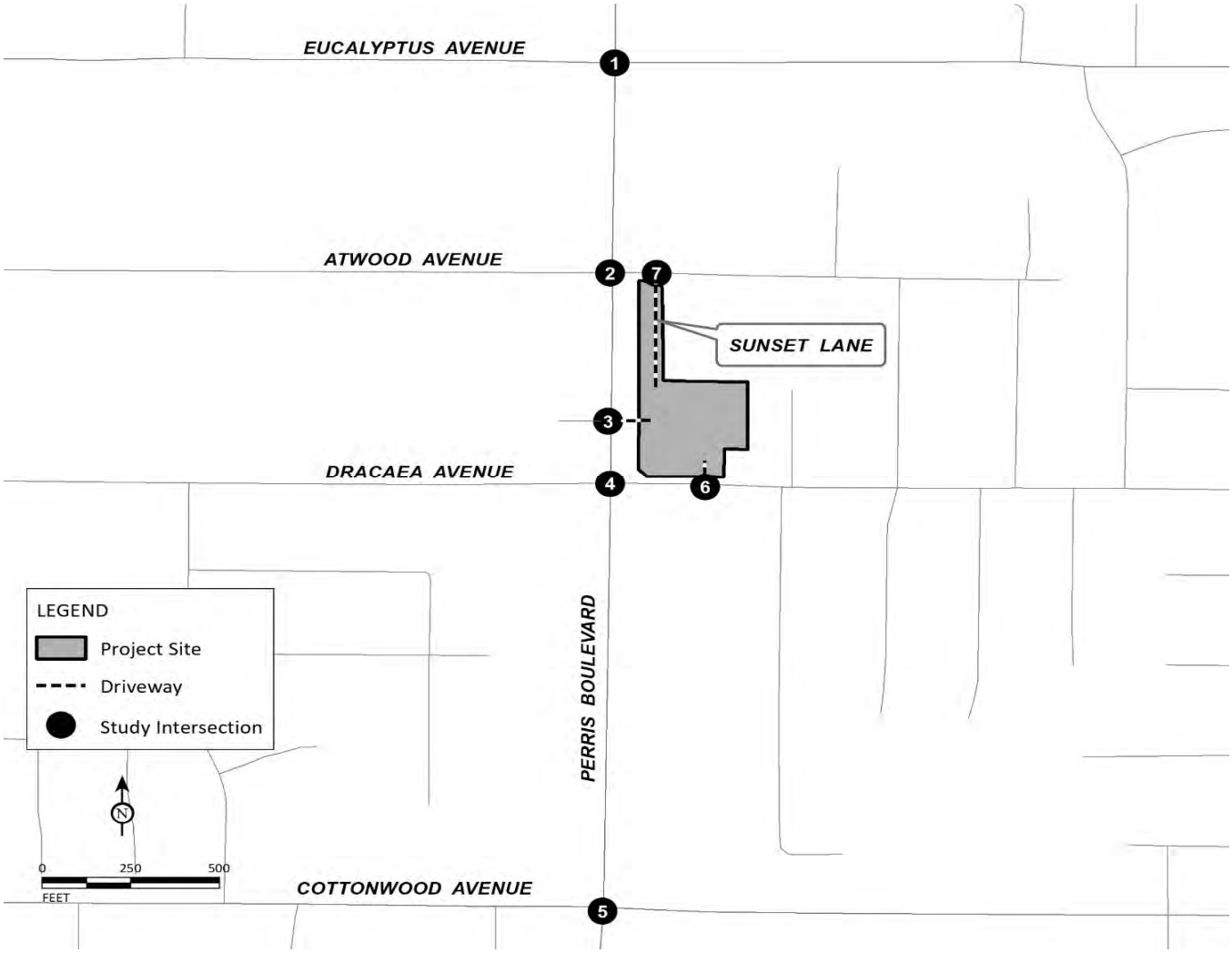

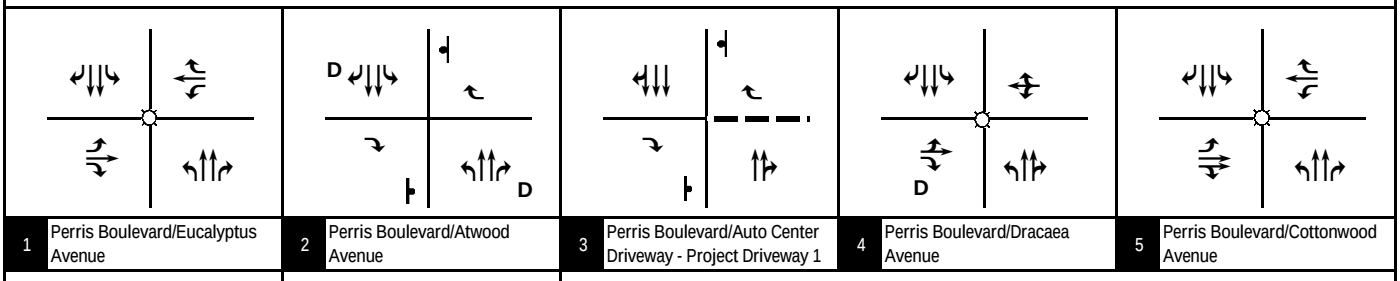

FIGURE 4-4

LSA

Legend

Signal
Stop Sign
Project Driveway

D De Facto Right Turn

Perris/Dracaea Commercial Project
Transportation Impact Analysis

Study Intersections Geometrics and Traffic Control under with Project Conditions

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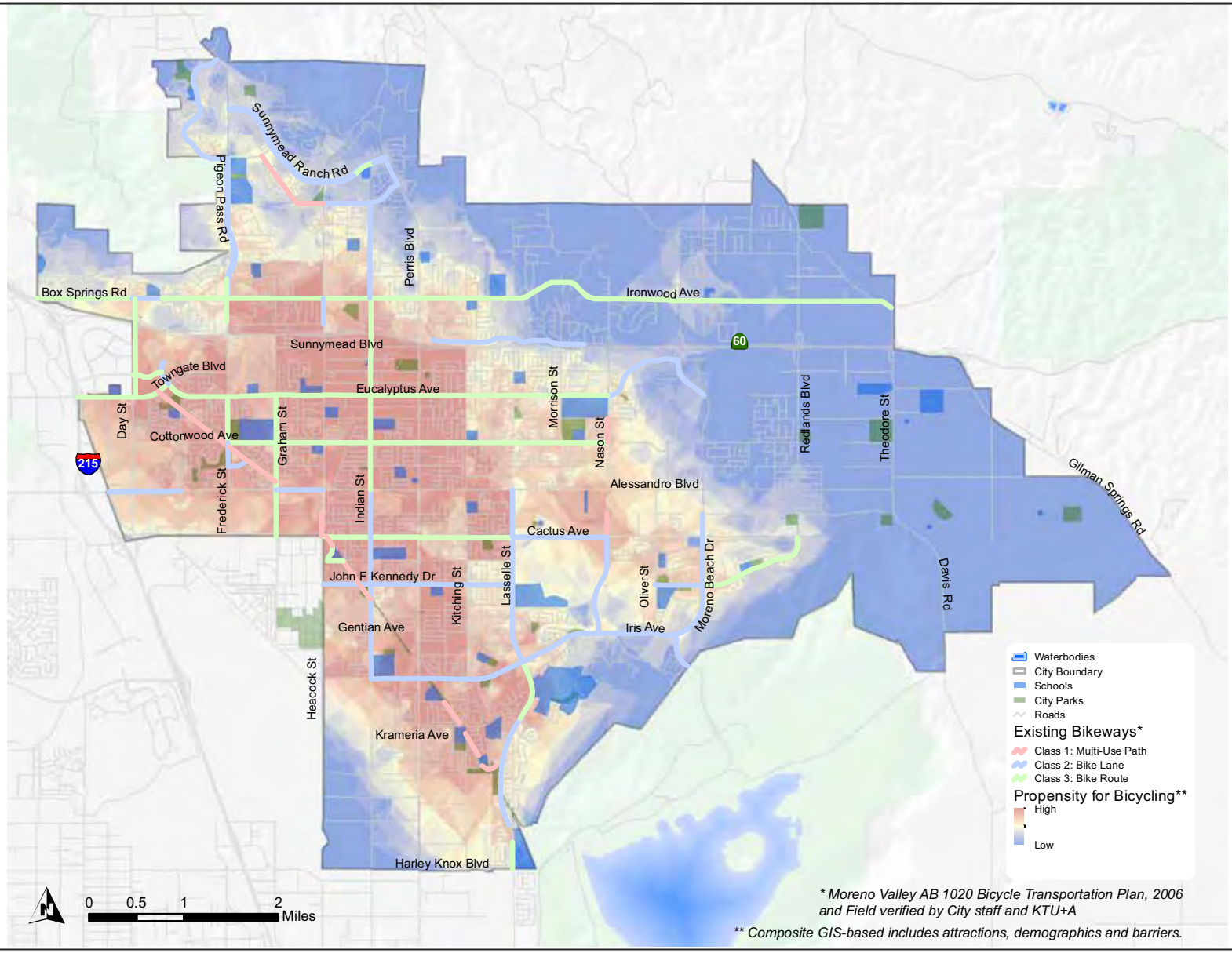

LSA

FIGURE 4-5

Perris/Dracaea Commercial Project
Transportation Impact Analysis

City of Moreno Valley Bicycle Lane Network Plan

SOURCE: Moreno Valley Bicycle Master Plan, 2014

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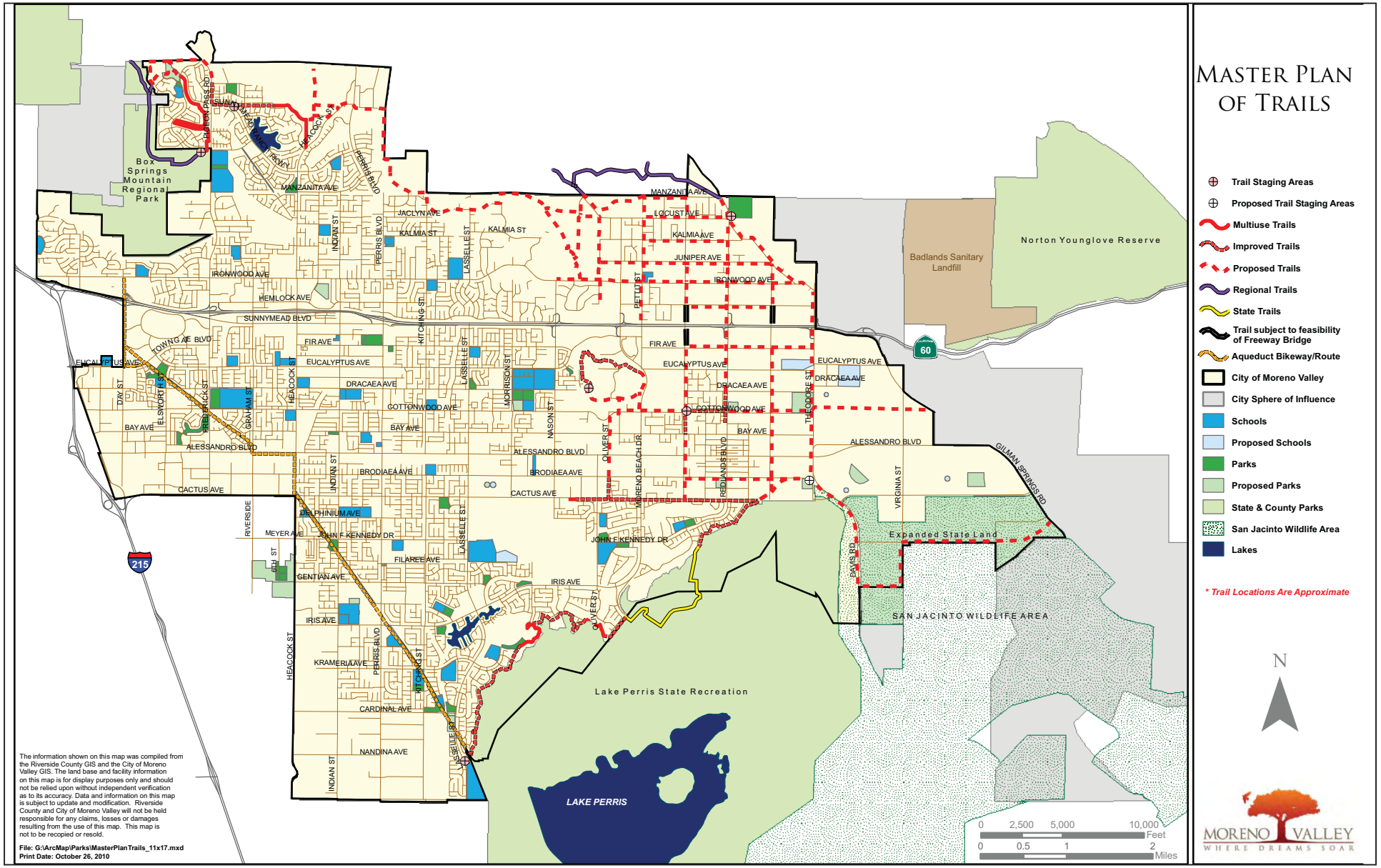

Master Plan of Trails

- Trail Staging Areas
- Proposed Trail Staging Areas
- Multiuse Trails
- Improved Trails
- Proposed Trails
- Regional Trails
- State Trails
- Trail subject to feasibility of Freeway Bridge
- Aqueduct Bikeway/Route
- City of Moreno Valley
- City Sphere of Influence
- Schools
- Proposed Schools
- Parks
- Proposed Parks
- State & County Parks
- San Jacinto Wildlife Area
- Lakes

** Trail Locations Are Approximate*

MORENO VALLEY
WHERE DREAMS SOAR

LSA

FIGURE 4-6

Perris/Dracaea Commercial Project
Transportation Impact Analysis

City of Moreno Valley Master Plan of Trails

SOURCE: Moreno Valley Master Plan Trails Map, 2010

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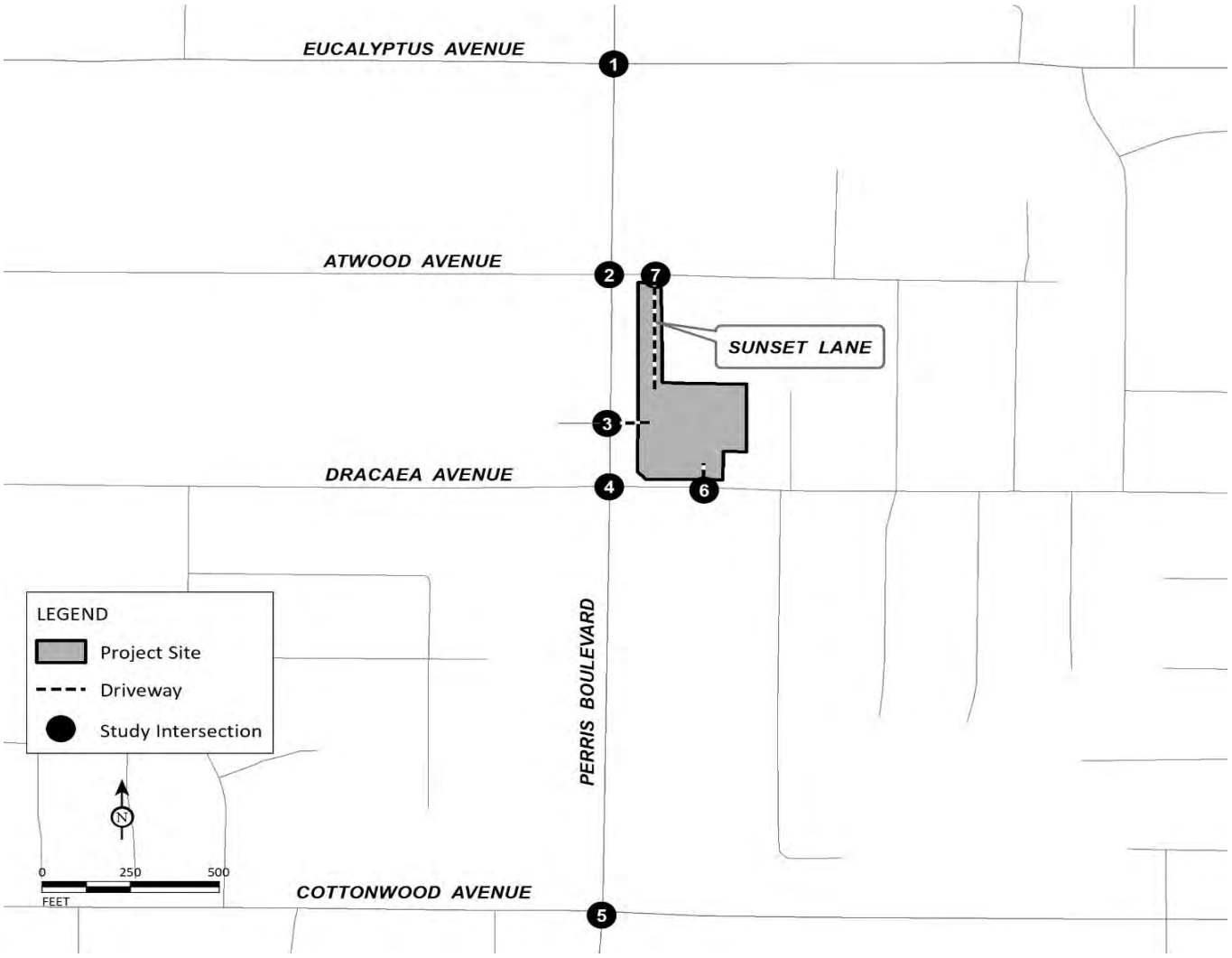

32 / 45 ↲ 1006 / 1063 ↓ 72 / 97 ↳ 22 / 51 ↱ 50 / 51 ↑ 1002 / 978 ↗ 58 / 59 73 / 189 → ↰ ← 217 / 127 56 / 79 ↲ ↳ 83 / 52 194 / 108 ↱	16 / 15 ↲ 1135 / 1120 ↓ 16 / 42 ↳ 13 / 27 ↱ 52 / 43 ↑ 1067 / 1059 ↗ 3 / 1 1 / 1 → ↰ ← 2 / 1 37 / 36 ↲ ↳ 4 / 3 9 / 13 ↱	7 / 2 ↲ 1157 / 1151 ↓ 1 / 0 ↲ 1137 / 1105 ↑	86 / 68 ↲ 1039 / 1036 ↓ 33 / 47 ↳ 64 / 69 ↱ 50 / 29 ↑ 1006 / 988 ↗ 20 / 36 71 / 102 → ↰ ← 96 / 73 52 / 22 ↲ ↳ 70 / 32 67 / 47 ↱	109 / 83 ↲ 930 / 964 ↓ 131 / 98 ↳ 87 / 92 ↱ 59 / 64 ↑ 870 / 931 ↗ 49 / 31 224 / 197 → ↰ ← 276 / 134 54 / 75 ↲ ↳ 61 / 23 159 / 87 ↱
1 Perris Boulevard/Eucalyptus Avenue	2 Perris Boulevard/Atwood Avenue	3 Perris Boulevard/Auto Center Driveway - Project Driveway 1	4 Perris Boulevard/Dracaea Avenue	5 Perris Boulevard/Cottonwood Avenue
Intersection Does Not Exist	← 13 / 16 19 / 42 → ↰ 2 / 1 1 / 2 ↲			
6 Project Driveway 2/Dracaea Avenue	7 Sunset Lane/Atwood Avenue			

LSA

FIGURE 4-7

XXXX / YYYY

AM / PM Peak Hour PCE Volumes

Perris/Dracaea Commercial Project
Transportation Impact Analysis

Existing Peak Hour Traffic Volumes

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LSA

Table 4-A - Existing Roadway Segment Classification

Roadway	#	Segment	Existing Condition Number of Lanes	Jurisdiction	General Plan Classification [1]
Perris Boulevard	1	between Eucalyptus Avenue and Atwood Avenue	4	Moreno Valley	Divided Arterial - 6 Lane
	2	between Atwood Avenue and Dracaea Avenue	4	Moreno Valley	Divided Arterial - 6 Lane
	3	between Dracaea Avenue and Cottonwood Avenue	4	Moreno Valley	Divided Arterial - 6 Lane
Dracaea Avenue	4	between Perris Boulevard and Birchwood Drive	2	Moreno Valley	Not classified in the General Plan

Notes:

[1] Classifications for all segments obtained from the City of Moreno Valley *Circulation Plan* obtained from City Staff.

LSA

Table 4-B - Residential Uses Trip Generation

Land Use		Units	A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Daily
Residential Projects	4	DU							
Trips/Unit[1]			0.19	0.55	0.74	0.62	0.37	0.99	9.44
Trip Generation			1	2	3	2	1	3	38

Note:

DU = Dwelling Units

[1] Rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (10th Edition), Land Use 210 - "Single-Family Detached Housing", Setting/Location - "General Urban/Suburban."

LSA

Table 4-C - Existing Roadway Segment Daily Traffic Volumes

Roadway	#	Segment	Existing ADT	Net Project Trips	Pass-by Trips	Existing With Project ADT
Perris Boulevard	1	between Eucalyptus Avenue and Atwood Avenue	31,829	870	0	32,699
	2	between Atwood Avenue and Dracaea Avenue	30,997	608	(323)	31,282
	3	between Dracaea Avenue and Cottonwood Avenue	29,577	1,044	0	30,621
Dracaea Avenue	4	between Perris Boulevard and Birchwood Drive	4,912	1,996	343	7,251

LSA

Table 4-D - Existing Intersection Levels of Service

Intersection	Jurisdiction	Control	LOS Standard	Without Project			
				A.M. Peak Hour		P.M. Peak Hour	
				Delay (sec.)	LOS	Delay (sec.)	LOS
1 . Perris Boulevard/Eucalyptus Avenue	Moreno Valley	Signal	D	17.9	B	28.1	C
2 . Perris Boulevard/Atwood Avenue	Moreno Valley	TWSC	D	>100	**F** *	>100	**F** *
3 . Perris Boulevard/Auto Center Driveway - Project Driveway 1[1]	Moreno Valley	OWSC	D	10.6	B	0.0	A
4 . Perris Boulevard/Dracaea Avenue	Moreno Valley	Signal	D	27.0	C	7.6	A
5 . Perris Boulevard/Cottonwood Avenue	Moreno Valley	Signal	D	26.2	C	22.2	C
6 . Project Driveway 2/Dracaea Avenue	Moreno Valley	OWSC	D	Does not Exist		Does not Exist	
7 . Sunset Lane/Atwood Avenue	Moreno Valley	OWSC	D	8.7	A	8.8	A

Notes:

OWSC = One-Way Stop Control; TWSC = Two-Way Stop Control

Delay = Average control delay in seconds (For OWSC and TWSC intersections, reported delay is for worst-case movement).

* Exceeds LOS Standard

[1] This intersection operates as an OWSC intersection under without project conditions. Under without project conditions, Synchro did not report a delay at this intersection during the p.m. peak hour as there are no conflicting movements.

LSA

Table 4-E - Existing Roadway Segment Levels of Service

Roadway Segment	Classification[1]	Roadway Capacity[2]	Without Project		
			Daily Volume	V/C Ratio	LOS
Segments on Perris Boulevard					
1 . between Eucalyptus Avenue and Atwood Avenue	Four Lane Divided Arterial	37,500	31,900	0.85	D
2 . between Atwood Avenue and Dracaea Avenue	Four Lane Divided Arterial	37,500	31,000	0.83	D
3 . between Dracaea Avenue and Cottonwood Avenue	Four Lane Divided Arterial	37,500	29,600	0.79	C
Segments on Dracaea Avenue					
4 . between Perris Boulevard and Birchwood Drive	Two Lane Undivided Arterial	12,500	5,000	0.40	A

Notes:

LOS = Level of Service

[1] Classifications for all segments have been obtained from the City of Moreno Valley Transportation Engineering Division *Transportation Impact Analysis Preparation Guide,* dated June 2020.

[2] Roadway capacities for all segmentshave been obtained from the City of Moreno Valley Transportation Engineering Division *Transportation Impact Analysis Preparation Guide,* dated June 2020.

5.0 PROJECT TRAFFIC

5.1 PROJECT TRIP GENERATION

The trip generation for the proposed project was developed using rates from the ITE *Trip Generation Manual*, 10th Edition, for Land Uses 945 – "Gasoline/Service Station with Convenience Market" and 937 – "Coffee/Donut Shop with Drive-Through Window." Table 5-A summarizes the project trip generation.

Gas stations and drive-through restaurants typically draw some of their trips from the adjacent street traffic. Therefore, some of the external project trips will come from the adjacent street traffic. These trips are not actually "new" trips added to the surrounding circulation system. These trips are referred to as "pass-by" trips and are made as intermediate stops en route to a destination without diverting from the main route. For the proposed project, pass-by trips would occur on Perris Boulevard and Dracaea Avenue en route to a final destination.

The percentage of pass-by trips for the gas station has been obtained from the ITE *Trip Generation Handbook* (3rd Edition). However, pass-by trip rates for Land Use 937 – "Coffee/Donut Shop with Drive-Through Window" are not provided in the ITE Manual. Hence, as instructed by City staff, pass-by trips for this land use were not considered. Project pass-by trip assignment has been developed based on traffic counts collected on the adjacent street system. Figure 5-1 illustrates the pass-by trip assignment that has been developed based on existing traffic volumes.

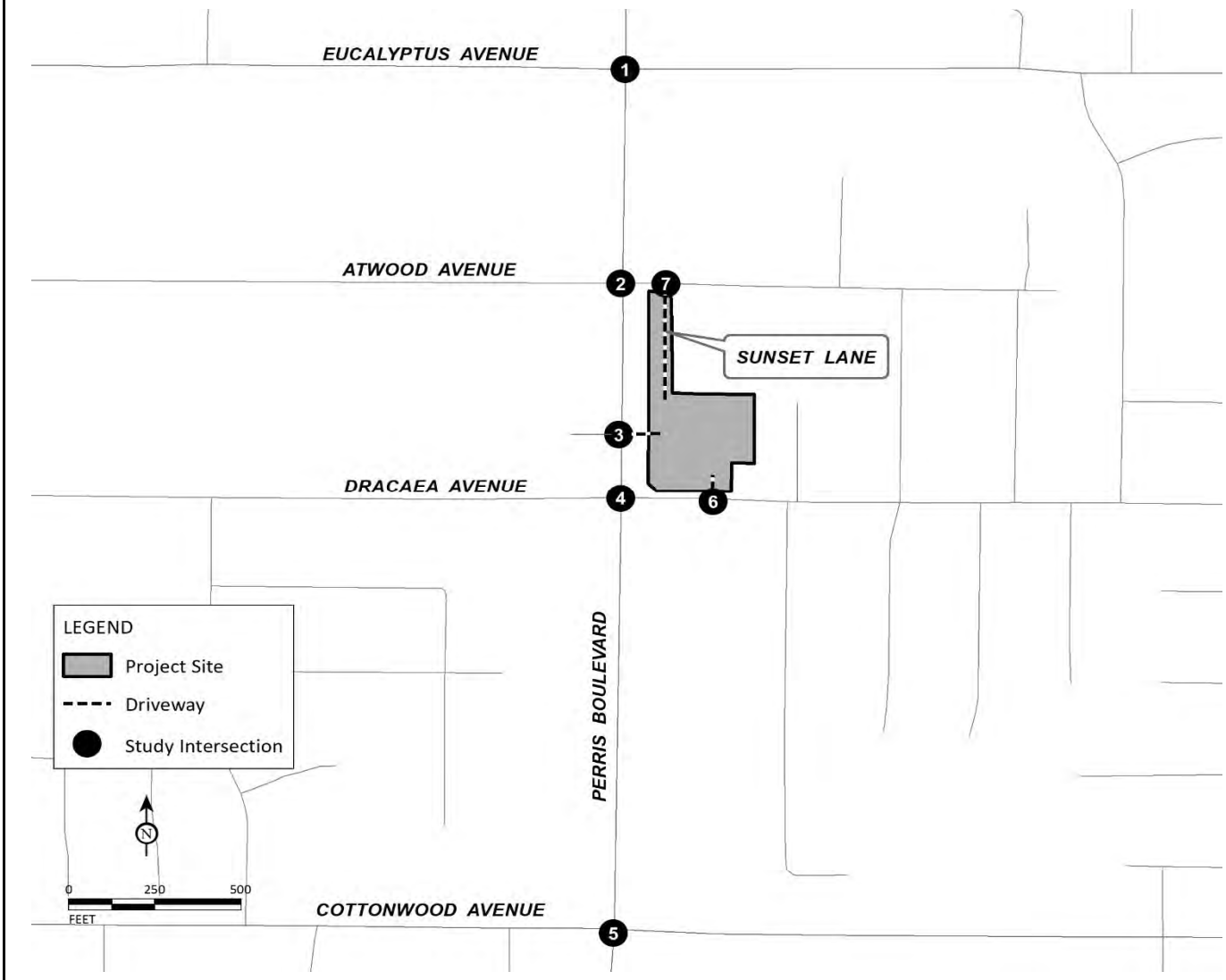
After deducting the pass-by trips from the overall external trips, the net project trip generation has been obtained. As illustrated in Table 5-A, the project is anticipated to generate 324 net trips in the a.m. peak hour, 204 net trips in the p.m. peak hour, and 3,471 net daily trips.

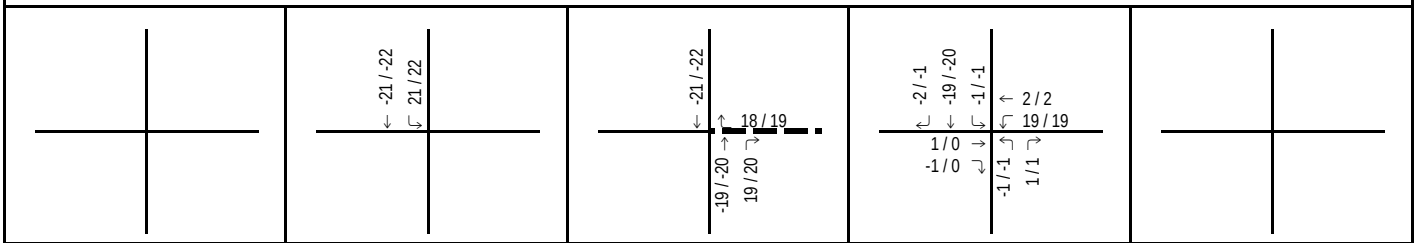
5.2 PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

The distribution of project trips was developed based on the regional roadway network and the locations of residential, employment, and commercial centers in relation to the proposed project. Figure 5-2 illustrates the trip distribution for the proposed project at the study intersections. Trip assignment for project trips is the product of the project trip generation and the trip distribution percentages. Figure 5-3 illustrates the net project trip assignment.

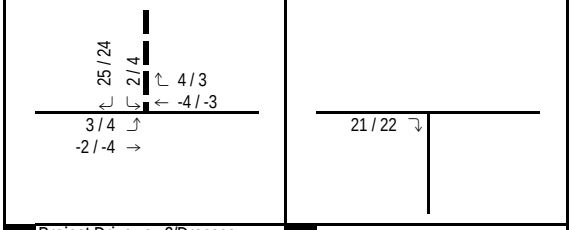
5.3 LIST OF CHAPTER 5.0 FIGURES AND TABLES

- Figure 5-1: Pass-by Trip Assignment
- Figure 5-2: Project Trip Distribution
- Figure 5-3: Net Project Trip Assignment
- Table 5-A: Project Trip Generation





1 Perris Boulevard/Eucalyptus Avenue | 2 Perris Boulevard/Atwood Avenue | 3 Perris Boulevard/Auto Center Driveway - Project Driveway 1 | 4 Perris Boulevard/Dracaea Avenue | 5 Perris Boulevard/Cottonwood Avenue



6 Project Driveway 2/Dracaea Avenue | 7 Sunset Lane/Atwood Avenue

FIGURE 5-1

LSA

XX / YY
AM / PM Peak Hour Trips
Project Driveway

Perris/Dracaea Commercial Project
Transportation Impact Analysis

Pass-by Trip Assignment

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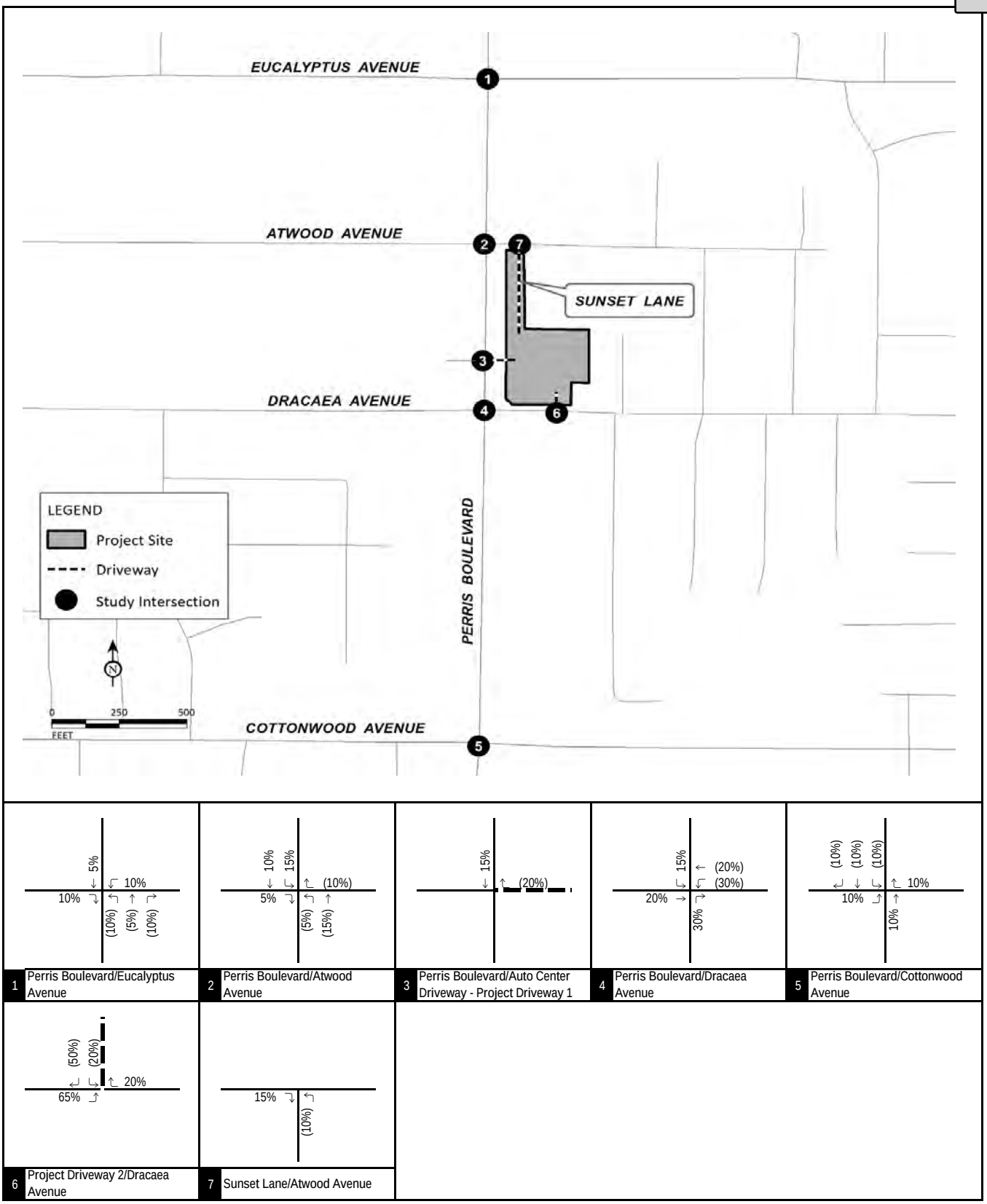

FIGURE 5-2

LSA

XX% (YY%)
Inbound (Outbound) Trip Distribution
---- Project Driveway

Perris/Dracaea Commercial Project
Transportation Impact Analysis

Project Trip Distribution

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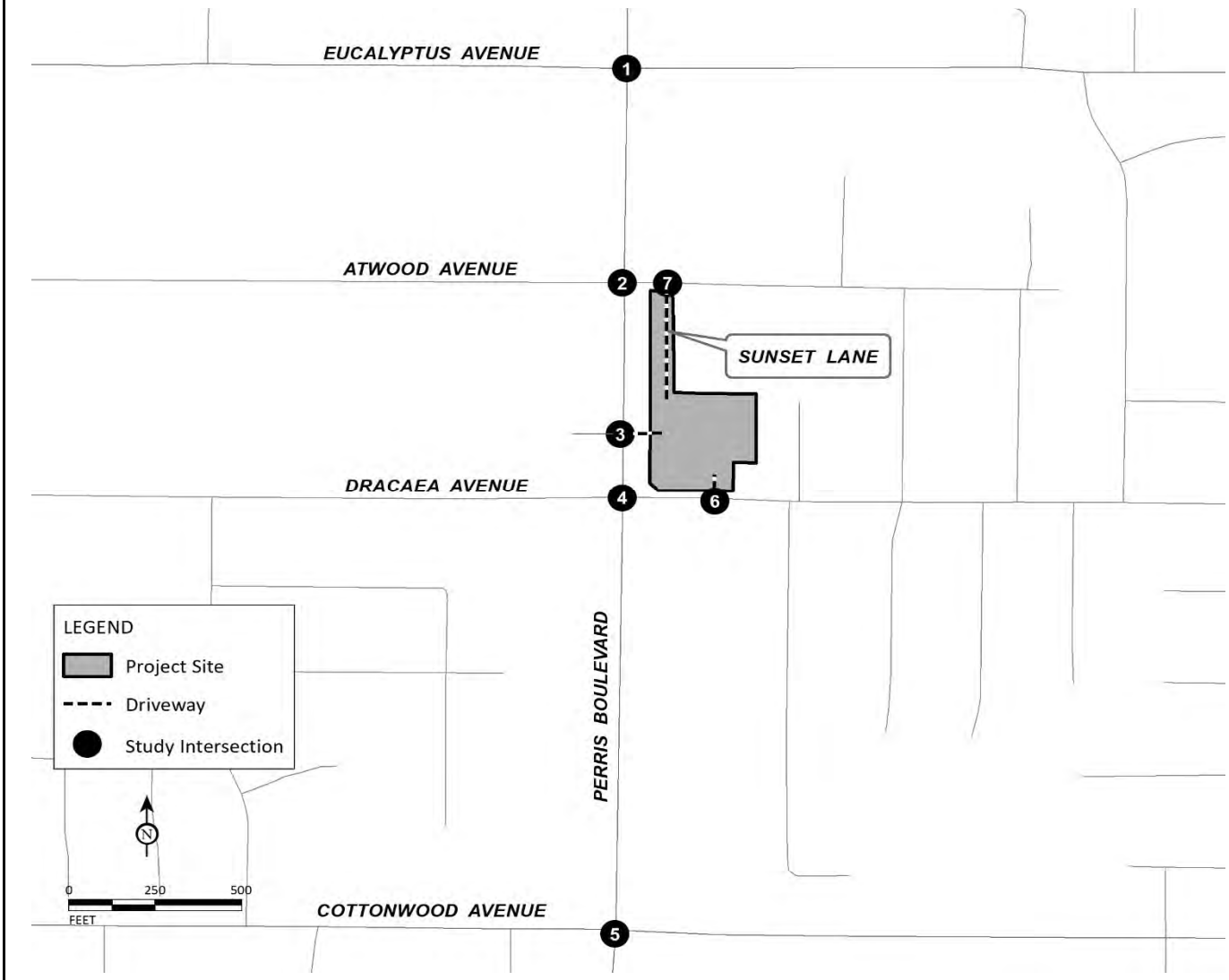

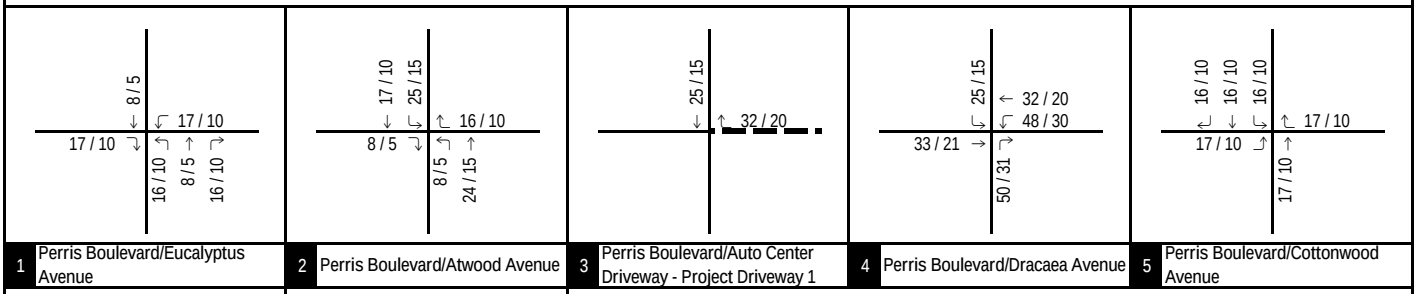

FIGURE 5-3

LSA

XX / YY
AM / PM Peak Hour Trips
Project Driveway

Perris/Dracaea Commercial Project
Transportation Impact Analysis

Net Project Trip Assignment

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LSA

Table 5-A - Project Trip Generation

Land Use	Units	A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Daily
Gas Station with Convenience Store	12 VFP							
Trips/Unit[1]		6.36	6.11	12.47	7.13	6.86	13.99	205.36
Trip Generation		76	73	149	86	82	168	2,464
Pass-by Trips[2]		(47)	(45)	(92)	(48)	(46)	(94)	(1,454)
Total Net Trips		29	28	57	38	36	74	1,010
Coffee Shop with Drive Through Window	3.00 TSF							
Trips/Unit[3]		45.38	43.61	88.99	21.69	21.69	43.38	820.38
Trip Generation		136	131	267	65	65	130	2,461
Total Trip Generation		**212**	**204**	**416**	**151**	**147**	**298**	**4,925**
Pass-By Trips		**(47)**	**(45)**	**(92)**	**(48)**	**(46)**	**(94)**	**(1,454)**
Net Trip Generation		**165**	**159**	**324**	**103**	**101**	**204**	**3,471**

Note:

VFP = Vehicle Fueling Positions; TSF = Thousand Square Feet

[1] Rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (10th Edition), Land Use 945 - "Gasoline/Service Station with Convenience Market", Setting/Location - "General Urban/Suburban."

[2] Pass-by rates from the ITE *Trip Generation Handbook* (3rd Edition) for Land Use 945 - "Gasoline/Service Station with Convenience Market." A pass-by rate of 62% was used for the a.m. peak hour and a pass-by rate of 56% was used for the p.m. peak hour. Since there is no data available for daily pass-by trips, the average of a.m. and p.m. pass-by rates was used as the daily pass-by rate.

[3] Rates from the ITE *Trip Generation Manual* (10th Edition), Land Use 937 - "Coffee/Donut Shop with Drive-Through Window", Setting/Location - "General Urban/Suburban."

6.0 PROJECT COMPLETION ANALYSIS

6.1 PROJECT COMPLETION (2022) WITHOUT PROJECT TRAFFIC VOLUMES

As approved during the City's scoping agreement process (Appendix A), traffic volumes for project completion without project conditions were developed by applying a 2.0 percent annual growth rate to the existing traffic volumes for all the study intersections and adding trips from cumulative projects in the area.

Information concerning cumulative projects in the vicinity of the proposed project was obtained from the City of Moreno Valley Economic Development website. Figure 6-1 illustrates the cumulative project locations.

The trip generation for cumulative projects was developed using rates from the ITE *Trip Generation Manual* (10th Edition), and from traffic studies of cumulative projects. Table 6-A lists the cumulative projects included in this analysis and shows the cumulative projects are expected to generate 1,184 a.m. peak hour trips, 1,604 p.m. peak hour trips, and 20,032 daily trips.

Project trips for these cumulative projects were assigned to the roadway network based on their locations in relation to surrounding land uses and regional arterials. Figure 6-2 illustrates the total peak hour cumulative project trip assignment at study area intersections. Figure 6-3 illustrates the peak hour traffic volumes at study intersections under project completion without project conditions. Table 6-B summarizes the project completion roadway segment daily traffic volumes.

6.2 PROJECT COMPLETION (2022) WITH PROJECT TRAFFIC VOLUMES

As noted in Section 4.2, the project will add a raised median along Perris Boulevard extending north of the intersection of Perris Boulevard/Atwood Avenue. The raised median will prohibit eastbound and westbound left-turn and through movements at the intersection. These trips have been rerouted accordingly under the project completion with project scenario.

Project completion with project traffic volumes were developed by adding project traffic to the readjusted traffic volumes under the project completion without project scenario.

Figure 6-4 illustrates "with project" peak hour traffic volumes at study intersections under project completion conditions. Table 6-B summarizes the "with project" roadway segment daily traffic volumes under project completion conditions.

Detailed volume development worksheets are included in Appendix C.

6.3 PROJECT COMPLETION (2022) WITHOUT PROJECT LEVELS OF SERVICE

6.3.1 Study Intersections

An intersection LOS analysis was conducted for project completion without project conditions using the methodologies previously discussed. Table 6-C summarizes the results of this analysis and shows that the following intersection is forecast to operate at an unsatisfactory LOS:

- Perris Boulevard/Atwood Avenue (both a.m. and p.m. peak hours).

All other study intersections are forecast to operate at a satisfactory LOS.

6.3.2 Roadway Segments

A roadway segment LOS analysis was conducted for project completion without project conditions using the methodologies previously discussed. Table 6-D summarizes the results of this analysis and shows that the following roadway segments are forecast to operate at an unsatisfactory LOS:

- Perris Boulevard between Eucalyptus Avenue and Atwood Avenue;
- Perris Boulevard between Atwood Avenue and Dracaea Avenue; and
- Perris Boulevard between Dracaea Avenue and Cottonwood Avenue.

Only the segment of Dracaea Avenue between Perris Boulevard and Birchwood Drive is forecast to operate at a satisfactory LOS.

6.4 PROJECT COMPLETION (2022) WITH PROJECT LEVELS OF SERVICE

6.4.1 Study Intersections

An intersection LOS analysis was conducted for project completion with project conditions using the methodologies previously discussed. Table 6-C summarizes the results of this analysis and shows that all study intersections are forecast to operate at a satisfactory LOS.

6.4.2 Roadway Segments

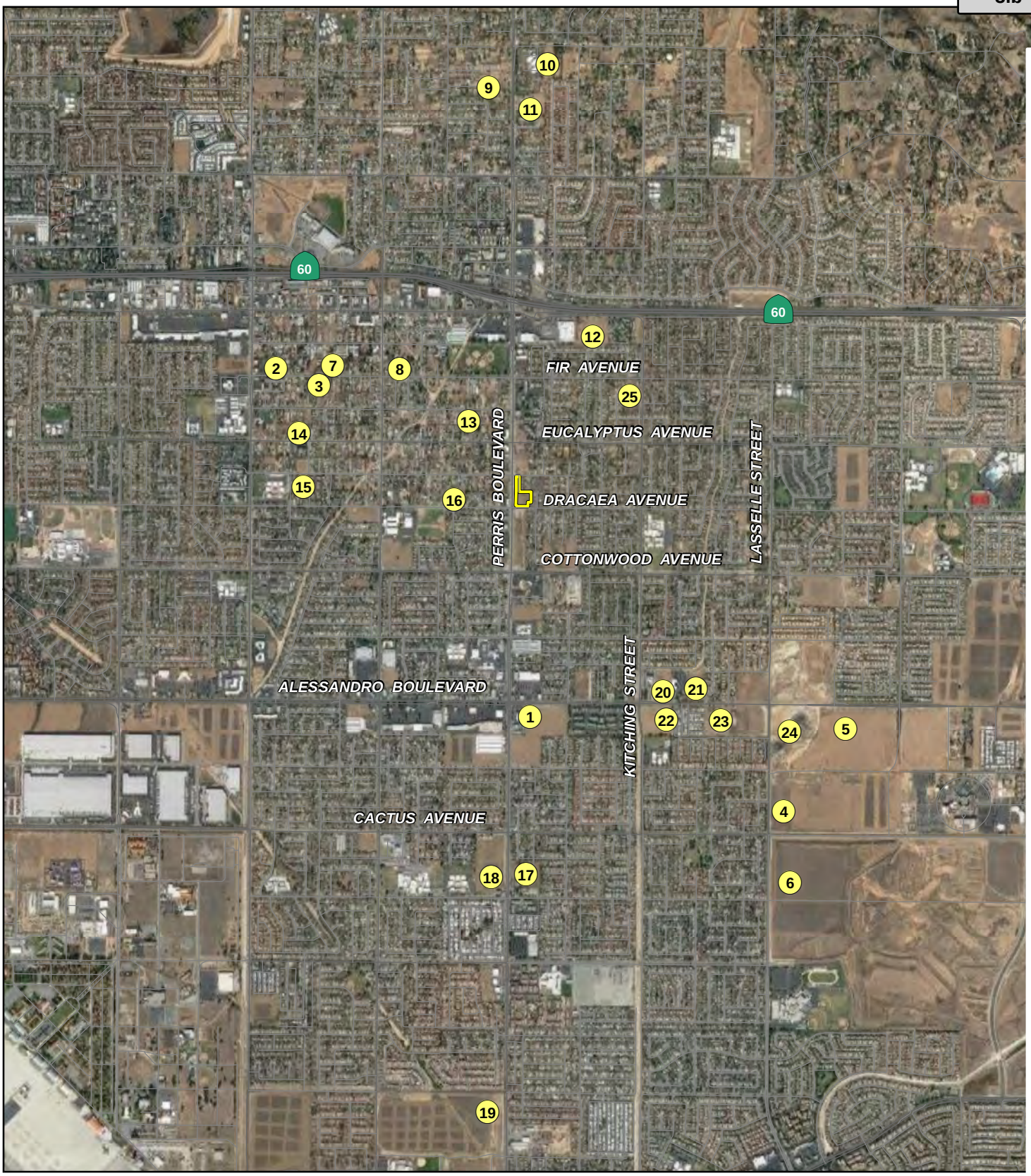
A roadway segment LOS analysis was conducted for project completion with project conditions using the methodologies previously discussed. Table 6-D summarizes the results of this analysis and shows that the following roadway segments are forecast to operate at an unsatisfactory LOS:

- Perris Boulevard between Eucalyptus Avenue and Atwood Avenue;
- Perris Boulevard between Atwood Avenue and Dracaea Avenue; and
- Perris Boulevard between Dracaea Avenue and Cottonwood Avenue.

These segments are forecast to operate at an unsatisfactory LOS even under project completion without project conditions. However, as shown in Table 6-D, the project increases the V/C ratio by less than 0.05 at these segments. Therefore, pursuant to the City's TIA guidelines, improvements are not required for any of these segments. The segment of Dracaea Avenue between Perris Boulevard and Birchwood Drive is forecast to operate at a satisfactory LOS.

6.5 LIST OF CHAPTER 6.0 FIGURES AND TABLES

- Figure 6-1: Cumulative Project Locations
- Figure 6-2: Cumulative Projects Trip Assignment
- Figure 6-3: Project Completion (2022) without Project Peak Hour Traffic Volumes



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LEGEND

Project Site

Cumulative Project

N

0 1375 2750

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FIGURE 6-1

Perris/Dracaea Commercial Projec
Transportation Impact Analys

Cumulative Project Locations

SOURCE: ESRI Streetmap, 2013; Google Earth, 2018.

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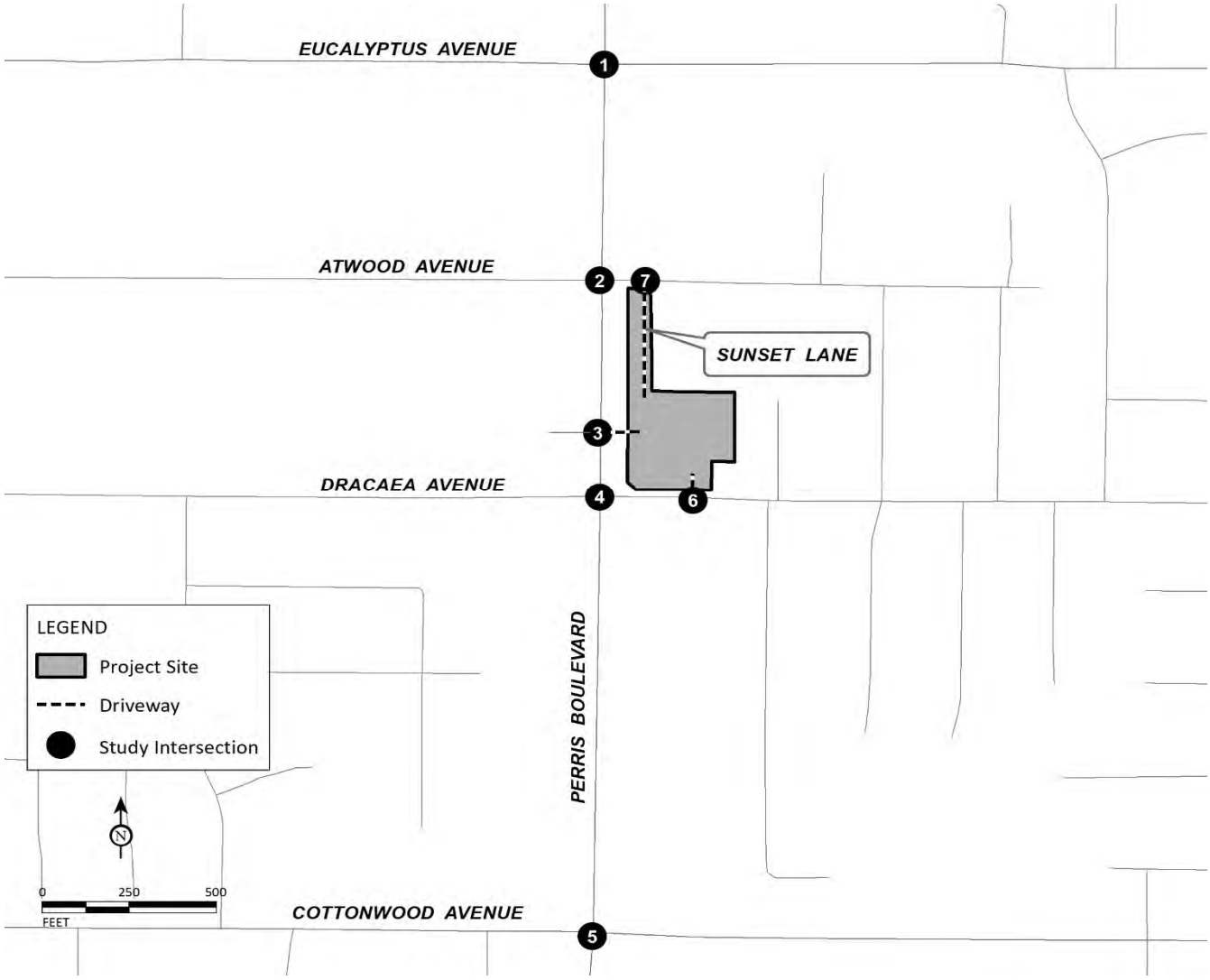

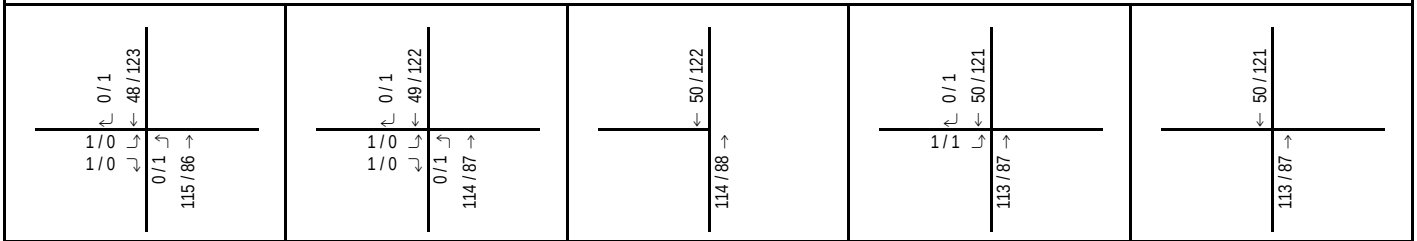

1 Perris Boulevard/Eucalyptus Avenue	2 Perris Boulevard/Atwood Avenue	3 Perris Boulevard/Auto Center Driveway - Project Driveway 1	4 Perris Boulevard/Dracaea Avenue	5 Perris Boulevard/Cottonwood Avenue

Intersection Does Not Exist	
6 Project Driveway 2/Dracaea Avenue	7 Sunset Lane/Atwood Avenue

FIGURE 6-2

LSA

XXX / YYY

AM / PM Peak Hour Traffic Volumes

Perris/Dracaea Commercial Project
Transportation Impact Analysis

Cumulative Projects Trip Assignment

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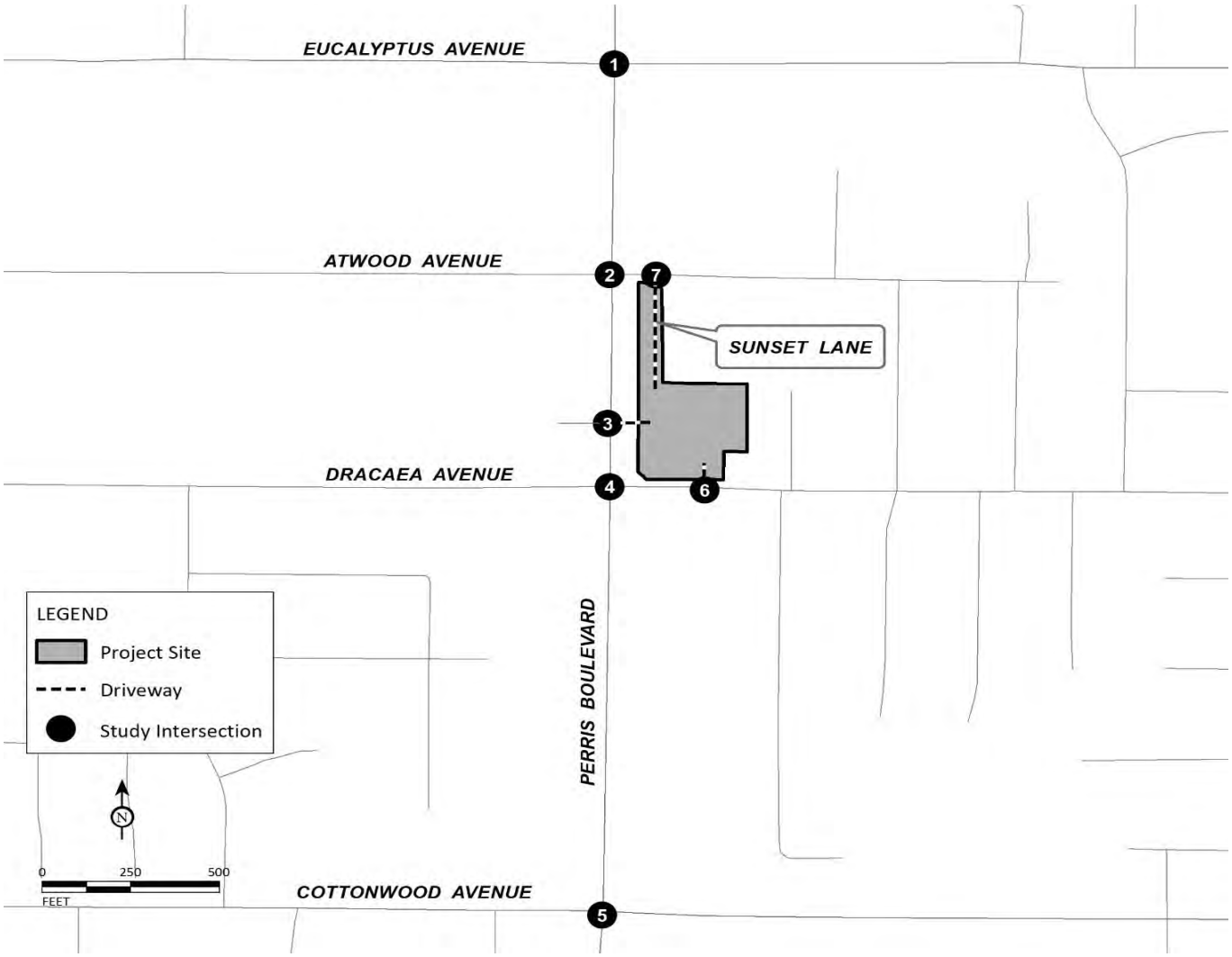

34 / 49 ↲ 1114 / 1250 ↓ 76 / 103 ↳ 24 / 54 ↱ 206 / 114 ↑ 77 / 200 → 230 / 135 ← 60 / 84 ↳ 88 / 55 ↰ 53 / 55 ↰ 1177 / 1123 ↑ 61 / 63 ↱	17 / 17 ↲ 1252 / 1309 ↓ 17 / 45 ↳ 15 / 29 ↱ 10 / 14 ↑ 1 / 1 → 2 / 1 ← 40 / 38 ↳ 4 / 3 ↰ 55 / 47 ↰ 1245 / 1210 ↑ 3 / 1 ↱	7 / 2 ↲ 1276 / 1342 ↓ 1 / 0 ↳ → 1319 / 1259 ↑	91 / 73 ↲ 1151 / 1219 ↓ 35 / 50 ↳ 69 / 74 ↱ 71 / 50 ↑ 75 / 108 → 102 / 77 ← 55 / 23 ↳ 74 / 34 ↰ 53 / 31 ↰ 1179 / 1134 ↑ 21 / 38 ↱	116 / 88 ↲ 1036 / 1143 ↓ 139 / 104 ↳ 92 / 98 ↱ 169 / 92 ↑ 237 / 209 → 293 / 142 ← 57 / 80 ↳ 65 / 24 ↰ 63 / 68 ↰ 1035 / 1074 ↑ 52 / 33 ↱
1 Perris Boulevard/Eucalyptus Avenue	2 Perris Boulevard/Atwood Avenue	3 Perris Boulevard/Auto Center Driveway - Project Driveway 1	4 Perris Boulevard/Dracaea Avenue	5 Perris Boulevard/Cottonwood Avenue

Intersection Does Not Exist	← 14 / 17 20 / 45 → ↰ 1 / 2 ↳ 2 / 1			
6 Project Driveway 2/Dracaea Avenue	7 Sunset Lane/Atwood Avenue			

FIGURE 6-3

LSA

XXXX / YYYY

AM / PM Peak Hour PCE Volumes

Perris/Dracaea Commercial Project
Transportation Impact Analysis

Project Completion (2022) without Project Peak Hour Traffic Volumes

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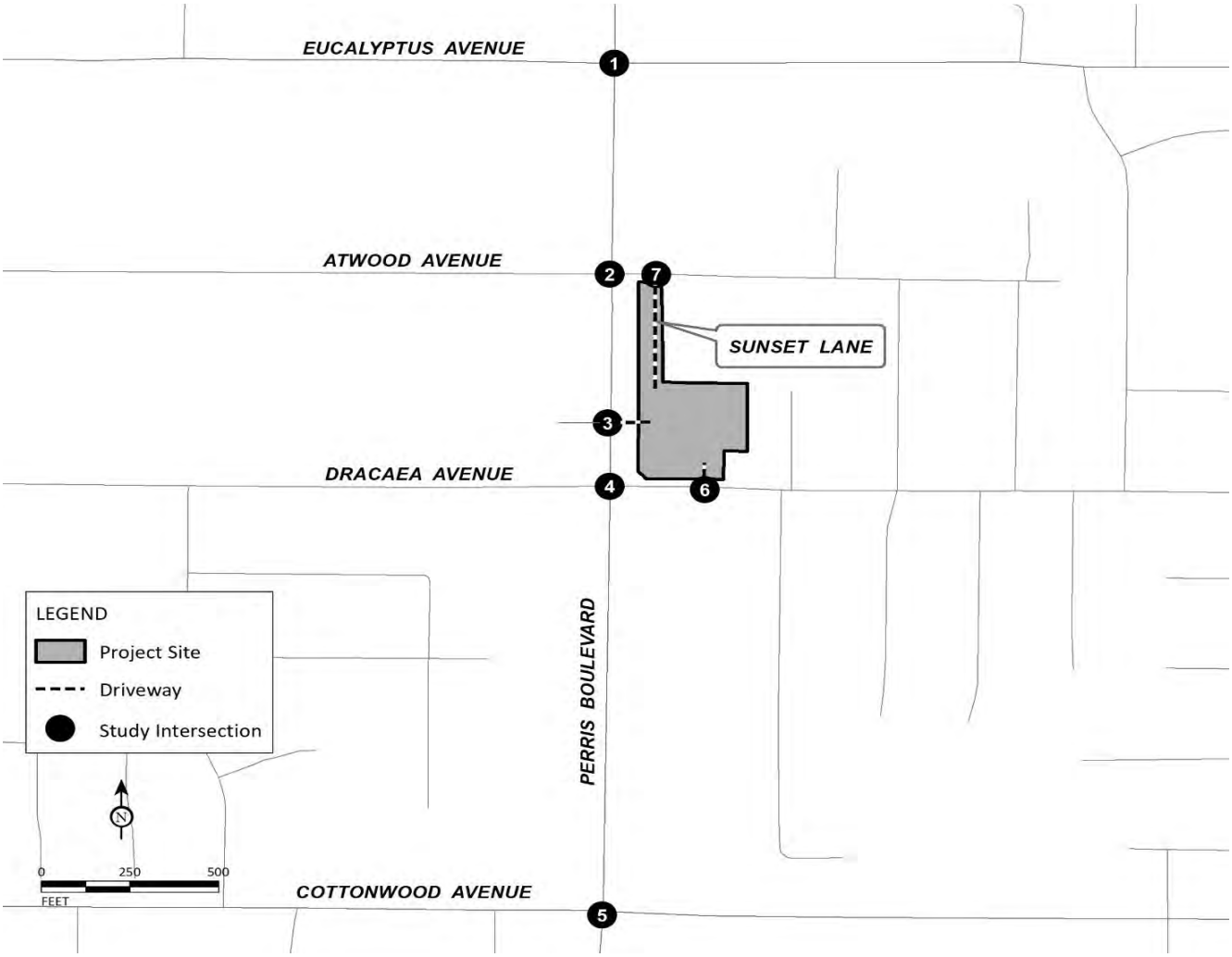

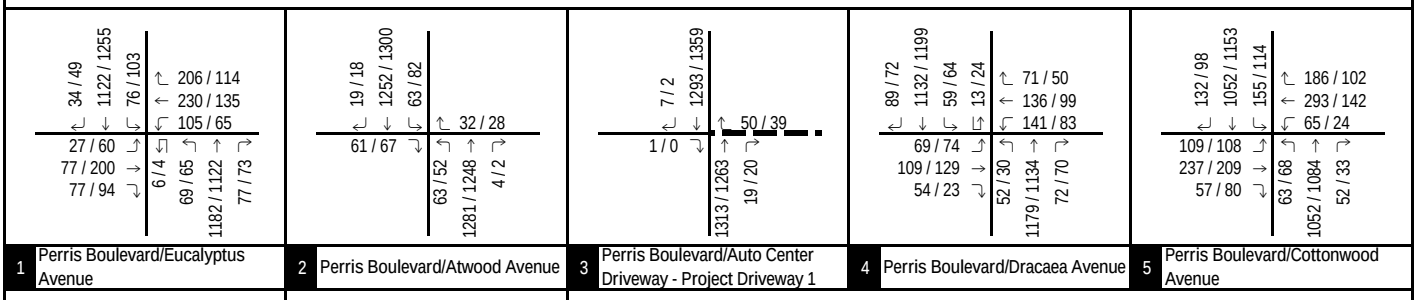

FIGURE 6-4

LSA

XXXX / YYYY
AM / PM Peak Hour PCE Volumes
Project Driveway

Perris/Dracaea Commercial Project
Transportation Impact Analysis

Project Completion (2022) with Project Peak Hour Traffic Volumes

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Table 6-A - Cumulative Projects Trip Generation

Project	Units	A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Daily
1. PEN16-0039 - LactoSC Inc.	272 DU							
Trips/Unit[1]		0.11	0.35	0.46	0.35	0.21	0.56	7.32
Trip Generation		30	95	125	95	57	152	1,991
2. Tract 33771 - Jian Qiang Liu	12 DU							
Trips/Unit[1]		0.11	0.35	0.46	0.35	0.21	0.56	7.32
Trip Generation		1	4	5	4	3	7	88
3. PEN 16-0066 - Cal Choice Inv. Invc	20 DU							
Trips/Unit[1]		0.11	0.35	0.46	0.35	0.21	0.56	7.32
Trip Generation		2	7	9	7	4	11	146
4. PA 15-0046 - LA Jolla Development/Rocas Grandes	426 DU							
Trips/Unit[1]		0.11	0.35	0.46	0.35	0.21	0.56	7.32
Trip Generation		47	149	196	149	89	238	3,118
5. PA 13-0006 - Rancho Belago Developers, Inc.	141 DU							
Trips/Unit[1]		0.11	0.35	0.46	0.35	0.21	0.56	7.32
Trip Generation		16	49	65	49	30	79	1,032
6. PEN 16 - MV Bella Vista GP, LLC	220 DU							
Trips/Unit[1]		0.11	0.35	0.46	0.35	0.21	0.56	7.32
Trip Generation		24	77	101	77	46	123	1,610
7. Tract 35663 - Jimmy Lee	12 DU							
Trips/Unit[1]		0.11	0.35	0.46	0.35	0.21	0.56	7.32
Trip Generation		1	4	5	4	3	7	88
8. PEN 16-0060 - Frederick Homes	24 DU							
Trips/Unit[1]		0.11	0.35	0.46	0.35	0.21	0.56	7.32
Trip Generation		3	8	11	8	5	13	176
9. Tract 31621 - Victoria Homes "Skyline"	12 DU							
Trips/Unit[2]		0.19	0.55	0.74	0.62	0.37	0.99	9.44
Trip Generation		2	7	9	7	4	11	113
10. Tract 35606 - Metric Homes	16 DU							
Trips/Unit[2]		0.19	0.55	0.74	0.62	0.37	0.99	9.44
Trip Generation		3	9	12	10	6	16	151
11. Tract 31297 - Randy McFarland	7 DU							
Trips/Unit[2]		0.19	0.55	0.74	0.62	0.37	0.99	9.44
Trip Generation		1	4	5	4	3	7	66
12. Tract 31814 - Jessee Huizar	60 DU							
Trips/Unit[1]		0.11	0.35	0.46	0.35	0.21	0.56	7.32
Trip Generation		7	21	28	21	13	34	439
13. Tract 35369 - Tason Myer Property	12 DU							
Trips/Unit[1]		0.11	0.35	0.46	0.35	0.21	0.56	7.32
Trip Generation		1	4	5	4	3	7	88
14. Tract 35769 - Michael Chen	16 DU							
Trips/Unit[1]		0.11	0.35	0.46	0.35	0.21	0.56	7.32
Trip Generation		2	6	8	6	3	9	117
15. PA 09-0006 - Jim Nydam	15 DU							
Trips/Unit[1]		0.11	0.35	0.46	0.35	0.21	0.56	7.32
Trip Generation		2	5	7	5	3	8	110

Table 6-A - Cumulative Projects Trip Generation

Project	Units	A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Daily
16. Tract 35304 - Jimmy Lee	12 DU							
Trips/Unit[1]		0.11	0.35	0.46	0.35	0.21	0.56	7.32
Trip Generation		1	4	5	4	3	7	88
17. Mo Ghiassi TL Group	52 DU							
Trips/Unit[1]		0.11	0.35	0.46	0.35	0.21	0.56	7.32
Trip Generation		6	18	24	18	11	29	381
18. Tract 36708 - Nova Homes	122 DU							
Trips/Unit[1]		0.11	0.35	0.46	0.35	0.21	0.56	7.32
Trip Generation		13	43	56	43	26	69	893
19. Wal-Mart	193.00 TSF							
Trips/Unit[4]		1.04	0.81	1.85	2.12	2.21	4.33	50.70
Trip Generation		201	156	357	409	427	836	9,785
Pass-by Trips		0	0	0	(119)	(124)	(243)	(2,838)
Net Trip Generation		201	156	357	290	303	593	6,947
20. Tract 34216 - Creative Design Assoc.	39 DU							
Trips/Unit[1]		0.11	0.35	0.46	0.35	0.21	0.56	7.32
Trip Generation		4	14	18	14	8	22	285
21. Tract 35429 - Creative Design Assoc.	58 DU							
Trips/Unit[1]		0.11	0.35	0.46	0.35	0.21	0.56	7.32
Trip Generation		6	20	26	20	12	32	425
22. Tract 35304 - Jimmy Lee	24 DU							
Trips/Unit[1]		0.11	0.35	0.46	0.35	0.21	0.56	7.32
Trip Generation		3	8	11	8	5	13	176
23. Tract 34681 - Perris Pacific Company	49 DU							
Trips/Unit[1]		0.11	0.35	0.46	0.35	0.21	0.56	7.32
Trip Generation		5	17	22	17	10	27	359
24. PEN17 - 0064 Boulder Ridge	141 DU							
Trips/Unit[1]		0.11	0.35	0.46	0.35	0.21	0.56	7.32
Trip Generation		16	49	65	49	30	79	1,032
25. Tract 34043 - RM3 Building and Development	12 DU							
Trips/Unit[2]		0.19	0.55	0.74	0.62	0.37	0.99	9.44
Trip Generation		2	7	9	7	4	11	113
Total Net Trip Generation		**399**	**785**	**1,184**	**920**	**684**	**1,604**	**20,032**

Notes:

DU=Dwelling Units; TSF= Thousand Square Feet

[1] Rates based on the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (10th Edition) for Land Use 220 – "Multifamily Housing (Low-Rise)", Setting/Location - "General Urban/Suburban."

[2] Rates based on the ITE *Trip Generation Manual* (10th Edition) for Land Use 210 – "Single-Family Detached Housing", Setting/Location - "General Urban/Suburban."

[2] Rates based on the ITE *Trip Generation Manual* (10th Edition) for Land Use 813 – "Free-Standing Discount Superstore", Setting/Location - "General Urban/Suburban."

[4] Pass-by rates obtained from the ITE *Trip Generation Handbook* (3rd Edition). A.m. peak hour and daily pass-by rates are not provided in the ITE Handbook. Hence, no reduction has been considered for the a.m. peak hour and the p.m. peak hour rate has been used as the daily rate.

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Table 6-B - Project Completion (2022) Roadway Segment Daily Traffic Volumes

Roadway	#	Segment	Existing (2019) ADT	2019 - 2022 Growth	Cumulative Projects Trips	Proj Comp (2022) Without Project ADT	Project Trips	Pass-By Trips	Proj Comp (2022) With Project ADT
Perris Boulevard	1	between Eucalyptus Avenue and Atwood Avenue	31,829	1,910	2,708	36,447	870	0	37,317
	2	between Atwood Avenue and Dracaea Avenue	30,997	1,860	2,702	35,559	608	(323)	35,844
	3	between Dracaea Avenue and Cottonwood Avenue	29,577	1,775	2,684	34,036	1,044	0	35,080
Dracaea Avenue	4	between Perris Boulevard and Birchwood Drive	4,912	295	0	5,207	1,996	343	7,546

LSA

Table 6-C - Project Completion (2022) Intersection Levels of Service

Intersection	Jurisdiction	Control	LOS Standard	Without Project				With Project				A.M. Peak Hour Increase in Delay (sec.)	P.M. Peak Hour Increase in Delay (sec.)	Improvements Required[3]
				A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour				
				Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS			
1 . Perris Boulevard/Eucalyptus Avenue	Moreno Valley	Signal	D	22.6	C	29.5	C	23.3	C	30.0	C	0.7	0.5	No
2 . Perris Boulevard/Atwood Avenue[1]	Moreno Valley	TWSC	D	>100	F *	>100	F *	18.0	C	15.9	C	> -100	> -100	No
3 . Perris Boulevard/Auto Center Driveway - Project Driveway 1[2]	Moreno Valley	OWSC/TWSC	D	10.6	B	0.0	A	12.7	B	12.1	B	2.1	12.1	No
4 . Perris Boulevard/Dracaea Avenue	Moreno Valley	Signal	D	35.1	D	7.6	A	36.5	D	8.9	A	1.4	1.3	No
5 . Perris Boulevard/Cottonwood Avenue	Moreno Valley	Signal	D	35.1	D	23.7	C	36.8	D	23.8	C	1.7	0.1	No
6 . Project Driveway 2/Dracaea Avenue	Moreno Valley	OWSC	D	Does not Exist		Does not Exist		12.1	B	10.6	B	-	-	No
7 . Sunset Lane/Atwood Avenue	Moreno Valley	OWSC	D	8.7	A	8.8	A	8.9	A	8.9	A	0.2	0.1	No

Notes:

OWSC = One-Way Stop Control; TWSC = Two-Way Stop Control

Delay = Average control delay in seconds (For OWSC and TWSC intersections, reported delay is for worst-case movement).

* Exceeds LOS Standard

[1] The intersection of Perris Boulevard/Atwood Avenue has high through volumes that block the turn movements throughout the peak hour. As such, Synchro did not report a delay at this intersection for the blocked turn movements. Therefore, the worst-case movements at this intersection operate at LOS F.

[2] This intersection operates as an OWSC intersection under without project conditions. However, under with project conditions, it operates as a TWSC intersection. Under without project conditions, Synchro did not report a delay at this intersection during the p.m. peak hour as there are no conflicting movements.

[3] Improvements required determined based on the criteria included in the City of Moreno Valley Transportation Engineering Division *Transportation Impact Analysis* Preparation Guide, dated June 2020.

LSA

Table 6-D - Project Completion (2022) Roadway Segment Levels of Service

Roadway Segment	Classification[1]	Roadway Capacity[2]	Without Project			With Project			V/C Ratio Difference	Improvements Required[3]
			Daily Volume	V/C Ratio	LOS	Daily Volume	V/C Ratio	LOS		
Segments on Perris Boulevard										
1 . between Eucalyptus Avenue and Atwood Avenue	Four Lane Divided Arterial	37,500	36,500	0.97	E *	37,400	1.00	E *	0.03	No
2 . between Atwood Avenue and Dracaea Avenue	Four Lane Divided Arterial	37,500	35,600	0.95	E *	35,900	0.96	E *	0.01	No
3 . between Dracaea Avenue and Cottonwood Avenue	Four Lane Divided Arterial	37,500	34,100	0.91	E *	35,100	0.94	E *	0.03	No
Segments on Dracaea Avenue										
4 . between Perris Boulevard and Birchwood Drive	Two Lane Undivided Arterial	12,500	5,300	0.42	A	7,600	0.61	B	0.19	No

Notes:

LOS = Level of Service

* Exceeds LOS Standard

[1] Classifications for all segments have been obtained from the City of Moreno Valley Transportation Engineering Division *Transportation Impact Analysis Preparation Guide,* dated June 2020.

[2] Roadway capacities for all segmentshave been obtained from the City of Moreno Valley Transportation Engineering Division *Transaportation Impact Analysis Preparation Guide,* dated June 2020.

[3] Improvements required determined based on the criteria included in the City of Moreno Valley Transportation Engineering Division *Transportation Impact Analysis* Preparation Guide, dated June 2020.

7.0 GENERAL PLAN BUILD-OUT ANALYSIS

7.1 GENERAL PLAN BUILD-OUT (2040) WITHOUT PROJECT TRAFFIC VOLUMES

General Plan build-out conditions traffic volumes were developed using forecast volumes obtained from the Moreno Valley Traffic Model (MVTM) and by applying the National Cooperative Highway Research Program (NCHRP) post-processing methodologies. Figure 7-1 illustrates the peak hour traffic volumes at study intersections under General Plan build-out conditions. Table 7-A summarizes the General Plan build-out roadway segment daily traffic volumes.

Detailed volume development worksheets are included in Appendix C.

7.2 GENERAL PLAN BUILD-OUT (2040) WITH PROJECT TRAFFIC VOLUMES

As noted in Section 4.2, the project will add a raised median along Perris Boulevard extending north of the intersection of Perris Boulevard/Atwood Avenue. The raised median will prohibit eastbound and westbound left-turn and through movements at the intersection. These trips have been rerouted accordingly under the General Plan build-out with project scenario.

Figure 7-2 illustrates "with project" peak hour traffic volumes at study intersections under project completion and General Plan build-out conditions, respectively. Previously referenced Table 7-A summarizes the "with project" roadway segment daily traffic volumes under General Plan build-out conditions.

Detailed volume development worksheets are included in Appendix C.

7.3 GENERAL PLAN BUILD-OUT (2040) WITHOUT PROJECT LEVELS OF SERVICE

7.3.1 Study Intersections

An intersection LOS analysis was conducted for General Plan build-out without project conditions using the methodologies previously discussed. Table 7-B summarizes the results of this analysis and shows that the following intersections are forecast to operate at an unsatisfactory LOS:

- Perris Boulevard/Atwood Avenue (both a.m. and p.m. peak hours); and
- Perris Boulevard/Dracaea Avenue (p.m. peak hour only).

All other study intersections are forecast to operate at a satisfactory LOS.

7.3.2 Roadway Segments

A roadway segment LOS analysis was conducted for General Plan build-out without project conditions using the methodologies previously discussed. Table 7-C summarizes the results of this analysis and shows that the following roadway segments are forecast to operate at an unsatisfactory LOS:

- Perris Boulevard between Eucalyptus Avenue and Atwood Avenue;

- Perris Boulevard between Atwood Avenue and Dracaea Avenue; and
- Perris Boulevard between Dracaea Avenue and Cottonwood Avenue.

Only the segment of Dracaea Avenue between Perris Boulevard and Birchwood Drive is forecast to operate at a satisfactory LOS.

7.4 GENERAL PLAN BUILD-OUT (2040) WITH PROJECT LEVELS OF SERVICE

7.4.1 Study Intersections

An intersection LOS analysis was conducted for General Plan build-out with project conditions using the methodologies previously discussed. Table 7-B summarizes the results of this analysis and shows that the following intersection is forecast to operate at an unsatisfactory LOS:

- Perris Boulevard/Dracaea Avenue (p.m. peak hour only).

This intersection is forecast to operate at an unsatisfactory LOS even under General Plan build-out without project conditions. Additionally, as shown in Table 7-B, the project increases the delay at this intersection by more than 5.0 seconds. Therefore, pursuant to the City's TIA guidelines, the project needs to identify improvements to offset the delay at this intersection.

All other study intersections are forecast to operate at a satisfactory LOS.

7.4.2 Roadway Segments

A roadway segment LOS analysis was conducted for General Plan build-out with project conditions using the methodologies previously discussed. Table 7-C summarizes the results of this analysis and shows that the following roadway segments are forecast to operate at an unsatisfactory LOS:

- Perris Boulevard between Eucalyptus Avenue and Atwood Avenue;
- Perris Boulevard between Atwood Avenue and Dracaea Avenue; and
- Perris Boulevard between Dracaea Avenue and Cottonwood Avenue.

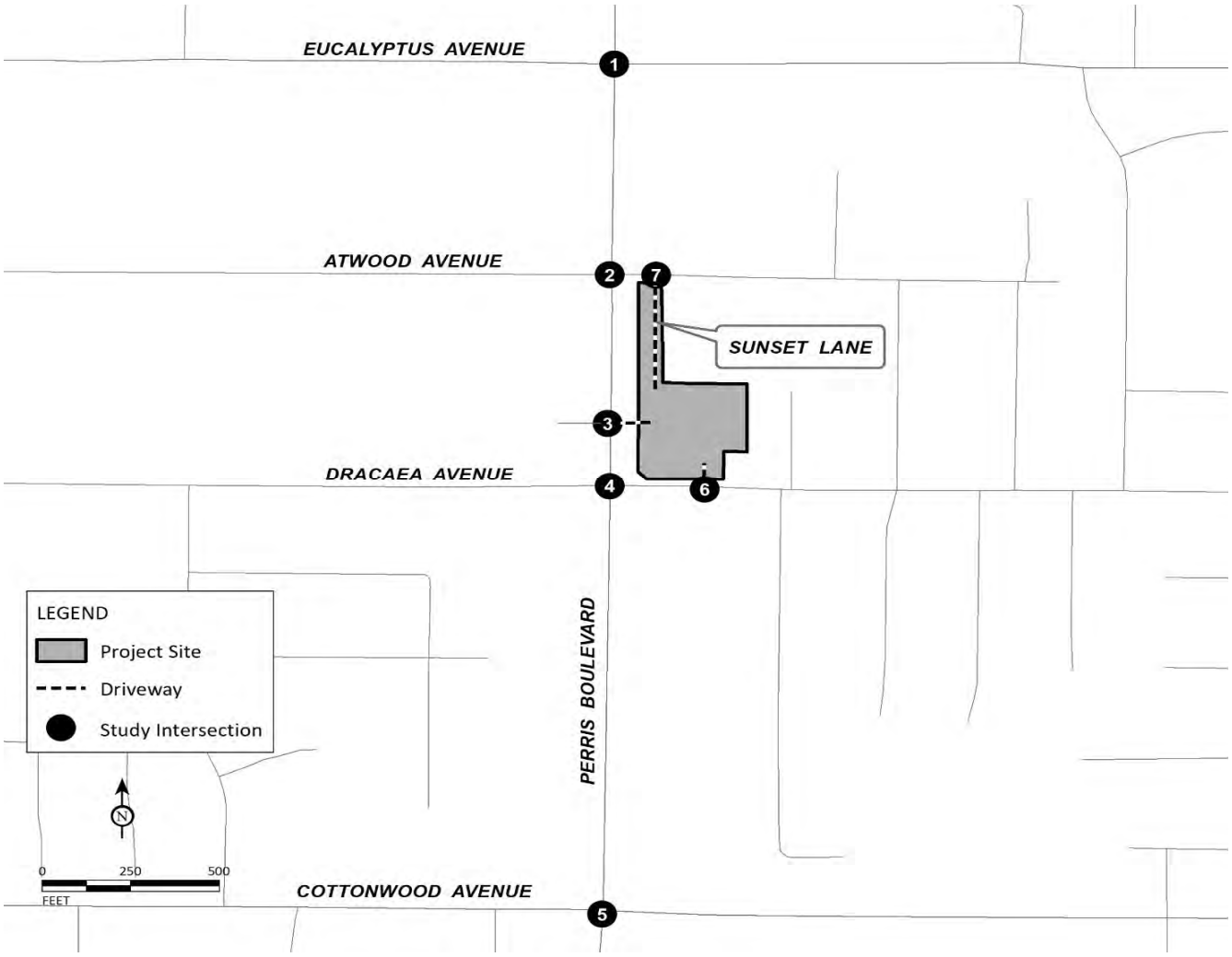
These segments are forecast to operate at an unsatisfactory LOS even under General Plan build-out without project conditions. However, as shown in Table 7-C, the project increases the V/C ratio by less than 0.05 at these segments. Therefore, pursuant to the City's TIA guidelines, improvements are not required for any of these segments. The segment of Dracaea Avenue between Perris Boulevard and Birchwood Drive is forecast to operate at a satisfactory LOS.

Detailed Level of Service Worksheets are included in Appendix D.

7.5 LIST OF CHAPTER 7.0 FIGURES AND TABLES

- Figure 7-1: General Plan Build-out (2040) without Project Peak Hour Traffic Volumes
- Figure 7-2: General Plan Build-out (2040) with Project Peak Hour Traffic Volumes
- Table 7-A: General Plan Build-out (2040) Roadway Segment Daily Traffic Volumes

- Table 7-B: General Plan Build-out (2040) Intersection Levels of Service
- Table 7-C: General Plan Build-out (2040) Roadway Segment Levels of Service



92 / 100 ↲ 1438 / 1490 ↓ 90 / 111 ↳ 58 / 149 ↱ 216 / 140 ↑ 170 / 516 → 401 / 301 ← 150 / 265 ↲ 92 / 78 ↰ 129 / 147 ↰ 1274 / 1551 ↑ 65 / 88 ↱	18 / 18 ↲ 1654 / 1776 ↓ 56 / 153 ↳ 16 / 30 ↱ 59 / 58 ↑ 3 / 3 → 11 / 4 ← 43 / 51 ↲ 50 / 40 ↰ 61 / 74 ↰ 1445 / 1855 ↑ 19 / 12 ↱	7 / 2 ↲ 1747 / 1867 ↓ 1 / 0 ↲ 1525 / 1941 ↑	177 / 118 ↲ 1527 / 1679 ↓ 43 / 70 ↳ 92 / 258 ↱ 91 / 72 ↑ 79 / 344 → 147 / 118 ← 60 / 81 ↲ 77 / 48 ↰ 75 / 50 ↰ 1342 / 1611 ↑ 22 / 53 ↱	139 / 126 ↲ 1383 / 1567 ↓ 162 / 165 ↳ 97 / 190 ↱ 172 / 173 ↑ 239 / 374 → 349 / 221 ← 69 / 137 ↲ 90 / 41 ↰ 96 / 80 ↰ 1213 / 1408 ↑ 78 / 43 ↱
1 Perris Boulevard/Eucalyptus Avenue	2 Perris Boulevard/Atwood Avenue	3 Perris Boulevard/Auto Center Driveway - Project Driveway 1	4 Perris Boulevard/Dracaea Avenue	5 Perris Boulevard/Cottonwood Avenue
Intersection Does Not Exist	← 119 / 101 76 / 165 → ↱ 1 / 2 ↲ 2 / 1			
6 Project Driveway 2/Dracaea Avenue	7 Sunset Lane/Atwood Avenue			

FIGURE 7-1

LSA

XXXX / YYYY

AM / PM Peak Hour PCE Volumes

Perris/Dracaea Commercial Project
Transportation Impact Analysis

General Plan Build-out (2040) without Project Peak Hour Traffic Volumes

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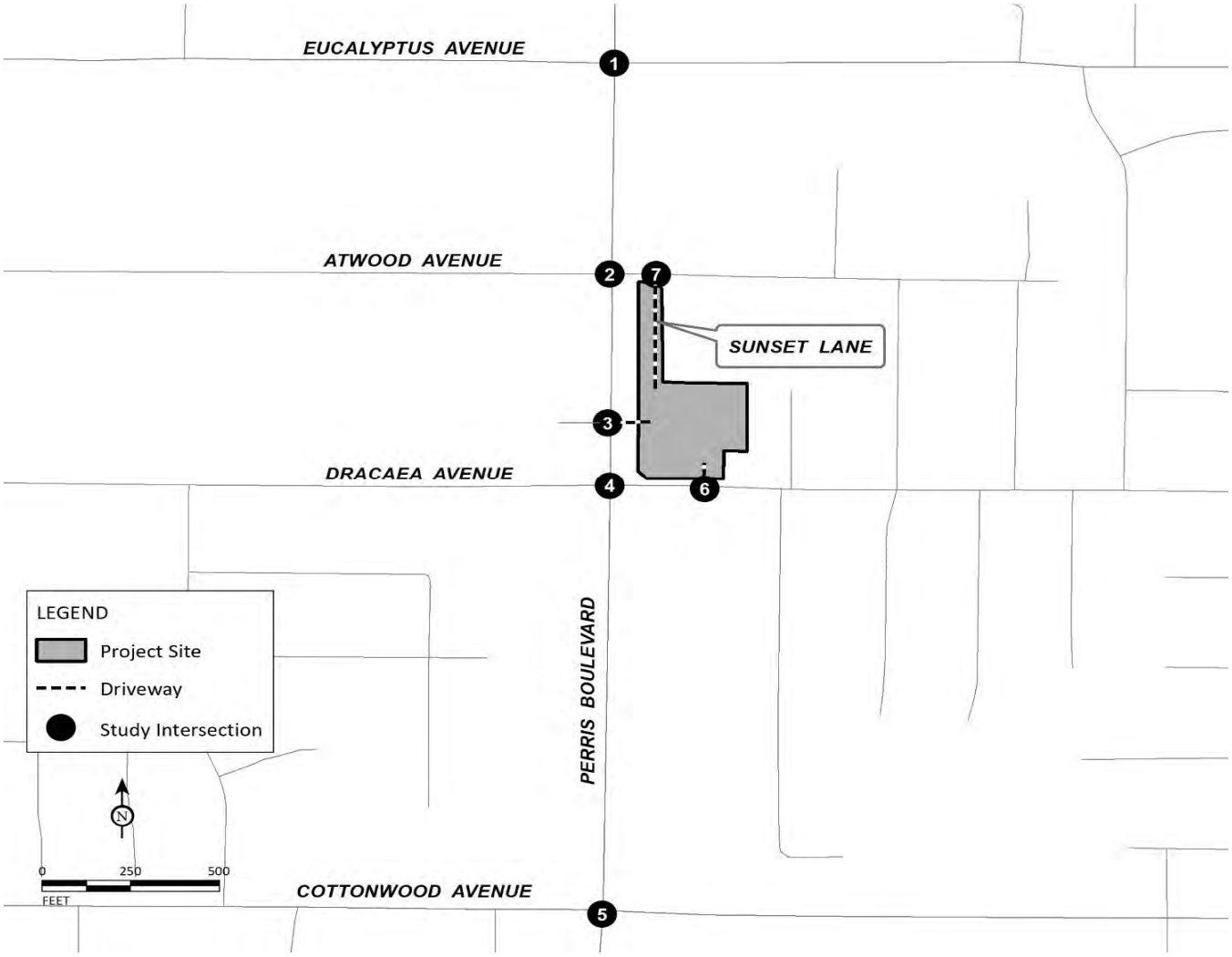

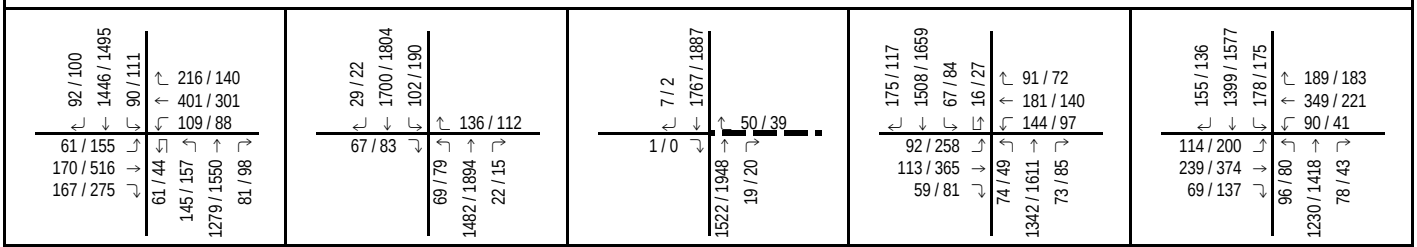

FIGURE 7-2

LSA

XXXX / YYYY
AM / PM Peak Hour PCE Volumes
Project Driveway

Perris/Dracaea Commercial Project
Transportation Impact Analysis

General Plan Build-out (2040) with Project Peak Hour Traffic Volumes

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LSA

Table 7-A - General Plan Build-out (2040) Roadway Segment Daily Traffic Volumes

Roadway	#	Segment	General Plan Build-out (2040) Without Project ADT	Net Project Trips	Pass-by Trips	General Plan Build-out (2040) With Project ADT
Perris Boulevard	1	between Eucalyptus Avenue and Atwood Avenue	45,861	870	0	46,731
	2	between Atwood Avenue and Dracaea Avenue	46,776	608	(323)	47,061
	3	between Dracaea Avenue and Cottonwood Avenue	42,959	1,044	0	44,003
Dracaea Avenue	4	between Perris Boulevard and Birchwood Drive	6,735	1,996	343	9,074

LSA

Table 7-B - General Plan Build-out (2040) Intersection Levels of Service

Intersection	Jurisdiction	Control	LOS Standard	Without Project				With Project				A.M. Peak Hour	P.M. Peak Hour	Improvements Required[3]
				A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour		Increase in Delay (sec.)	Increase in Delay (sec.)	
				Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS			
1 . Perris Boulevard/Eucalyptus Avenue	Moreno Valley	Signal	D	30.4	C	53.4	D	31.8	C	54.6	D	1.4	1.2	No
2 . Perris Boulevard/Atwood Avenue[1]	Moreno Valley	TWSC	D	>100	F *	-	F *	20.9	C	32.4	D	> -100	> -100	No
3 . Perris Boulevard/Auto Center Driveway - Project Driveway 1[2]	Moreno Valley	OWSC/TWSC	D	19.7	C	0.0	A	14.0	B	21.1	C	-5.7	21.1	No
4 . Perris Boulevard/Dracaea Avenue	Moreno Valley	Signal	D	35.2	D	94.7	F *	46.1	D	>100	F *	10.9	18.4	**Yes**
5 . Perris Boulevard/Cottonwood Avenue	Moreno Valley	Signal	D	38.2	D	48.1	D	39.4	D	49.4	D	1.2	1.3	No
6 . Project Driveway 2/Dracaea Avenue	Moreno Valley	OWSC	D	Does not Exist		Does not Exist		13.1	B	12.5	B	-	-	No
7 . Sunset Lane/Atwood Avenue	Moreno Valley	OWSC	D	9.5	A	10.0	A	9.8	A	10.2	B	0.3	0.2	No

Notes:

OWSC = One-Way Stop Control; TWSC = Two-Way Stop Control

Delay = Average control delay in seconds (For OWSC and TWSC intersections, reported delay is for worst-case movement).

* Exceeds LOS Standard

[1] The intersection of Perris Boulevard/Atwood Avenue has high through volumes that block the turn movements throughout the peak hour. As such, Synchro did not report a delay at this intersection for the blocked turn movements. Therefore, the worst-case movements at this intersection operate at LOS F.

[2] This intersection operates as an OWSC intersection under without project conditions. However, under with project conditions, it operates as a TWSC intersection. Under without project conditions, Synchro did not report a delay at this intersection during the p.m. peak hour as there are no conflicting movements.

[3] Improvements required determined based on the criteria included in the City of Moreno Valley Transportation Engineering Division *Transportation Impact Analysis* Preparation Guide, dated June 2020.

LSA

Table 7-C - General Plan Build-Out (2040) Roadway Segment Levels of Service

Roadway Segment	Classification[1]	Roadway Capacity[2]	Without Project			With Project			V/C Ratio Difference	Improvements Required[3]
			Daily Volume	V/C Ratio	LOS	Daily Volume	V/C Ratio	LOS		
Segments on Perris Boulevard										
1 . between Eucalyptus Avenue and Atwood Avenue	Four Lane Divided Arterial	37,500	45,900	1.22	F *	46,800	1.25	F *	0.03	No
2 . between Atwood Avenue and Dracaea Avenue	Four Lane Divided Arterial	37,500	46,800	1.25	F *	47,100	1.26	F *	0.01	No
3 . between Dracaea Avenue and Cottonwood Avenue	Four Lane Divided Arterial	37,500	43,000	1.15	F *	44,100	1.18	F *	0.03	No
Segments on Dracaea Avenue										
4 . between Perris Boulevard and Birchwood Drive	Two Lane Undivided Arterial	12,500	6,800	0.54	A	9,100	0.73	C	0.19	No

Notes:

LOS = Level of Service

* Exceeds LOS Standard

[1] Classifications for all segments have been obtained from the City of Moreno Valley Transportation Engineering Division *Transportation Impact Analysis Preparation Guide,* dated June 2020.

[2] Roadway capacities for all segmentshave been obtained from the City of Moreno Valley Transportation Engineering Division *Transaportation Impact Analysis Preparation Guide,* dated June 2020.

[3] Improvements required determined based on the criteria included in the City of Moreno Valley Transportation Engineering Division *Transportation Impact Analysis* Preparation Guide, dated June 2020.

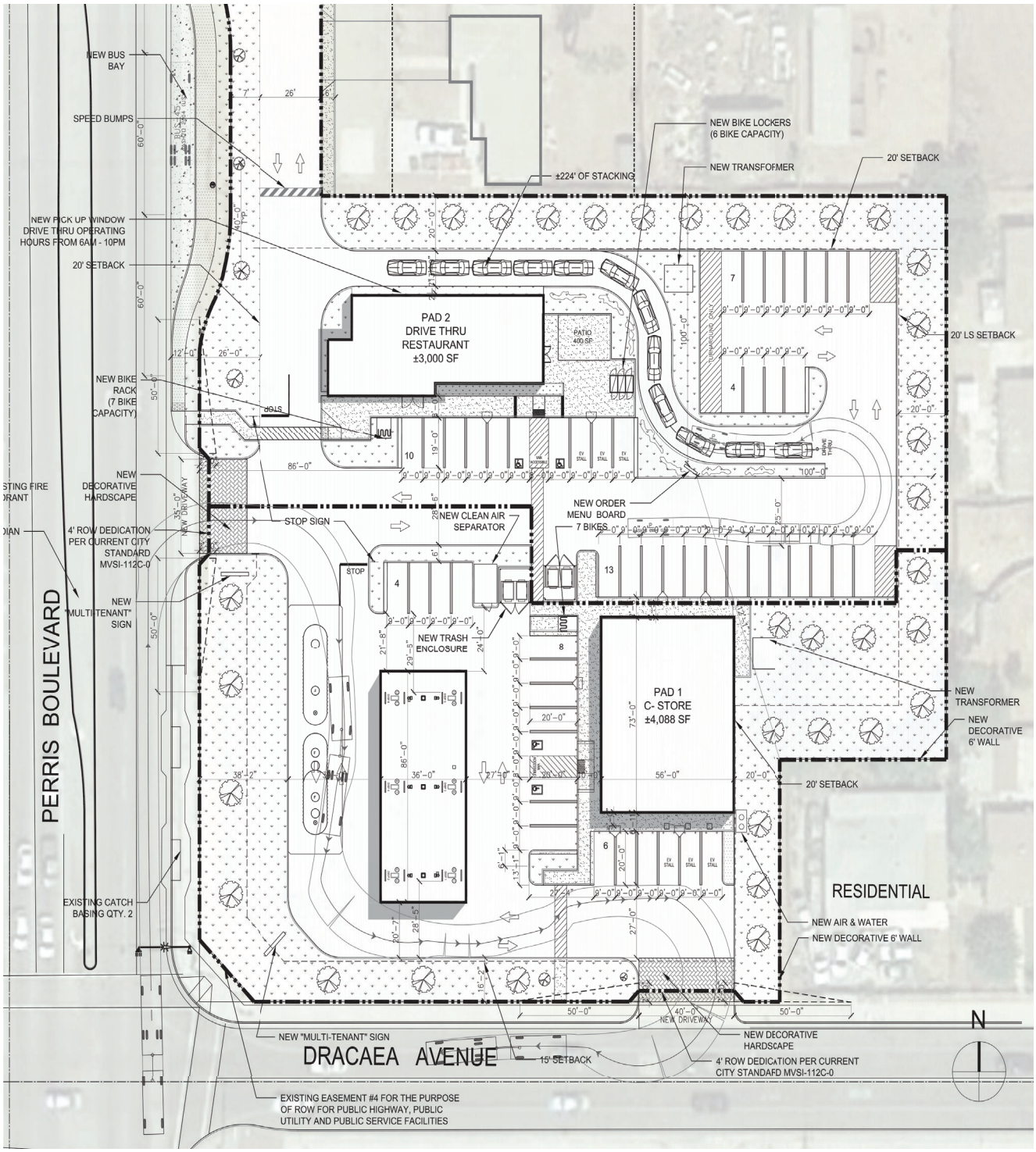
8.0 SITE ACCESS ANALYSIS

The City has requested evaluation of circulation issues for the commercial center with respect to fuel tanker-trucks. Truck turning templates were obtained from the Caltrans Design Manual Turn Templates. As a conservative estimate, large semitrailer templates were used to evaluate availability of adequate truck turning radii.

Fuel tanker-trucks will not interfere with the drive-through operations for any of the facilities or the overall site circulation.

Since discharging fuel for the gas station will occur during the off-peak hours for the gas station, there will be no circulation issues for fuel tanker-trucks. Ingress and egress movements as well as internal circulation for fuel tanker-trucks are illustrated in Figure 8-1. For the truck turning figures, the large Interstate Semitrailer templates have been used as a conservative approach. As illustrated in the Figure 8-1, the trucks will have adequate turning radii to ingress using the project driveway on Perris Boulevard and egress using the project driveway on Atwood Avenue. Additionally, adequate space is available on site for fuel tanker-trucks to park during fuel discharge operations. Previously referenced Figure 4-3 illustrates the project design features.

8.1 LIST OF CHAPTER 8.0 FIGURES



LSA

FIGURE 8-1

0 200 400
FEET

SOURCE:Cadence Capital Investments, LLC.

I:\CAQ1901\Reports\Traffic\fig8-1_Truck_Turning.ai (09/01/2020)

Perris/Dracaea Commercial Project
Transportation Impact Analysis

(WB-50) Truck Turning Template

9.0 QUEUING ANALYSIS

Tables 9-A, 9-B, and 9-C list the available turn-pocket storage lengths and summarize the 95th percentile back-of-queue lengths at the study intersections under existing, project completion, and General Plan build-out conditions. Pursuant to discussions with City staff, queues have only been reported for those turn movements where the project adds to the traffic volumes. The queues for the signalized intersections have been reported from Synchro, while for unsignalized intersections, the SimTraffic queues have been reported since Synchro does not appropriately report queues at unsignalized intersections. Recommended improvements based on queuing analysis results have been included in Section 11.1.

Detailed queuing worksheets are included in Appendix E.

9.1 LIST OF CHAPTER 9.0 TABLES

- Table 9-A: Existing Queuing Analysis
- Table 9-B: Project Completion (2022) Queuing Analysis
- Table 9-C: General Plan Build-out (2040) Queuing Analysis

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Table 9-A - Existing Queuing Analysis

Intersection	Movement	Storage Length[2] (ft/ln)	Without Project[3] AM	Without Project[3] PM
1. Perris Boulevard/Eucalyptus Avenue Signal	**NBL** **NBR** **EBR** **WBL**	95 95 50 100	45 5 0 85	60 25 10 75
2. Perris Boulevard/Atwood Avenue TWSC	**NBL** **SBL**	50 50	50 35	**55** 50
3. Perris Boulevard/Auto Center Driveway - Project Driveway 1 OWSC[1]	**WBR**	150	0	0
4. Perris Boulevard/Dracaea Avenue Signal	**SBL**	95	40	65
5. Perris Boulevard/Cottonwood Avenue Signal	**SBL** **SBR** **EBL** **WBR**	95 200 115 355	**190** 30 110 40	**145** 35 105 0
6. Project Driveway 2/Dracaea Avenue Signal	**SBLR**	130	-	-
7. Sunset Lane/Atwood Avenue OWSC	**NBLR**	300	20	15

Notes:

ft/ln = feet per lane

OWSC = One-Way Stop Control; TWSC = Two-Way Stop Control

EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound

L = Left; T = Through; R = Right

Bold = Queue exceeds available storage.

1 This intersection operates as a OWSC intersection under without project conditions. However, under with project conditions, it operates as a TWSC intersection.

2 Storage length for all other movements have been obtained from Google Earth measurements.

3 All queues reported are 95th percentile queues. Queues for signalized intersections have been reported from Synchro, while queues for unsignalized intersections have been reported from SimTraffic.

LSA

Table 9-B - Project Completion (2022) Queuing Analysis

Intersection	Movement	Storage Length[2] (ft/ln)	Without Project[3]		With Project[3]	
			AM	PM	AM	PM
1. Perris Boulevard/Eucalyptus Avenue Signal	**NBL** **NBR** **EBR** **WBL**	95 95 50 100	40 5 0 90	60 25 15 80	**105** 5 0 **105**	**165** 25 20 95
2. Perris Boulevard/Atwood Avenue TWSC	**NBL**[4] **SBL**[5]	50/150 50/125	50 25	50 **55**	55 50	50 70
3. Perris Boulevard/Auto Center Driveway - Project Driveway 1 OWSC/TWSC[1]	**WBR**	150	0	0	45	50
4. Perris Boulevard/Dracaea Avenue Signal	**SBL**[6]	95/100	40	60	60	85
5. Perris Boulevard/Cottonwood Avenue Signal	**SBL** **SBR** **EBL** **WBR**	95 200 115 355	**165** 0 95 40	**160** 30 110 0	**155** 20 **145** 45	**175** 30 **120** 0
6. Project Driveway 2/Dracaea Avenue Signal	**SBLR**	130	-	-	75	55
7. Sunset Lane/Atwood Avenue OWSC	**NBLR**	300	20	20	40	40

Notes:

ft/ln = feet per lane

OWSC = One-Way Stop Control; TWSC = Two-Way Stop Control

EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound

L = Left; T = Through; R = Right

Bold = Queue exceeds available storage.

[1] This intersection operates as a OWSC intersection under without project conditions. However, under with project conditions, it operates as a TWSC intersection.

[2] Storage length for all other movements have been obtained from Google Earth measurements.

[3] All queues reported are 95th percentile queues. Queues for signalized intersections have been reported from Synchro, while queues for unsignalized intersections have been reported from SimTraffic.

[4] Under without project condition, the left turn pocket has a storage length of 50 feet, with the implementation of the project, the storage length is increased to 150 feet.

[5] Under without project condition, the left turn pocket has a storage length of 50 feet, with the implementation of the project, the storage length is increased to 125 feet.

[6] Under without project condition, the left turn pocket has a storage length of 95 feet, with the implementation of the project, the storage length is increased to 100 feet.

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Table 9-C - General Plan Build-out (2040) Queuing Analysis

Intersection	Movement	Storage Length[2] (ft/ln)	Without Project[3] AM	Without Project[3] PM	With Project[3] AM	With Project[3] PM
1. Perris Boulevard/Eucalyptus Avenue Signal	**NBL**	95	**120**	**100**	**265**	**280**
	NBR	95	5	15	5	15
	EBR	50	35	**145**	45	**155**
	WBL	100	95	**115**	**125**	**135**
2. Perris Boulevard/Atwood Avenue TWSC	**NBL**[4]	50/150	**80**	**100**	150	145
	SBL[5]	50/125	**85**	**115**	85	125
3. Perris Boulevard/Auto Center Driveway - Project Driveway 1 OWSC/TWSC[1]	**WBR**	150	0	0	60	65
4. Perris Boulevard/Dracaea Avenue Signal	**SBL**[6]	95/100	30	65	50	100
5. Perris Boulevard/Cottonwood Avenue Signal	**SBL**	95	**145**	**155**	**135**	**165**
	SBR	200	25	20	25	20
	EBL	115	115	**180**	**140**	**185**
	WBR	355	45	50	45	60
6. Project Driveway 2/Dracaea Avenue Signal	**SBLR**	130	-	-	100	115
7. Sunset Lane/Atwood Avenue OWSC	**NBLR**	300	45	0	80	45

Notes:

ft/ln = feet per lane

OWSC = One-Way Stop Control; TWSC = Two-Way Stop Control

EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound

L = Left; T = Through; R = Right

Bold = Queue exceeds available storage.

[1] This intersection operates as a OWSC intersection under without project conditions. However, under with project conditions, it operates as a TWSC intersection.

[2] Storage length for all other movements have been obtained from Google Earth measurements.

[3] All queues reported are 95th percentile queues. Queues for signalized intersections have been reported from Synchro, while queues for unsignalized intersections have been reported from SimTraffic.

[4] Under without project condition, the left turn pocket has a storage length of 50 feet, with the implementation of the project, the storage length is increased to 150 feet.

[5] Under without project condition, the left turn pocket has a storage length of 50 feet, with the implementation of the project, the storage length is increased to 125 feet.

[6] Under without project condition, the left turn pocket has a storage length of 95 feet, with the implementation of the project, the storage length is increased to 100 feet.

10.0 ACTIVE TRANSPORTATION AND PUBLIC TRANSIT ANALYSIS

According to the City's TIA guidelines, a significant impact occurs when a project conflicts with adopted plans, policies, or programs regarding bicycle, public transit, or pedestrian facilities, or otherwise decreases the performance or safety of such facilities.

At present, bike lanes do not exist along Perris Boulevard or Dracaea Avenue within the study area. However, a bicycle boulevard has been proposed along Dracaea Avenue between Elsworth Street and Nason Street in the City's Bicycle Master Plan. The project will not decrease the performance or the safety of nearby bicycle facilities.

According to the City of Moreno Valley Master Plan of Trails, there are no existing or proposed trail facilities in the vicinity of the project. The project will not decrease the performance of nearby pedestrian facilities.

The RTA Route 19 is the only bus route through the study area. The project is installing a bus stop for this route along the project frontage. There is no other proposed transit route in the study area. Therefore, the project will not decrease the service level of public transit near the project.

The project does not conflict with existing and proposed bicycle, pedestrian, and transit facilities. Therefore, it can be considered as conforming to all adopted plan, policies, and programs concerning these facilities and will not have a significant impact.

11.0 IMPROVEMENTS AND RECOMMENDATIONS

11.1 RECOMMENDED IMPROVEMENTS

Based on the results of the LOS and queuing analysis, improvements have been recommended at study area intersections. Figure 11-1 illustrates the General Plan build-out with project with improvements study intersection geometrics and traffic control. Previously referenced Figure 4-3 illustrates the striping plan for the proposed improvements along the project frontage. Table 11-A illustrates the post-improvement intersection levels of service under General Plan build-out conditions. As shown in Table 11-A, with the implementation of the proposed improvements, all study intersections are forecast to operate at a satisfactory LOS under all scenarios.

As shown in previously referenced Table 7-B, the intersection of Perris Boulevard/Dracaea Avenue is forecast to operate at an unsatisfactory LOS under build-out without project condition. An eastbound left-turn lane with a storage length of 100 ft and a westbound left-turn lane with a storage length of 135 ft will be required at this intersection as part of intersection LOS and queuing improvements. The project will be required to pay its fair share for the improvement.

As shown in previously referenced Tables 9-B, and 9-C, queues for some of movements affected by project traffic are projected to exceed the existing available turn-pocket storage lengths under project completion and General Plan build-out without and with project conditions. Table 11-B summarizes recommended improvements at these locations and the project fair share corresponding to these improvements. With the implementation of the improvements summarized in Table 11-B, the queuing issue can be resolved for all scenarios.

11.2 FUNDING SOURCES AND MECHANISMS

Where there is a funding mechanism (fee program) for the recommended improvements, payment into the fee program would be considered sufficient. At study locations where the addition of project traffic is solely responsible for the operational deficiency and there is no funding mechanism in place, the project will be responsible for the implementation of the improvements. For all other improvements, the project is responsible for its fair-share payment. Funding mechanisms for the proposed improvements at study intersections have been listed in Table 11-B.

11.2.1 Transportation Uniform Mitigation Fee (TUMF) Program

The underlying purpose of the TUMF program is “the need to establish a comprehensive funding source to mitigate the cumulative regional transportation impacts of new development on regional arterial highways.” As new development occurs in western Riverside County, the cumulative transportation impacts of this new development are reflected in increased demand for transportation infrastructure leading to decreased levels of service, increased delay and increased congestion on regional transportation facilities, and an overall decline in regional mobility. Therefore, the need to invest in additional transportation infrastructure to meet the increased travel demand and to sustain pre-development traffic conditions to “keep traffic flowing” represents the fundamental premise of the TUMF program.

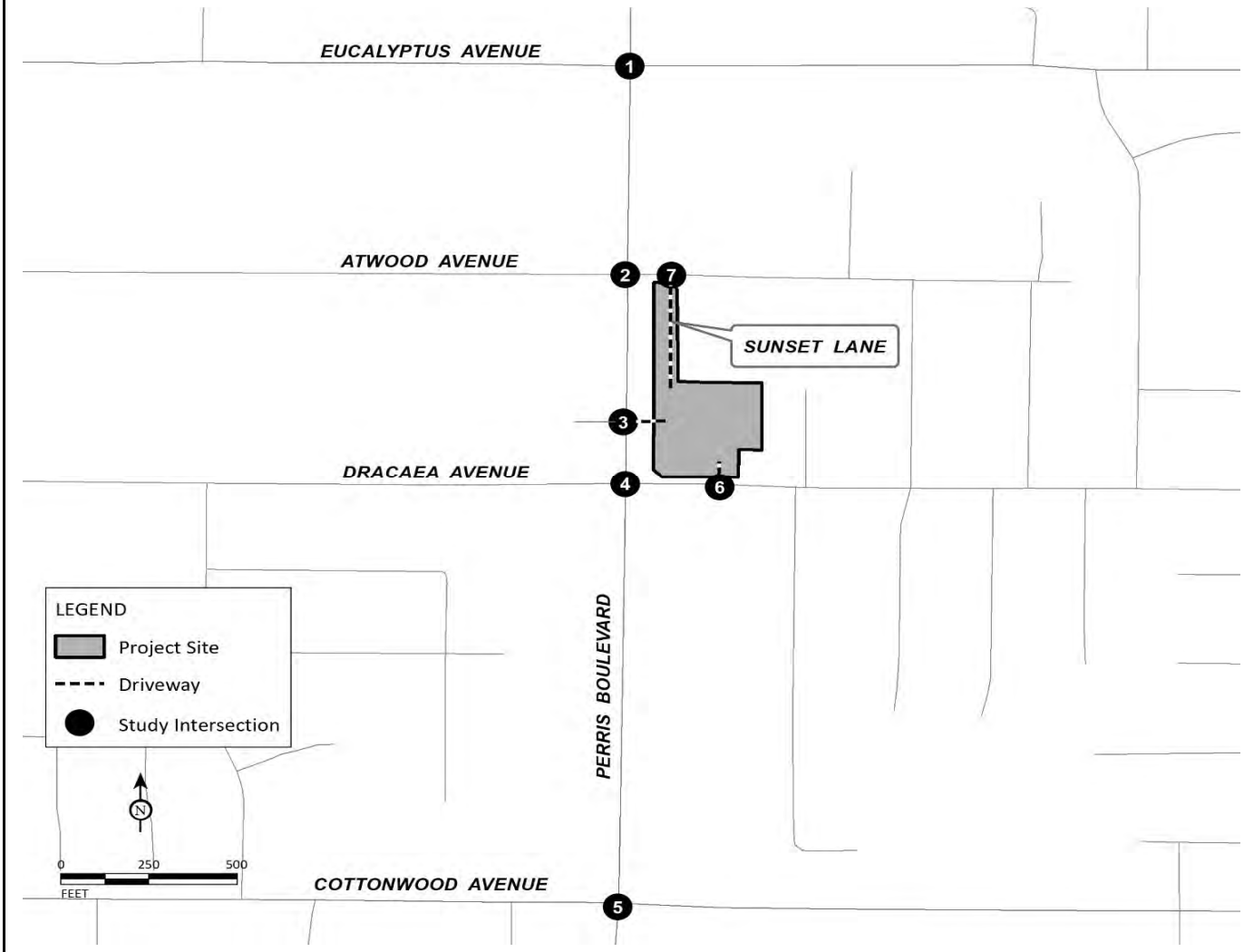
11.2.2 Project Fair Share

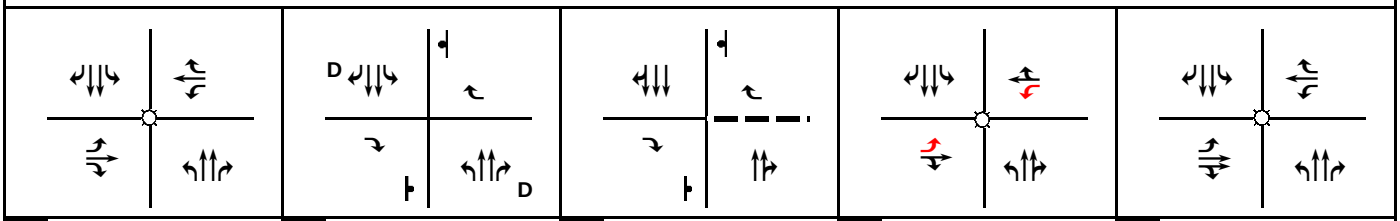
In the absence of a fee program, where an improvement has been recommended on the roadway network, the project shall pay its fair share of the cost required for the improvement. The project's fair share has been calculated based on project traffic as a percentage of total growth from existing to General Plan build-out conditions.

Table 11-B summarizes the project fair share corresponding to the improvements recommended and the funding programs in place that covers recommended improvements for study intersections.

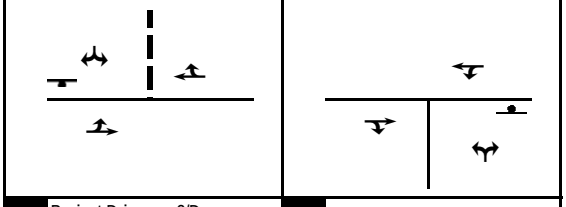
11.3 LIST OF CHAPTER 11.0 FIGURES AND TABLES

- Figure 11-1: General Plan Build-out with Project with Improvements Study Intersection Geometrics and Traffic Control
- Table 11-A: General Plan Build-out (2040) with Project with Improvements Intersection Levels of Service
- Table 11-B: Recommended Improvements for Intersections and Funding Mechanism





1 Perris Boulevard/Eucalyptus Avenue	2 Perris Boulevard/Atwood Avenue	3 Perris Boulevard/Auto Center Driveway - Project Driveway 1	4 Perris Boulevard/Dracaea Avenue	5 Perris Boulevard/Cottonwood Avenue



6 Project Driveway 2/Dracaea Avenue	7 Sunset Lane/Atwood Avenue

FIGURE 11-1

LSA

Legend

Signal
Stop Sign
Project Driveway

D De Facto Right Turn
Recommended Improvement

Perris/Dracaea Commercial Project
Transportation Impact Analysis

General Plan Build-out with Project with Improvements Study Intersection Geometrics and Traffic Control

R:\CAQ1901\Traffic\August 2020\g30_Geo_BO_MIT_P.xlsx\Figure (9/2/2020)

LSA

Table 11-A - General Plan Build-out (2040) with Project with Improvements Intersection Levels of Service

Intersection	Jurisdiction	LOS Standard	With Project Without Improvements						With Project With Improvements				
			Control	A.M. Peak Hour Delay (sec.)	A.M. Peak Hour LOS	P.M. Peak Hour Delay (sec.)	P.M. Peak Hour LOS		Control	A.M. Peak Hour Delay (sec.)	A.M. Peak Hour LOS	P.M. Peak Hour Delay (sec.)	P.M. Peak Hour LOS
4 . Perris Boulevard/Dracaea Avenue	Moreno Valley	Signal	D	46.1	D	>100	F	*	Signal	26.4	C	32.1	C

Notes:

TWSC = Two-Way Stop Control

Delay = Average control delay in seconds

LOS = Level of Service

* Exceeds LOS Standard

LSA

Table 11-B - Recommended Improvements for Intersections and Funding Mechanism

Intersection	Project Completion (2022) with Project Improvements	General Plan Build-Out (2040) with Project Improvements	Funding Mechanism	Improvements Covered by TUMF	Improvements Covered by Fair Share	Fair Share Percentage
1 . Perris Boulevard/Eucalyptus Avenue	Extend storage length for NBL turn lane from 95 feet to 280 feet, Extend storage length for WBL turn lane from 100 feet to 135 feet.	Project Completion Improvements + Extend EBR turn lane from 50 feet to 155 feet.	Fair Share		Extend storage length for NBL turn lane from 95 feet to 280 feet, Extend EBR turn lane from 50 feet to 155 feet, Extend storage length for WBL turn lane from 100 feet to 135 feet.	5.89%
4 . Perris Boulevard/Dracaea Avenue	-	Add a EBL turn lane with storage length of 100 feet, Add a WBL turn lane with storage length of 135 feet.	Fair Share		Add a EBL turn lane with storage length of 100 feet, Add a WBL turn lane with storage length of 135 feet.	14.86%
5 . Perris Boulevard/Cottonwood Avenue	Extend storage length for SBL turn lane from 95 feet to 190 feet, Extend storage length for EBL turn lane from 115 feet to 185 feet.	Project Completion Improvements	Fair Share		Extend storage length for SBL turn lane from 95 feet to 190 feet, Extend storage length for EBL turn lane from 115 feet to 185 feet.	8.41%

Notes:

EB = Eastbound, WB = Westbound

L = Left

TUMF refers to the Transportation Uniform Mitigation Fee program.

Project Fair Share Percentage is the highest fair share value of the AM and PM peak hour when both peak hours are impacted by the project, or only in the peak hour where the project has an impact.

12.0 VEHICLE MILES TRAVELED ANALYSIS

On December 28, 2018, the California Office of Administrative Law cleared the revised *CEQA Guidelines* for use. Among the changes to the guidelines was removal of vehicle delay and level of service from consideration under CEQA. With the adopted guidelines, transportation impacts are to be evaluated based on a project's effect on VMT. Lead agencies are allowed to opt-in to the revised transportation guidelines, but the new guidelines must be used starting July 1, 2020.

The City recently adopted its VMT analysis guidelines. Pursuant to the City's VMT analysis guidelines, retail less than 50,000 sf, which serve the local community and have the potential to reduce VMT, are exempted from a VMT assessment. It is anticipated that this type of small retail facility will serve all the residential units in the vicinity and provide them with the convenience of availing certain amenities close to home. Residents will no longer have to travel long distances to avail such amenities. Therefore, trip lengths will be shortened and vehicle travel will be reduced. This project has a much lower square footage (7,088 sf for all uses combined) compared to the 50,000-square foot threshold. Therefore, the project can be considered as a local serving retail and will not have a significant VMT impact.

APPENDIX A:

SCOPING AGREEMENT

EXHIBIT A

Project Scoping Form

This scoping form shall be submitted to the Lead Agency to assist in identifying infrastructure improvements that may be required to support traffic from the proposed project.

Approved 8/26/20

Project Identification:

Case Number:	PPA18-0018
Related Cases:	
SP No.	
EIR No.	
GPA No.	
CZ No.	
Project Name:	Perris/Dracaea Commercial Project
Project Address:	Northeast Corner of Perris Boulevard and Dracaea Avenue, Moreno Valley, CA 92555
Project Opening Year:	2024
Project Description:	Gasoline Station with Convenience Store and Coffee Shop with Drive-Through Window

	Consultant:	Developer:
Name:	LSA Associates, Inc.	Cadence Acquisition LLC
Address:	1500 Iowa Avenue, Suite 200 Riverside, CA 92507	6400 S. Fiddlers Green Circle, St. 1820, Greenwood Village, CO 80111
Telephone:	951-781-9310	720-493-5100
Email:		

Trip Generation Information:

Trip Generation Data Source: Institute of Transportation Engineers (ITE) *Trip Generation Manual* (10th Edition)

Current General Plan Land Use: Residential/Office

Proposed General Plan Land Use: Commercial

Current Zoning: Office

Proposed Zoning: Commercial

	Existing Trip Generation			Proposed Trip Generation		
	In	Out	Total	In	Out	Total
AM Trips				165	159	324
PM Trips				103	101	204

Trip Internalization: ☐ Yes ☒ No (_____% Trip Discount)

Pass-By Allowance: ☒ Yes ☐ No (62(AM)/56(PM)% Trip Discount)

Potential Screening Checks

Is your project screened from specific analyses (see Page 3 of the guidelines related to LOS assessment and Pages 22-23 for VMT screening criteria).

Is the project screened from LOS assessment? ☐ Yes ☒ No

LOS screening justification (see Page 3 of the guidelines): _____

Is the project screened from VMT assessment? [X] Yes [ ] No

VMT screening justification (see Pages 22-23 of the guidelines): Local serving retail project less than 50,000 square feet.

Level of Service Scoping

- Proposed Trip Distribution (Attach Graphic for Detailed Distribution):

North	South	East	West
30 %	30 %	20%	20 %

Link level of service and data collection:

_X_ will be required

____ will not be required

- Attach list of study intersections (and roadway segments if applicable)
- Attach site plan
- Other specific items to be addressed:
  - Site access
  - On-site circulation
  - Parking
  - Consistency with Plans supporting Bikes/Peds/Transit
  - Other Queuing Analaysis
- Date of Traffic Counts 05/23/2019
- Attach proposed analysis scenarios (years plus proposed forecasting approach)
- Attach proposed phasing approach (if the project is phased)

VMT Scoping

For projects that are not screened, identify the following:

- Travel Demand Forecasting Model Used _____
- Attach WRCOG Screening VMT Assessment output or describe why it is not appropriate for use
- Attach proposed Model Land Use Inputs and Assumed Conversion Factors (attach)

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Analysis Scenarios

The TIA will be prepared to satisfy the requirements established by the City's TIA Guidelines, as well as the requirements for the disclosure of potential impacts and mitigation measures pursuant to the California Environmental Quality Act (CEQA). Since the proposed project will require a GPA, based on the TIA Guidelines, an analysis of General Plan Build-out conditions is required for the project. Therefore, the TIA will address existing traffic conditions, future traffic forecasts, project-related impacts, and mitigations under the following scenarios:

1. Existing (2019) Conditions;
2. Project Completion (2022) without Project Conditions*;
3. Project Completion (2022) with Project Conditions;
4. General Plan Build-out (2040) without Project Conditions; and
5. General Plan Build-out (2040) with Project Conditions.

*Project completion year should have a minimum two (2) year horizon as per the City's TIA guidelines.

Study Area Intersections

Based on the City's TIA Guidelines, the TIA is required to analyze all intersections of Collector or higher classification streets where the project will contribute 50 or more peak hour trips, not exceeding a 5-mile radius from the project site. As such, an operational analysis of the following intersections is proposed during the a.m. and p.m. peak hours.

1. Perris Boulevard/Eucalyptus Avenue;
2. Perris Boulevard/Atwood Avenue;
3. Perris Boulevard/Auto Center Driveway - Project Driveway 1;
4. Perris Boulevard/Dracaea Avenue;
5. Perris Boulevard/Cottonwood Avenue;
6. Project Driveway 2/Dracaea Avenue; and
7. Sunset Lane/Atwood Avenue.

All study intersections will be analyzed during the a.m. and p.m. peak hours. For all intersections, the *Highway Capacity Manual 6* (HCM 6) analysis methodologies will be used to determine intersection levels of service. Intersection LOS will be calculated using Synchro 10 software, which uses the HCM 6 methodologies.

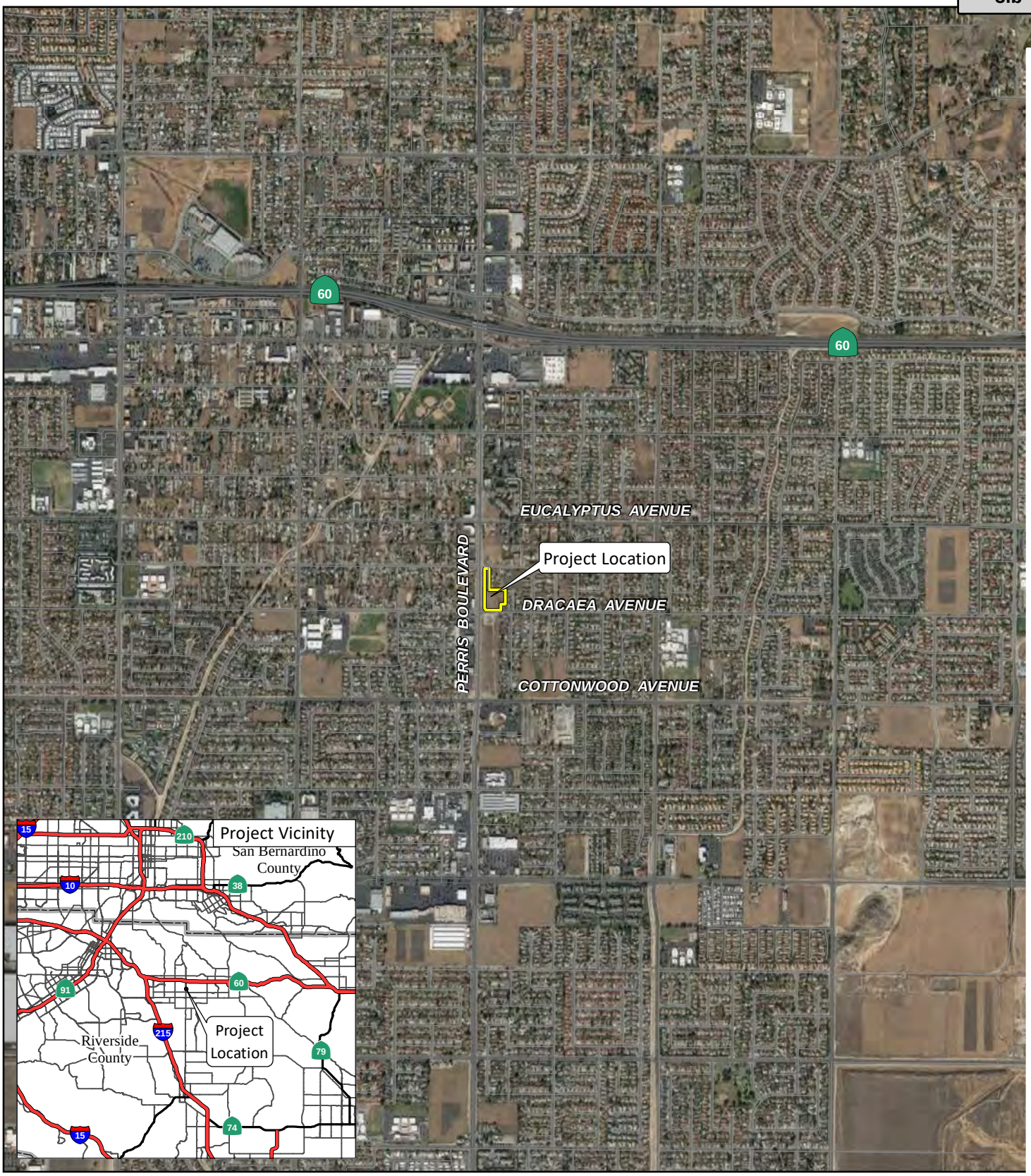
Roadway Segments

All roadway segments adjacent to intersection analysis locations will be analyzed.

LSA proposes to include the following roadway segments:

LSA

1. Perris Boulevard, between Eucalyptus Avenue and Atwood Avenue;
2. Perris Boulevard, between Atwood Avenue and Dracaea Avenue;
3. Perris Boulevard, between Dracaea Avenue and Cottonwood Avenue; and
4. Dracaea Avenue, between Perris Boulevard and Birchwood Drive.



LSA

FIGURE 1

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0 1000 2000
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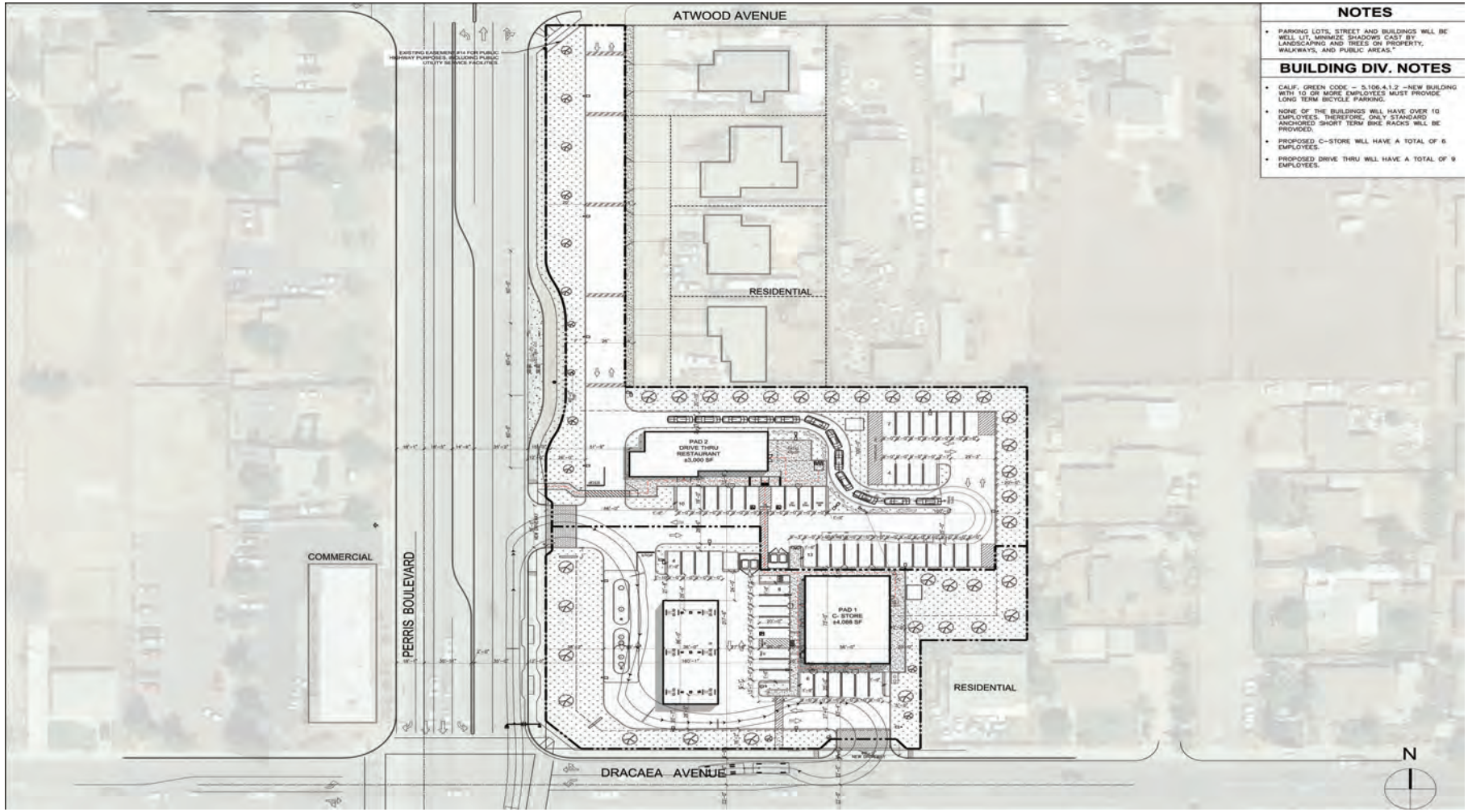
Perris/Dracaea Commercial Projec
Traffic Impact Analysi

Regional and Project Location

SOURCE: ESRI Streetmap, 2013; Google Earthl, 2018.

I:\CAQ1901\Reports\Traffic\fig1-1_RegLoc.mxd (7/19/2019)



LSA

FIGURE 2

N

0 60 120

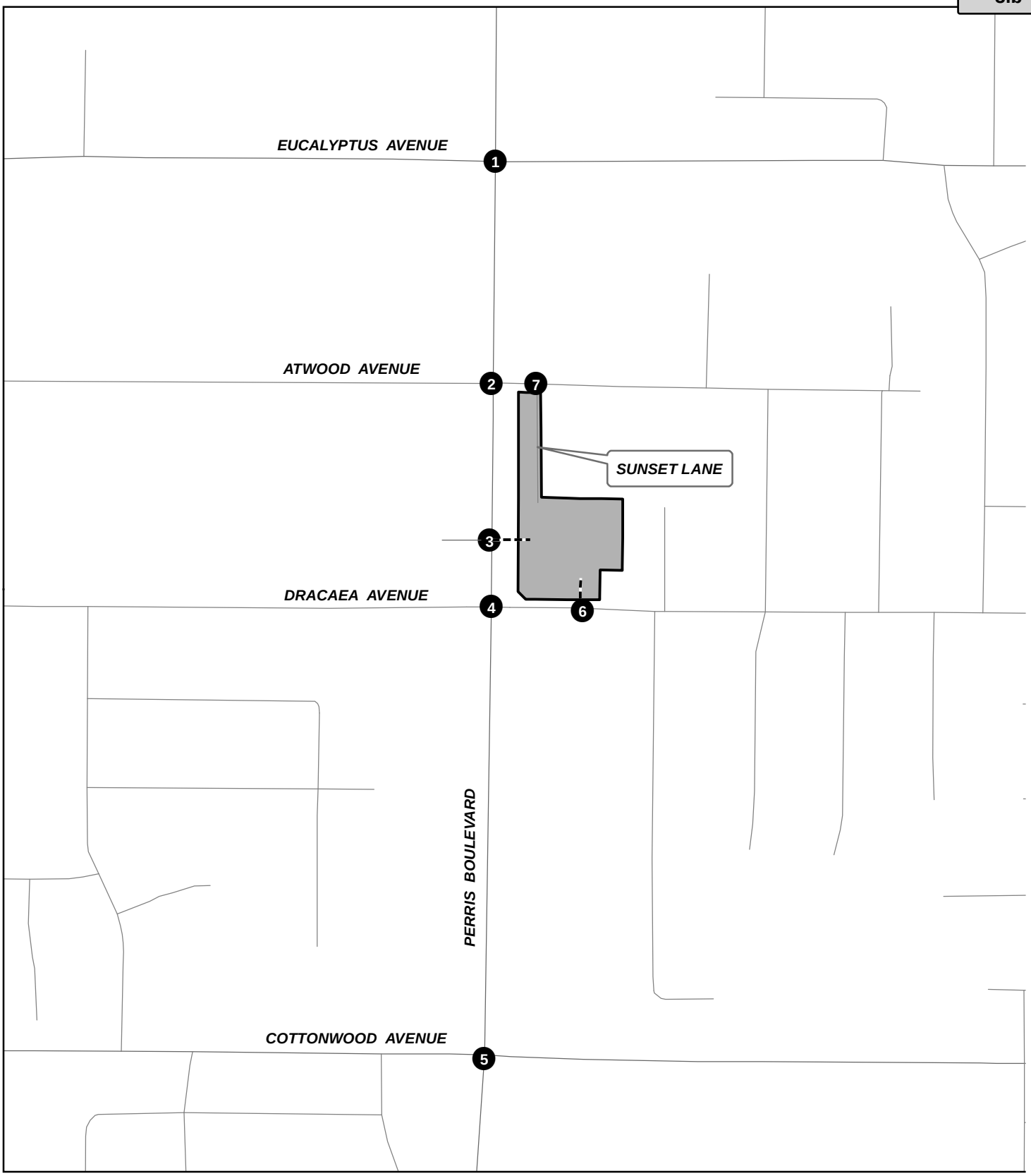
FEET

Perris/Dracaea Commercial Project
Transportation Impact Analysis

Conceptual Site Plan

SOURCE: Cadence Capital Investments LLC; September, 2020

I:\CAQ1901\Reports\Traffic\fig2-2_SitePlan.ai (09/01/2020)



LSA

LEGEND

Project Site

Driveway

Study Intersection

N

0 200 400

FEET

SOURCE: ESRI Streetmap, 2013

I:\CAQ1901\Reports\Traffic\fig1-3_Study_Intersections.mxd (4/2/2020)

FIGURE 3

Perris/Dracaea Commercial Projec
Traffic Impact Analysi

Study Area Intersections

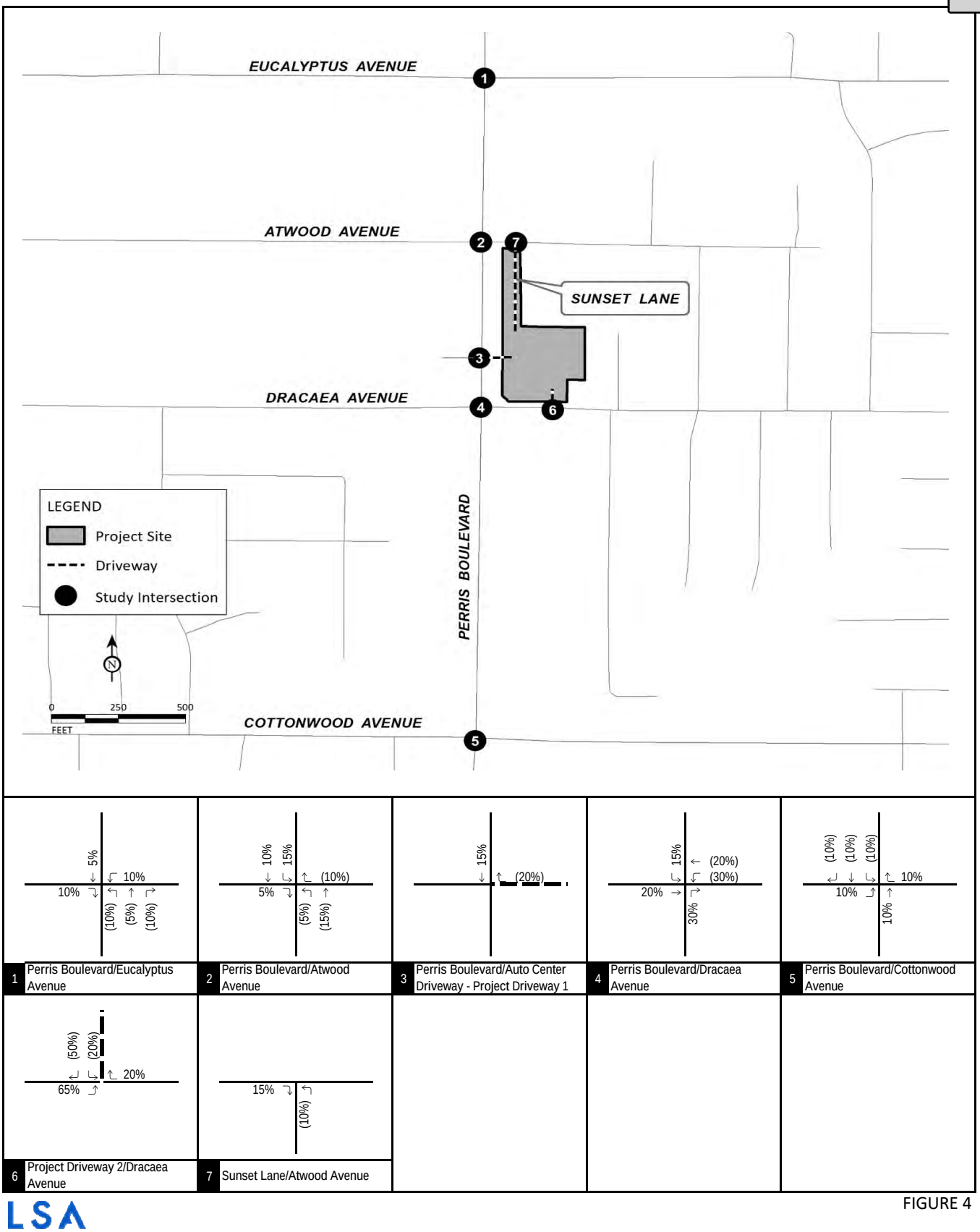


FIGURE 4

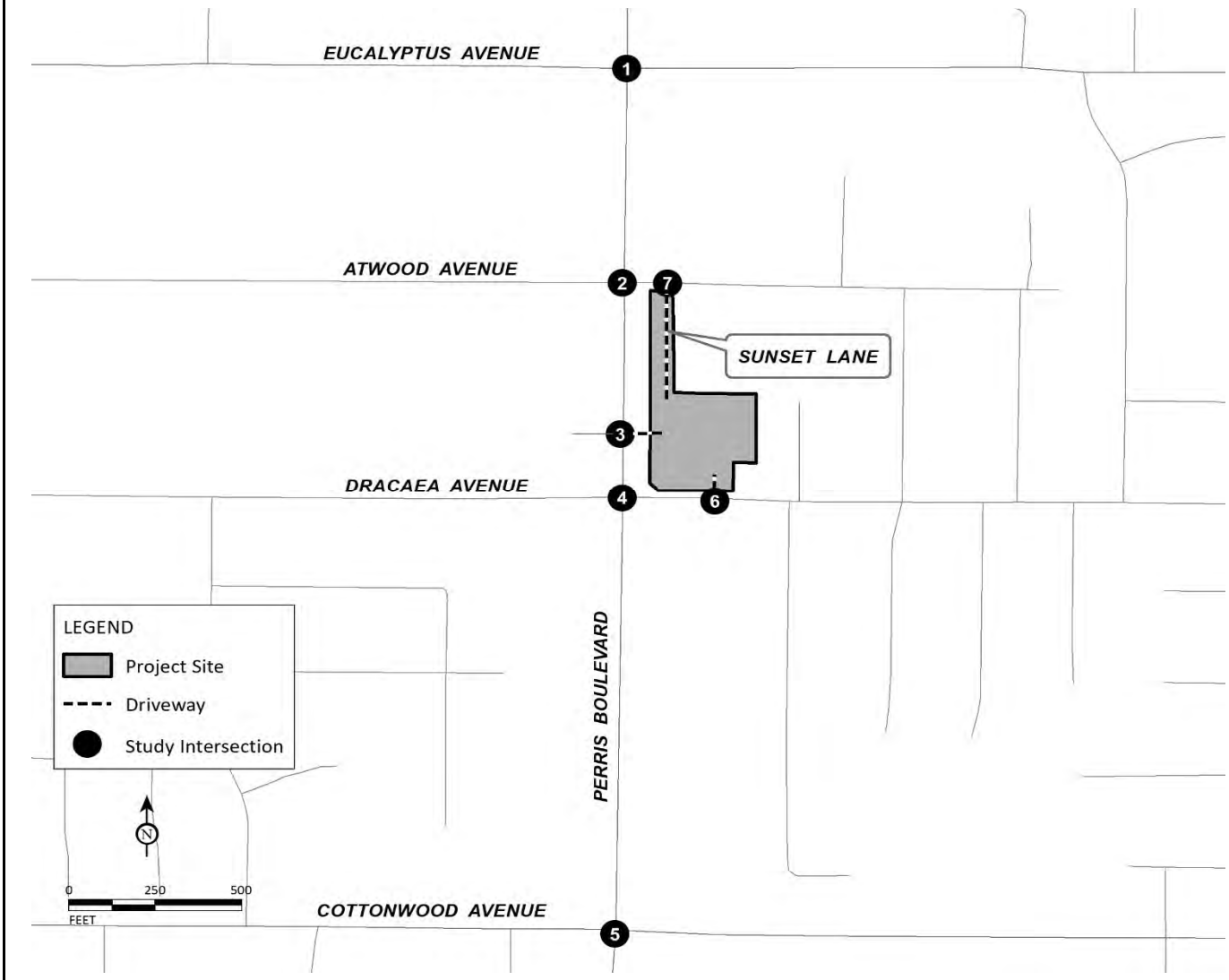
LSA

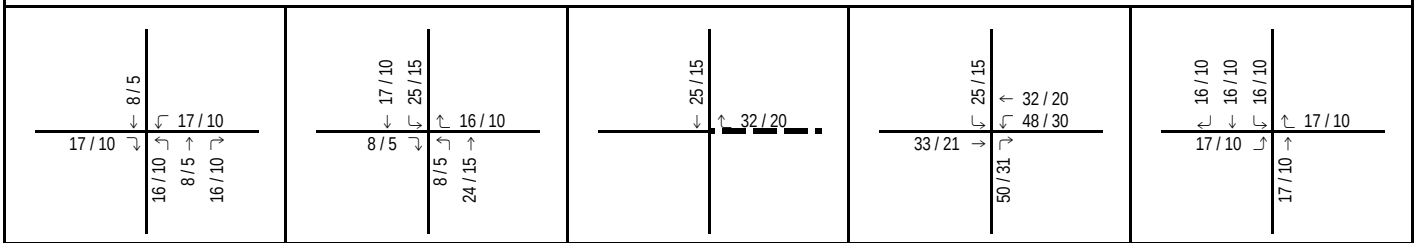
XX% (YY%)
Inbound (Outbound) Trip Distribution
---- Project Driveway

Perris/Dracaea Commercial Project
Traffic Impact Analysis

Project Trip Distribution

R:\CAQ1901\Traffic\August 2020\z30 - Dist.xlsx\Figure (7/31/2020)





1	Perris Boulevard/Eucalyptus Avenue	2	Perris Boulevard/Atwood Avenue	3	Perris Boulevard/Auto Center Driveway - Project Driveway 1	4	Perris Boulevard/Dracaea Avenue	5	Perris Boulevard/Cottonwood Avenue
6	Project Driveway 2/Dracaea Avenue	7	Sunset Lane/Atwood Avenue						

FIGURE 5

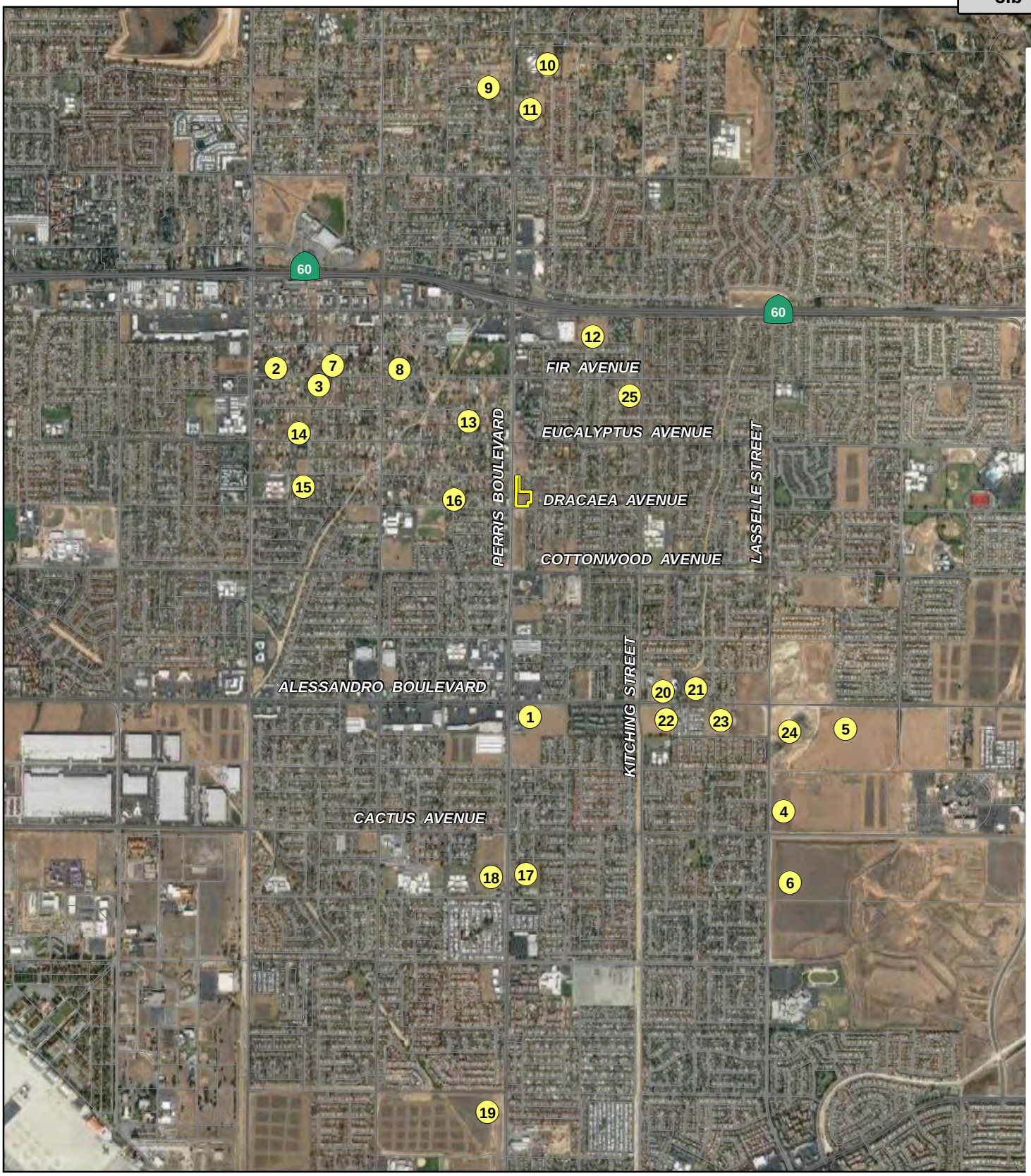
LSA

XX / YY
AM / PM Peak Hour Trips
---- Project Driveway

Perris/Dracaea Commercial Project
Traffic Impact Analysis

Net Project Trip Assignment

R:\CAQ1901\Traffic\August 2020\z30 - Assn.xlsx\Figure (7/31/2020)



LSA

LEGEND

Project Site

Cumulative Project

N

0 1375 2750

FEET

SOURCE: ESRI Streetmap, 2013; Google Earth, 2018.

I:\CAQ1901\Reports\Traffic\fig4-3_CumulProj.mxd (4/2/2020)

FIGURE (

Perris/Dracaea Commercial Projec
Traffic Impact Analysi

Cumulative Project Locations

LSA

Table A - Project Trip Generation

Land Use	Units	A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Daily
Gas Station with Convenience Store	12 VFP							
Trips/Unit[1]		6.36	6.11	12.47	7.13	6.86	13.99	205.36
Trip Generation		76	73	149	86	82	168	2,464
Pass-by Trips[2]		(47)	(45)	(92)	(48)	(46)	(94)	(1,454)
Total Net Trips		29	28	57	38	36	74	1,010
Coffee Shop with Drive Through Window	3.00 TSF							
Trips/Unit		45.38	43.61	88.99	21.69	21.69	43.38	820.38
Trip Generation[3]		136	131	267	65	65	130	2,461
Total Trip Generation		**212**	**204**	**416**	**151**	**147**	**298**	**4,925**
Pass-By Trips		**(47)**	**(45)**	**(92)**	**(48)**	**(46)**	**(94)**	**(1,454)**
Net Trip Generation		**165**	**159**	**324**	**103**	**101**	**204**	**3,471**

Note:

VFP = Vehicle Fueling Positions; TSF = Thousand Square Feet

[1] Rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (10th Edition), Land Use 945 - "Gasoline/Service Station with Convenience Market", Setting/Location - "General Urban/Suburban."

[2] Pass-by rates from the ITE *Trip Generation Handbook* (3rd Edition) for Land Use 945 - "Gasoline/Service Station with Convenience Market." A pass-by rate of 62% was used for the a.m. peak hour and a pass-by rate of 56% was used for the p.m. peak hour. Since there is no data available for daily pass-by trips, the average of a.m. and p.m. pass-by rates was used as the daily pass-by rate.

[3] Rates from the ITE *Trip Generation Manual* (10th Edition), Land Use 937 - "Coffee/Donut Shop with Drive-Through Window", Setting/Location - "General Urban/Suburban."

Table B - Cumulative Projects

Project	Land Use	Units	
1 . PEN16-0039 - LactoSC Inc.	Multi-Family Housing	272	DU
2 . Tract 33771 - Jian Qiang Liu	Multi-Family Housing	12	DU
3 . PEN 16-0066 - Cal Choice Inv. Invc	Multi-Family Housing	20	DU
4 . PA 15-0046 - LA Jolla Development/Rocas Grandes	Multi-Family Housing	426	DU
5 . PA 13-0006 - Rancho Belago Developers, Inc.	Multi-Family Housing	141	DU
6 . PEN 16 - MV Bella Vista GP, LLC	Multi-Family Housing	220	DU
7 . Tract 35663 - Jimmy Lee	Multi-Family Housing	12	DU
8 . PEN 16-0060 - Frederick Homes	Multi-Family Housing	24	DU
9 . Tract 31621 - Victoria Homes "Skyline"	Single-Family Housing	12	DU
10 . Tract 35606 - Metric Homes	Single-Family Housing	16	DU
11 . Tract 31297 - Randy McFarland	Single-Family Housing	7	DU
12 . Tract 31814 - Jessee Huizar	Multi-Family Housing	60	DU
13 . Tract 35369 - Tason Myer Property	Multi-Family Housing	12	DU
14 . Tract 35769 - Michael Chen	Multi-Family Housing	16	DU
15 . PA 09-0006 - Jim Nydam	Multi-Family Housing	15	DU
16 . Tract 35304 - Jimmy Lee	Multi-Family Housing	12	DU
17 . Mo Ghiassi TL Group	Multi-Family Housing	52	DU
18 . Tract 36708 - Nova Homes	Multi-Family Housing	122	DU
19 . Wal-Mart	Commercial	193.00	TSF
20 . Tract 34216 - Creative Design Assoc.	Multi-Family Housing	39	DU
21 . Tract 35429 - Creative Design Assoc.	Multi-Family Housing	58	DU
22 . Tract 35304 - Jimmy Lee	Multi-Family Housing	24	DU
23 . Tract 34681 - Perris Pacific Company	Multi-Family Housing	49	DU
24 . PEN17 - 0064 Boulder Ridge	Multi-Family Housing	141	DU
25 . Tract 34043 - RM3 Building and Development	Single-Family Housing	12	DU

Notes:

DU = Dwelling Units; TSF = Thousand Square Feet

APPENDIX B:

TRAFFIC COUNT SHEETS

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Perris Boulevard
E/W: Eucalyptus Avenue
Weather: Clear

File Name : 01_MRV_Perris_Eucalyptus AM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	8	151	4	163	6	32	46	84	2	232	3	237	4	11	7	22	506
07:15 AM	7	229	12	248	12	40	53	105	7	213	5	225	4	13	9	26	604
07:30 AM	17	299	7	323	22	56	42	120	9	229	13	251	7	20	15	42	736
07:45 AM	26	276	4	306	28	64	43	135	15	267	21	303	7	30	21	58	802
Total	58	955	27	1040	68	192	184	444	33	941	42	1016	22	74	52	148	2648
08:00 AM	21	175	9	205	20	55	54	129	18	262	16	296	3	10	10	23	653
08:15 AM	13	152	4	169	10	42	27	79	18	206	5	229	7	9	5	21	498
08:30 AM	15	112	8	135	7	28	18	53	7	194	8	209	10	13	4	27	424
08:45 AM	10	142	10	162	7	29	35	71	11	200	4	215	13	14	6	33	481
Total	59	581	31	671	44	154	134	332	54	862	33	949	33	46	25	104	2056
Grand Total	117	1536	58	1711	112	346	318	776	87	1803	75	1965	55	120	77	252	4704
Apprch %	6.8	89.8	3.4		14.4	44.6	41		4.4	91.8	3.8		21.8	47.6	30.6		
Total %	2.5	32.7	1.2	36.4	2.4	7.4	6.8	16.5	1.8	38.3	1.6	41.8	1.2	2.6	1.6	5.4	
Passenger Vehicles	115	1462	58	1635	110	340	312	762	84	1730	70	1884	53	119	73	245	4526
% Passenger Vehicles	98.3	95.2	100	95.6	98.2	98.3	98.1	98.2	96.6	96	93.3	95.9	96.4	99.2	94.8	97.2	96.2
Large 2 Axle Vehicles	2	58	0	60	2	6	6	14	3	44	2	49	2	1	4	7	130
% Large 2 Axle Vehicles	1.7	3.8	0	3.5	1.8	1.7	1.9	1.8	3.4	2.4	2.7	2.5	3.6	0.8	5.2	2.8	2.8
3 Axle Vehicles	0	2	0	2	0	0	0	0	0	2	2	4	0	0	0	0	6
% 3 Axle Vehicles	0	0.1	0	0.1	0	0	0	0	0	0.1	2.7	0.2	0	0	0	0	0.1
4+ Axle Trucks	0	14	0	14	0	0	0	0	0	27	1	28	0	0	0	0	42
% 4+ Axle Trucks	0	0.9	0	0.8	0	0	0	0	0	1.5	1.3	1.4	0	0	0	0	0.9

	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	7	229	**12**	248	12	40	53	105	7	213	5	225	4	13	9	26	604
07:30 AM	17	**299**	7	**323**	22	56	42	120	9	229	13	251	**7**	20	15	42	736
07:45 AM	**26**	276	4	306	**28**	**64**	43	**135**	15	**267**	**21**	**303**	7	**30**	**21**	**58**	**802**
08:00 AM	21	175	9	205	20	55	**54**	129	**18**	262	16	296	3	10	10	23	653
Total Volume	71	979	32	1082	82	215	192	489	49	971	55	1075	21	73	55	149	2795
% App. Total	6.6	90.5	3		16.8	44	39.3		4.6	90.3	5.1		14.1	49	36.9		
PHF	.683	.819	.667	.837	.732	.840	.889	.906	.681	.909	.655	.887	.750	.608	.655	.642	.871

Counts Unlimited
PO Box 1178
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City of Moreno Valley
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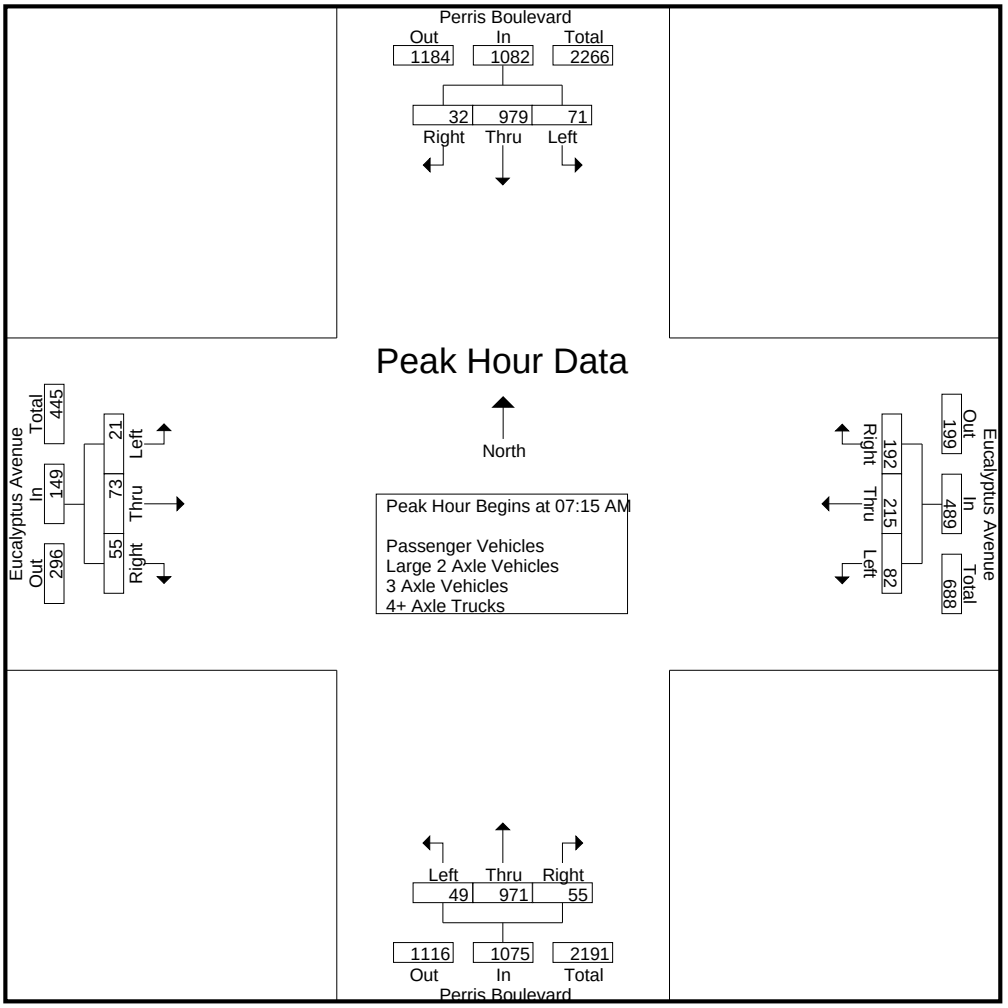
E/W: Eucalyptus Avenue
Weather: Clear

File Name : 01_MRV_Perris_Eucalyptus AM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:30 AM				07:15 AM			
+0 mins.	7	229	**12**	248	12	40	53	105	9	229	13	251	4	13	9	26
+15 mins.	17	**299**	7	**323**	22	56	42	120	15	**267**	**21**	**303**	**7**	20	15	42
+30 mins.	**26**	276	4	306	**28**	**64**	43	**135**	**18**	262	16	296	7	**30**	**21**	**58**
+45 mins.	21	175	9	205	20	55	**54**	129	18	206	5	229	3	10	10	23
Total Volume	71	979	32	1082	82	215	192	489	60	964	55	1079	21	73	55	149
% App. Total	6.6	90.5	3		16.8	44	39.3		5.6	89.3	5.1		14.1	49	36.9	
PHF	.683	.819	.667	.837	.732	.840	.889	.906	.833	.903	.655	.890	.750	.608	.655	.642

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City of Moreno Valley
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E/W: Eucalyptus Avenue
Weather: Clear

File Name : 01_MRV_Perris_Eucalyptus AM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 1

Groups Printed- Passenger Vehicles

	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	8	143	4	155	6	31	45	82	2	220	3	225	3	10	7	20	482
07:15 AM	7	223	12	242	11	40	53	104	7	206	4	217	3	13	8	24	587
07:30 AM	16	293	7	316	22	56	42	120	8	220	11	239	7	20	14	41	716
07:45 AM	26	263	4	293	28	62	42	132	15	258	21	294	7	30	21	58	777
Total	57	922	27	1006	67	189	182	438	32	904	39	975	20	73	50	143	2562
08:00 AM	20	168	9	197	20	53	52	125	18	254	15	287	3	10	10	23	632
08:15 AM	13	138	4	155	10	42	26	78	17	196	4	217	7	9	3	19	469
08:30 AM	15	101	8	124	6	28	18	52	7	187	8	202	10	13	4	27	405
08:45 AM	10	133	10	153	7	28	34	69	10	189	4	203	13	14	6	33	458
Total	58	540	31	629	43	151	130	324	52	826	31	909	33	46	23	102	1964
Grand Total	115	1462	58	1635	110	340	312	762	84	1730	70	1884	53	119	73	245	4526
Apprch %	7	89.4	3.5		14.4	44.6	40.9		4.5	91.8	3.7		21.6	48.6	29.8		
Total %	2.5	32.3	1.3	36.1	2.4	7.5	6.9	16.8	1.9	38.2	1.5	41.6	1.2	2.6	1.6	5.4	

	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	7	223	**12**	242	11	40	**53**	104	7	206	4	217	3	13	8	24	587
07:30 AM	16	**293**	7	**316**	22	56	42	120	8	220	11	239	**7**	20	14	41	716
07:45 AM	**26**	263	4	293	**28**	**62**	42	**132**	15	**258**	**21**	**294**	7	**30**	**21**	**58**	**777**
08:00 AM	20	168	9	197	20	53	52	125	**18**	254	15	287	3	10	10	23	632
Total Volume	69	947	32	1048	81	211	189	481	48	938	51	1037	20	73	53	146	2712
% App. Total	6.6	90.4	3.1		16.8	43.9	39.3		4.6	90.5	4.9		13.7	50	36.3		
PHF	.663	.808	.667	.829	.723	.851	.892	.911	.667	.909	.607	.882	.714	.608	.631	.629	.873

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Site Code : 00319397
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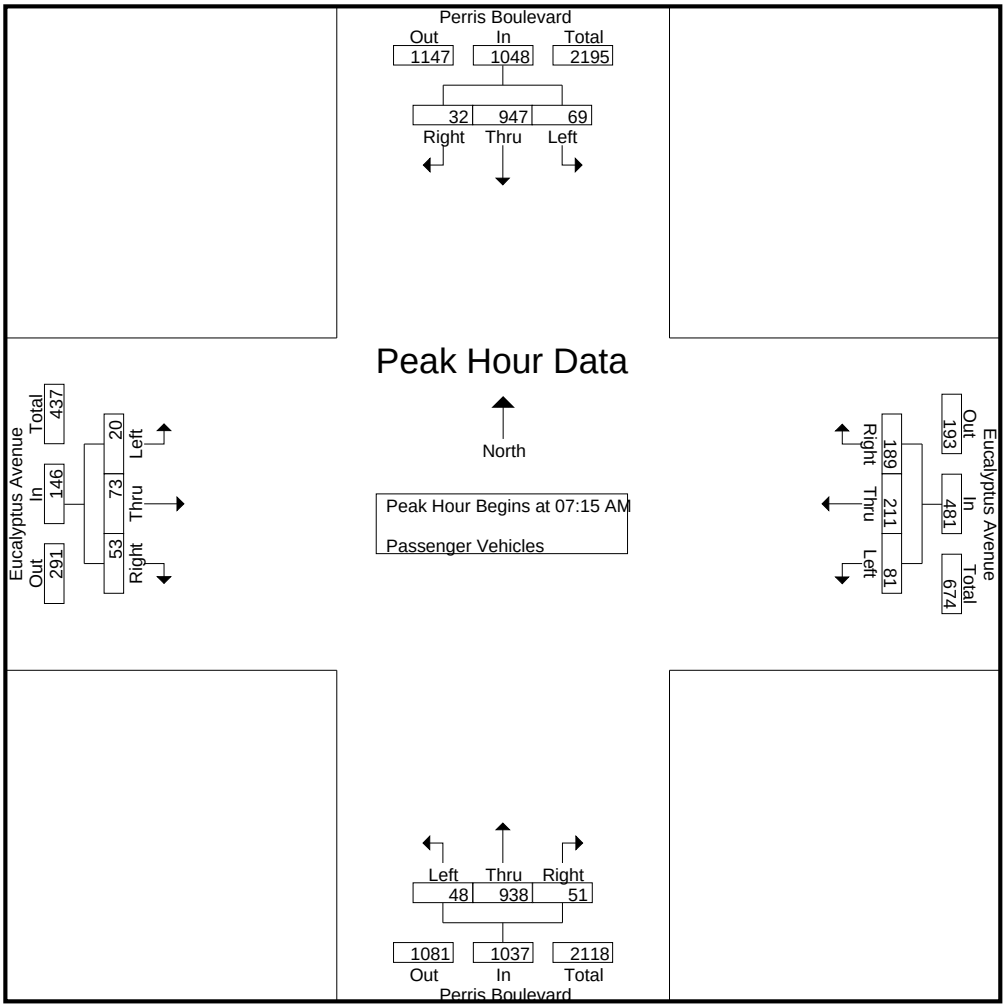

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	7	223	**12**	242	11	40	**53**	104	7	206	4	217	3	13	8	24
+15 mins.	16	**293**	7	**316**	22	56	42	120	8	220	11	239	**7**	20	14	41
+30 mins.	**26**	263	4	293	**28**	**62**	42	**132**	15	**258**	**21**	**294**	7	**30**	**21**	**58**
+45 mins.	20	168	9	197	20	53	52	125	**18**	254	15	287	3	10	10	23
Total Volume	69	947	32	1048	81	211	189	481	48	938	51	1037	20	73	53	146
% App. Total	6.6	90.4	3.1		16.8	43.9	39.3		4.6	90.5	4.9		13.7	50	36.3	
PHF	.663	.808	.667	.829	.723	.851	.892	.911	.667	.909	.607	.882	.714	.608	.631	.629

Counts Unlimited
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City of Moreno Valley
N/S: Perris Boulevard
E/W: Eucalyptus Avenue
Weather: Clear

File Name : 01_MRV_Perris_Eucalyptus AM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	7	0	7	0	1	1	2	0	7	0	7	1	1	0	2	18
07:15 AM	0	6	0	6	1	0	0	1	0	4	0	4	1	0	1	2	13
07:30 AM	1	4	0	5	0	0	0	0	1	7	1	9	0	0	1	1	15
07:45 AM	0	11	0	11	0	2	1	3	0	8	0	8	0	0	0	0	22
Total	1	28	0	29	1	3	2	6	1	26	1	28	2	1	2	5	68
08:00 AM	1	3	0	4	0	2	2	4	0	4	1	5	0	0	0	0	13
08:15 AM	0	10	0	10	0	0	1	1	1	4	0	5	0	0	2	2	18
08:30 AM	0	11	0	11	1	0	0	1	0	4	0	4	0	0	0	0	16
08:45 AM	0	6	0	6	0	1	1	2	1	6	0	7	0	0	0	0	15
Total	1	30	0	31	1	3	4	8	2	18	1	21	0	0	2	2	62
Grand Total	2	58	0	60	2	6	6	14	3	44	2	49	2	1	4	7	130
Apprch %	3.3	96.7	0		14.3	42.9	42.9		6.1	89.8	4.1		28.6	14.3	57.1		
Total %	1.5	44.6	0	46.2	1.5	4.6	4.6	10.8	2.3	33.8	1.5	37.7	1.5	0.8	3.1	5.4	

	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	6	0	6	**1**	0	0	1	0	4	0	4	**1**	0	**1**	**2**	13
07:30 AM	**1**	4	0	5	0	0	0	0	**1**	7	**1**	**9**	0	0	1	1	15
07:45 AM	0	**11**	0	**11**	0	**2**	1	3	0	**8**	0	8	0	0	0	0	**22**
08:00 AM	1	3	0	4	0	2	**2**	**4**	0	4	1	5	0	0	0	0	13
Total Volume	2	24	0	26	1	4	3	8	1	23	2	26	1	0	2	3	63
% App. Total	7.7	92.3	0		12.5	50	37.5		3.8	88.5	7.7		33.3	0	66.7		
PHF	.500	.545	.000	.591	.250	.500	.375	.500	.250	.719	.500	.722	.250	.000	.500	.375	.716

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Eucalyptus Avenue
Weather: Clear

File Name : 01_MRV_Perris_Eucalyptus AM
Site Code : 00319397
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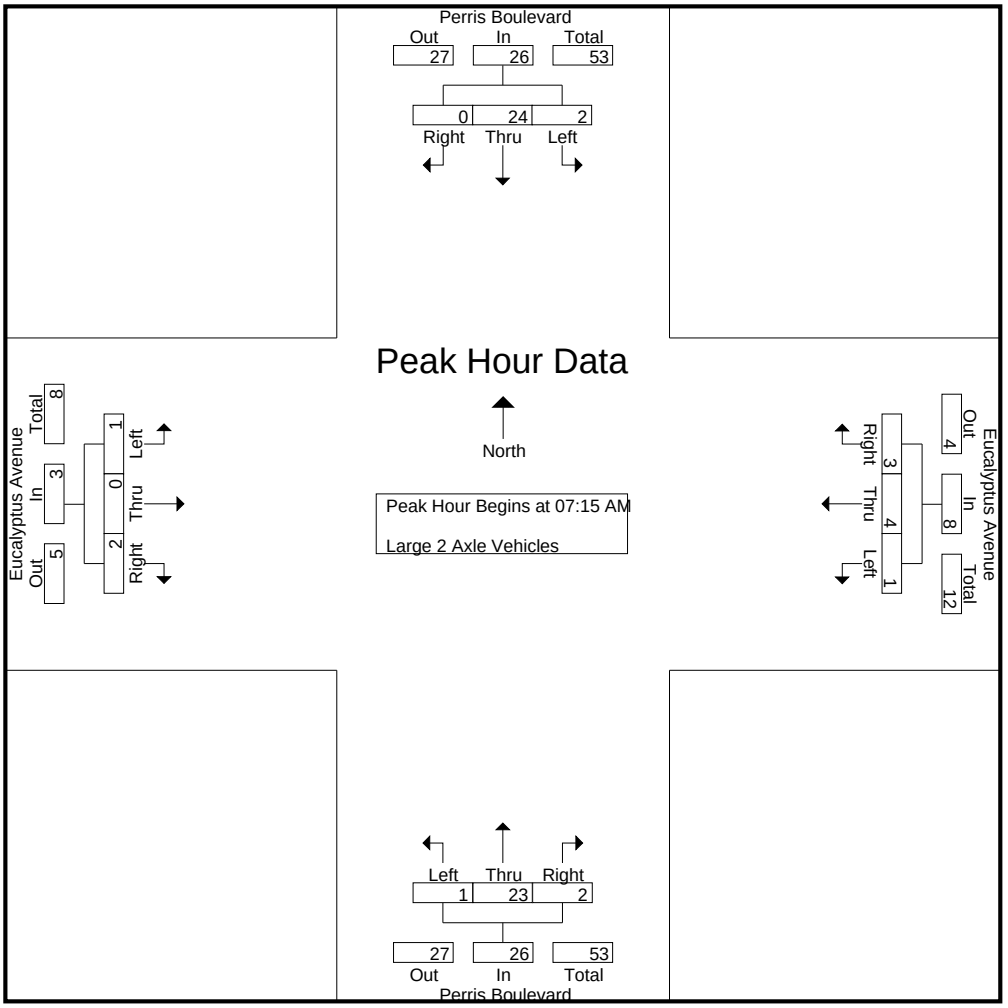

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	6	0	6	**1**	0	0	1	0	4	0	4	**1**	0	**1**	**2**
+15 mins.	**1**	4	0	5	0	0	0	0	**1**	7	**1**	**9**	0	0	1	1
+30 mins.	0	**11**	0	**11**	0	**2**	1	3	0	**8**	0	8	0	0	0	0
+45 mins.	1	3	0	4	0	2	**2**	**4**	0	4	1	5	0	0	0	0
Total Volume	2	24	0	26	1	4	3	8	1	23	2	26	1	0	2	3
% App. Total	7.7	92.3	0		12.5	50	37.5		3.8	88.5	7.7		33.3	0	66.7	
PHF	.500	.545	.000	.591	.250	.500	.375	.500	.250	.719	.500	.722	.250	.000	.500	.375

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City of Moreno Valley
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File Name : 01_MRV_Perris_Eucalyptus AM
Site Code : 00319397
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Groups Printed- 3 Axle Vehicles

	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	2	2	4	0	0	0	0	5
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	2	0	2	0	0	0	0	0	2	2	4	0	0	0	0	6
Apprch %	0	100	0		0	0	0		0	50	50		0	0	0		
Total %	0	33.3	0	33.3	0	0	0	0	0	33.3	33.3	66.7	0	0	0	0	

	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	0	**1**	**1**	**2**	0	0	0	0	**2**
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
07:45 AM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	1	2	3	0	0	0	0	4
% App. Total	0	100	0		0	0	0		0	33.3	66.7		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.500	.375	.000	.000	.000	.000	.500

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City of Moreno Valley
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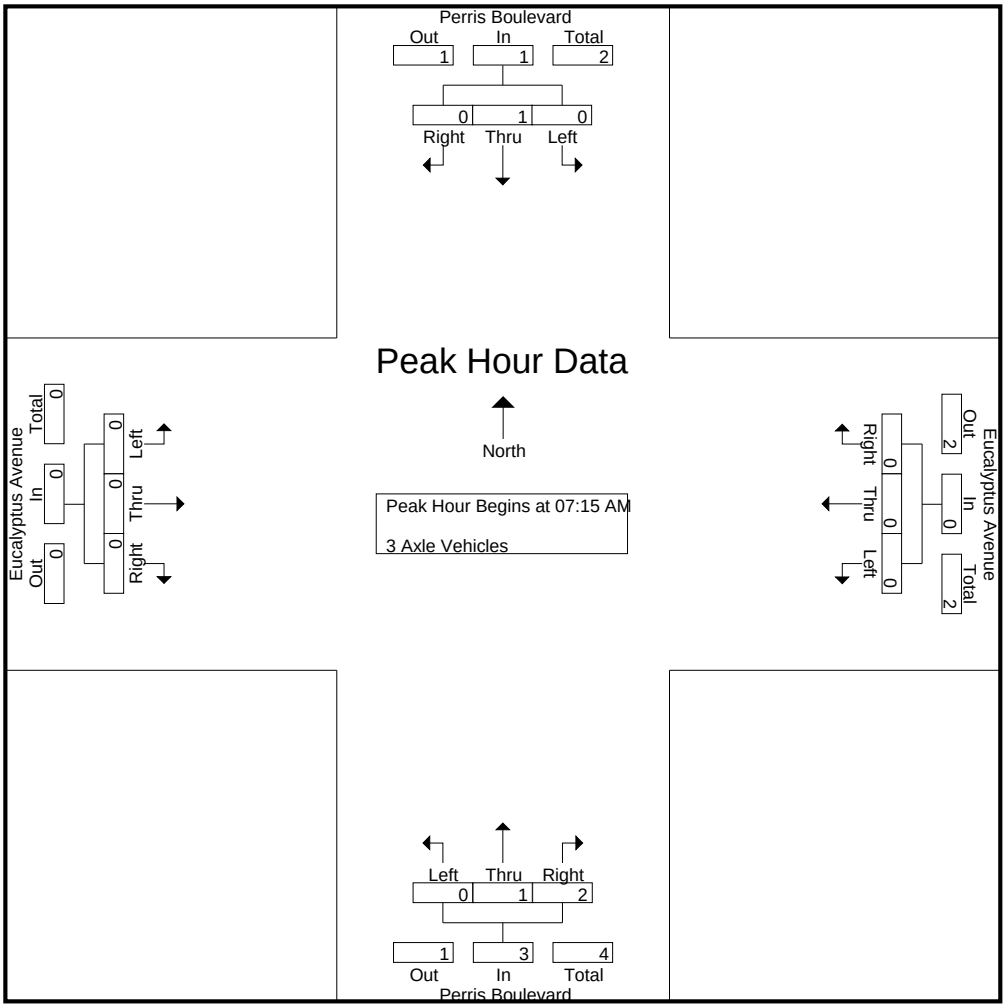

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	**1**	**1**	**2**	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
+30 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	1	2	3	0	0	0	0
% App. Total	0	100	0		0	0	0		0	33.3	66.7		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.500	.375	.000	.000	.000	.000

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City of Moreno Valley
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File Name : 01_MRV_Perris_Eucalyptus AM
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Groups Printed- 4+ Axle Trucks

	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	0	0	0	0	4	0	4	0	0	0	0	5
07:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
07:30 AM	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0	4
07:45 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	0	4	0	4	0	0	0	0	0	9	0	9	0	0	0	0	13
08:00 AM	0	4	0	4	0	0	0	0	0	4	0	4	0	0	0	0	8
08:15 AM	0	3	0	3	0	0	0	0	0	6	1	7	0	0	0	0	10
08:30 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
08:45 AM	0	3	0	3	0	0	0	0	0	5	0	5	0	0	0	0	8
Total	0	10	0	10	0	0	0	0	0	18	1	19	0	0	0	0	29
Grand Total	0	14	0	14	0	0	0	0	0	27	1	28	0	0	0	0	42
Apprch %	0	100	0		0	0	0		0	96.4	3.6		0	0	0		
Total %	0	33.3	0	33.3	0	0	0	0	0	64.3	2.4	66.7	0	0	0	0	

	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
07:30 AM	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0	4
07:45 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
08:00 AM	0	**4**	0	**4**	0	0	0	0	0	**4**	0	**4**	0	0	0	0	**8**
Total Volume	0	7	0	7	0	0	0	0	0	9	0	9	0	0	0	0	16
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.438	.000	.438	.000	.000	.000	.000	.000	.563	.000	.563	.000	.000	.000	.000	.500

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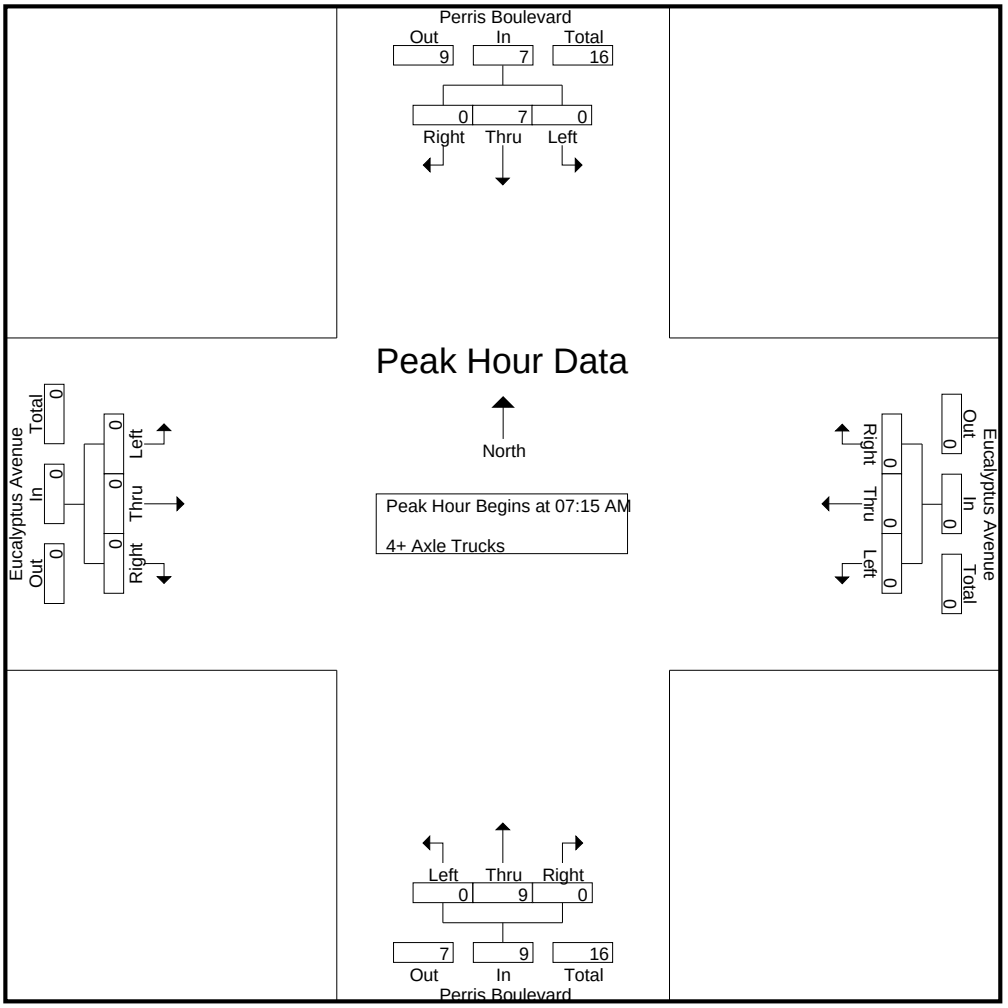

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0
+15 mins.	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	**4**	0	**4**	0	0	0	0	0	**4**	0	**4**	0	0	0	0
Total Volume	0	7	0	7	0	0	0	0	0	9	0	9	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.438	.000	.438	.000	.000	.000	.000	.000	.563	.000	.563	.000	.000	.000	.000

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	24	259	6	289	7	29	36	72	10	218	17	245	15	50	20	85	691
04:15 PM	20	253	8	281	12	24	35	71	11	260	9	280	12	42	18	72	704
04:30 PM	25	276	7	308	16	28	24	68	10	252	15	277	14	29	20	63	716
04:45 PM	17	255	14	286	10	30	21	61	11	241	17	269	7	34	14	55	671
Total	86	1043	35	1164	45	111	116	272	42	971	58	1071	48	155	72	275	2782
05:00 PM	27	268	15	310	12	30	35	77	16	236	10	262	11	64	25	100	749
05:15 PM	27	241	9	277	14	39	28	81	13	234	16	263	19	59	19	97	718
05:30 PM	26	271	7	304	7	35	27	69	11	213	11	235	9	56	13	78	686
05:45 PM	17	253	17	287	13	33	29	75	9	240	13	262	10	38	17	65	689
Total	97	1033	48	1178	46	137	119	302	49	923	50	1022	49	217	74	340	2842
Grand Total	183	2076	83	2342	91	248	235	574	91	1894	108	2093	97	372	146	615	5624
Apprch %	7.8	88.6	3.5		15.9	43.2	40.9		4.3	90.5	5.2		15.8	60.5	23.7		
Total %	3.3	36.9	1.5	41.6	1.6	4.4	4.2	10.2	1.6	33.7	1.9	37.2	1.7	6.6	2.6	10.9	
Passenger Vehicles	181	2024	83	2288	91	248	234	573	88	1856	107	2051	97	368	145	610	5522
% Passenger Vehicles	98.9	97.5	100	97.7	100	100	99.6	99.8	96.7	98	99.1	98	100	98.9	99.3	99.2	98.2
Large 2 Axle Vehicles	2	32	0	34	0	0	1	1	3	27	0	30	0	3	0	3	68
% Large 2 Axle Vehicles	1.1	1.5	0	1.5	0	0	0.4	0.2	3.3	1.4	0	1.4	0	0.8	0	0.5	1.2
3 Axle Vehicles	0	5	0	5	0	0	0	0	0	2	1	3	0	0	1	1	9
% 3 Axle Vehicles	0	0.2	0	0.2	0	0	0	0	0	0.1	0.9	0.1	0	0	0.7	0.2	0.2
4+ Axle Trucks	0	15	0	15	0	0	0	0	0	9	0	9	0	1	0	1	25
% 4+ Axle Trucks	0	0.7	0	0.6	0	0	0	0	0	0.5	0	0.4	0	0.3	0	0.2	0.4

	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	25	**276**	7	308	**16**	28	24	68	10	**252**	15	**277**	14	29	20	63	716
04:45 PM	17	255	14	286	10	30	21	61	11	241	**17**	269	7	34	14	55	671
05:00 PM	**27**	268	**15**	**310**	12	30	**35**	77	**16**	236	10	262	11	**64**	**25**	**100**	**749**
05:15 PM	27	241	9	277	14	**39**	28	**81**	13	234	16	263	**19**	59	19	97	718
Total Volume	96	1040	45	1181	52	127	108	287	50	963	58	1071	51	186	78	315	2854
% App. Total	8.1	88.1	3.8		18.1	44.3	37.6		4.7	89.9	5.4		16.2	59	24.8		
PHF	.889	.942	.750	.952	.813	.814	.771	.886	.781	.955	.853	.967	.671	.727	.780	.788	.953

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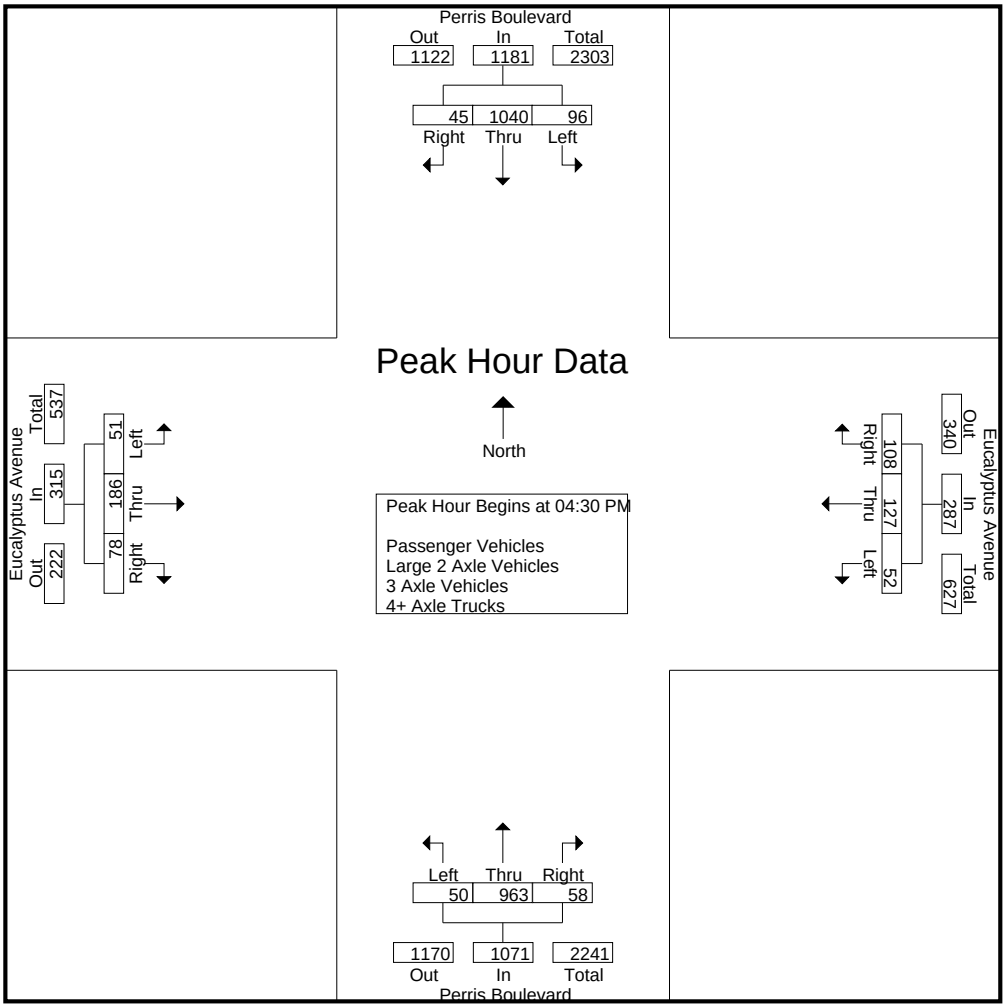

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				05:00 PM				04:15 PM				05:00 PM			
+0 mins.	20	253	8	281	12	30	**35**	77	11	**260**	9	**280**	11	**64**	**25**	**100**
+15 mins.	25	**276**	7	308	**14**	**39**	28	**81**	10	252	15	277	**19**	59	19	97
+30 mins.	17	255	14	286	7	35	27	69	11	241	**17**	269	9	56	13	78
+45 mins.	**27**	268	**15**	**310**	13	33	29	75	**16**	236	10	262	10	38	17	65
Total Volume	89	1052	44	1185	46	137	119	302	48	989	51	1088	49	217	74	340
% App. Total	7.5	88.8	3.7		15.2	45.4	39.4		4.4	90.9	4.7		14.4	63.8	21.8	
PHF	.824	.953	.733	.956	.821	.878	.850	.932	.750	.951	.750	.971	.645	.848	.740	.850

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Groups Printed- Passenger Vehicles

	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	24	251	6	281	7	29	35	71	8	210	17	235	15	49	20	84	671
04:15 PM	20	240	8	268	12	24	35	71	11	257	9	277	12	42	18	72	688
04:30 PM	24	269	7	300	16	28	24	68	10	248	15	273	14	28	19	61	702
04:45 PM	17	248	14	279	10	30	21	61	10	238	17	265	7	34	14	55	660
Total	85	1008	35	1128	45	111	115	271	39	953	58	1050	48	153	71	272	2721
05:00 PM	27	264	15	306	12	30	35	77	16	231	9	256	11	64	25	100	739
05:15 PM	26	235	9	270	14	39	28	81	13	229	16	258	19	58	19	96	705
05:30 PM	26	269	7	302	7	35	27	69	11	212	11	234	9	56	13	78	683
05:45 PM	17	248	17	282	13	33	29	75	9	231	13	253	10	37	17	64	674
Total	96	1016	48	1160	46	137	119	302	49	903	49	1001	49	215	74	338	2801
Grand Total	181	2024	83	2288	91	248	234	573	88	1856	107	2051	97	368	145	610	5522
Apprch %	7.9	88.5	3.6		15.9	43.3	40.8		4.3	90.5	5.2		15.9	60.3	23.8		
Total %	3.3	36.7	1.5	41.4	1.6	4.5	4.2	10.4	1.6	33.6	1.9	37.1	1.8	6.7	2.6	11	

	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	24	**269**	7	300	**16**	28	24	68	10	**248**	15	**273**	14	28	19	61	702
04:45 PM	17	248	14	279	10	30	21	61	10	238	**17**	265	7	34	14	55	660
05:00 PM	**27**	264	**15**	**306**	12	30	**35**	77	**16**	231	9	256	11	**64**	**25**	**100**	**739**
05:15 PM	26	235	9	270	14	**39**	28	**81**	13	229	16	258	**19**	58	19	96	705
Total Volume	94	1016	45	1155	52	127	108	287	49	946	57	1052	51	184	77	312	2806
% App. Total	8.1	88	3.9		18.1	44.3	37.6		4.7	89.9	5.4		16.3	59	24.7		
PHF	.870	.944	.750	.944	.813	.814	.771	.886	.766	.954	.838	.963	.671	.719	.770	.780	.949

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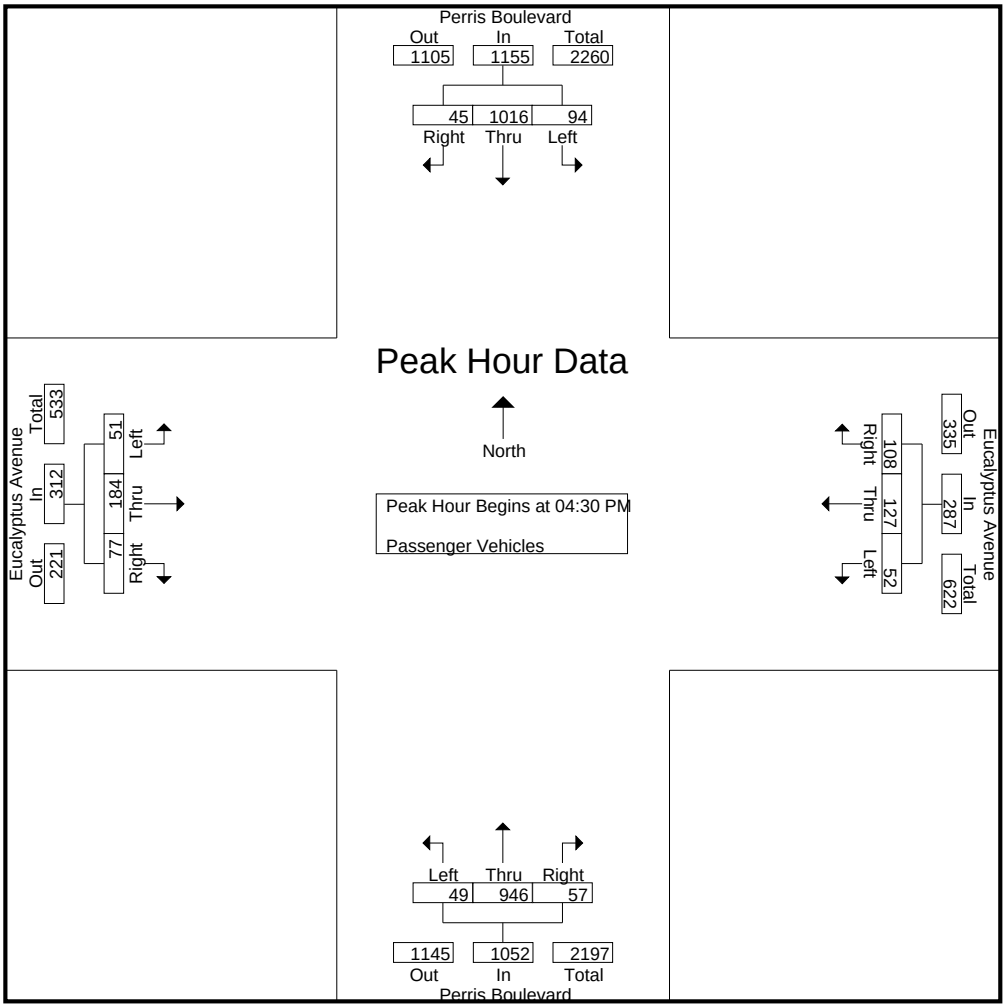

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	24	**269**	7	300	**16**	28	24	68	10	**248**	15	**273**	14	28	19	61
+15 mins.	17	248	14	279	10	30	21	61	10	238	**17**	265	7	34	14	55
+30 mins.	**27**	264	**15**	**306**	12	30	**35**	77	**16**	231	9	256	11	**64**	**25**	**100**
+45 mins.	26	235	9	270	14	**39**	28	**81**	13	229	16	258	**19**	58	19	96
Total Volume	94	1016	45	1155	52	127	108	287	49	946	57	1052	51	184	77	312
% App. Total	8.1	88	3.9		18.1	44.3	37.6		4.7	89.9	5.4		16.3	59	24.7	
PHF	.870	.944	.750	.944	.813	.814	.771	.886	.766	.954	.838	.963	.671	.719	.770	.780

Counts Unlimited
PO Box 1178
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City of Moreno Valley
N/S: Perris Boulevard
E/W: Eucalyptus Avenue
Weather: Clear

File Name : 01_MRV_Perris_Eucalyptus PM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	5	0	5	0	0	1	1	2	6	0	8	0	1	0	1	15
04:15 PM	0	6	0	6	0	0	0	0	0	3	0	3	0	0	0	0	9
04:30 PM	1	4	0	5	0	0	0	0	0	2	0	2	0	1	0	1	8
04:45 PM	0	4	0	4	0	0	0	0	1	3	0	4	0	0	0	0	8
Total	1	19	0	20	0	0	1	1	3	14	0	17	0	2	0	2	40
05:00 PM	0	3	0	3	0	0	0	0	0	4	0	4	0	0	0	0	7
05:15 PM	1	4	0	5	0	0	0	0	0	3	0	3	0	0	0	0	8
05:30 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
05:45 PM	0	4	0	4	0	0	0	0	0	6	0	6	0	1	0	1	11
Total	1	13	0	14	0	0	0	0	0	13	0	13	0	1	0	1	28
Grand Total	2	32	0	34	0	0	1	1	3	27	0	30	0	3	0	3	68
Apprch %	5.9	94.1	0		0	0	100		10	90	0		0	100	0		
Total %	2.9	47.1	0	50	0	0	1.5	1.5	4.4	39.7	0	44.1	0	4.4	0	4.4	

	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**1**	**4**	0	**5**	0	0	0	0	0	2	0	2	0	**1**	0	**1**	**8**
04:45 PM	0	4	0	4	0	0	0	0	**1**	3	0	**4**	0	0	0	0	8
05:00 PM	0	3	0	3	0	0	0	0	0	**4**	0	4	0	0	0	0	7
05:15 PM	1	4	0	5	0	0	0	0	0	3	0	3	0	0	0	0	8
Total Volume	2	15	0	17	0	0	0	0	1	12	0	13	0	1	0	1	31
% App. Total	11.8	88.2	0		0	0	0		7.7	92.3	0		0	100	0		
PHF	.500	.938	.000	.850	.000	.000	.000	.000	.250	.750	.000	.813	.000	.250	.000	.250	.969

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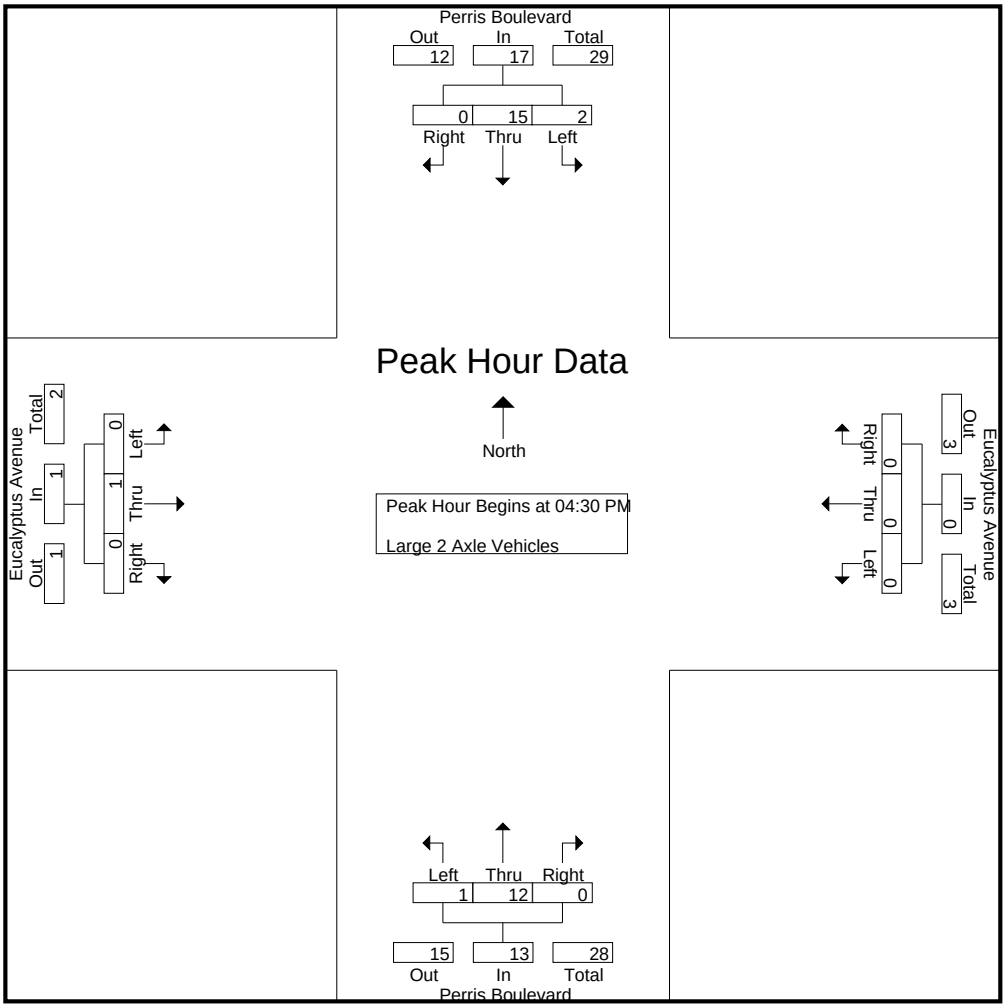
City of Moreno Valley
N/S: Perris Boulevard
E/W: Eucalyptus Avenue
Weather: Clear

File Name : 01_MRV_Perris_Eucalyptus PM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	**1**	**4**	0	**5**	0	0	0	0	0	2	0	2	0	**1**	0	**1**
+15 mins.	0	4	0	4	0	0	0	0	**1**	3	0	**4**	0	0	0	0
+30 mins.	0	3	0	3	0	0	0	0	0	**4**	0	4	0	0	0	0
+45 mins.	1	4	0	5	0	0	0	0	0	3	0	3	0	0	0	0
Total Volume	2	15	0	17	0	0	0	0	1	12	0	13	0	1	0	1
% App. Total	11.8	88.2	0		0	0	0		7.7	92.3	0		0	100	0	
PHF	.500	.938	.000	.850	.000	.000	.000	.000	.250	.750	.000	.813	.000	.250	.000	.250

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Eucalyptus Avenue
Weather: Clear

File Name : 01_MRV_Perris_Eucalyptus PM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
04:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	4	0	4	0	0	0	0	0	1	0	1	0	0	1	1	6
05:00 PM	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	2
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	1	1	2	0	0	0	0	3
Grand Total	0	5	0	5	0	0	0	0	0	2	1	3	0	0	1	1	9
Apprch %	0	100	0		0	0	0		0	66.7	33.3		0	0	100		
Total %	0	55.6	0	55.6	0	0	0	0	0	22.2	11.1	33.3	0	0	11.1	11.1	

	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**2**
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	1	0	1	0	0	0	0	0	0	**1**	**1**	0	0	0	0	2
05:15 PM	0	0	0	0	0	0	0	0	0	**1**	0	1	0	0	0	0	1
Total Volume	0	3	0	3	0	0	0	0	0	1	1	2	0	0	1	1	6
% App. Total	0	100	0		0	0	0		0	50	50		0	0	100		
PHF	.000	.750	.000	.750	.000	.000	.000	.000	.000	.250	.250	.500	.000	.000	.250	.250	.750

Counts Unlimited
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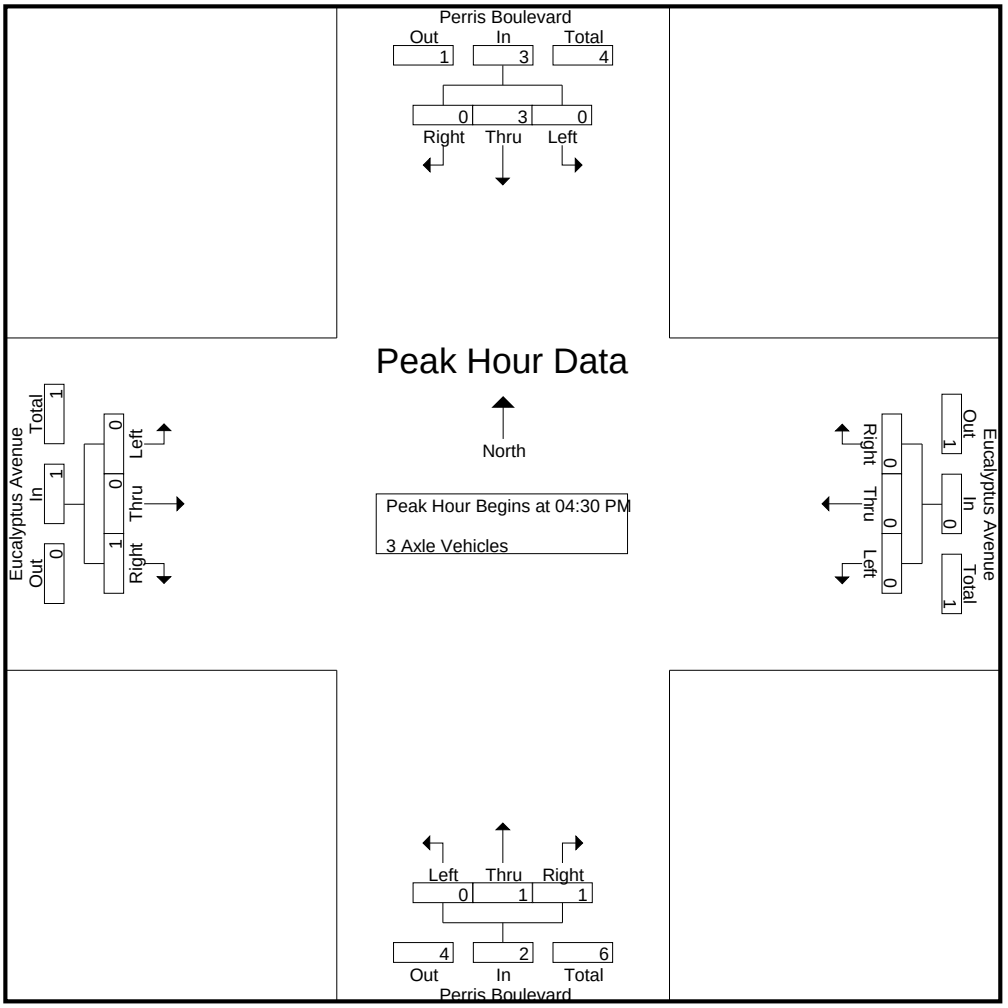
City of Moreno Valley
N/S: Perris Boulevard
E/W: Eucalyptus Avenue
Weather: Clear

File Name : 01_MRV_Perris_Eucalyptus PM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	**1**	**1**
+15 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	0	**1**	**1**	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	**1**	0	1	0	0	0	0
Total Volume	0	3	0	3	0	0	0	0	0	1	1	2	0	0	1	1
% App. Total	0	100	0		0	0	0		0	50	50		0	0	100	
PHF	.000	.750	.000	.750	.000	.000	.000	.000	.000	.250	.250	.500	.000	.000	.250	.250

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Eucalyptus Avenue
Weather: Clear

File Name : 01_MRV_Perris_Eucalyptus PM
Site Code : 00319397
Start Date : 5/23/2019
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Groups Printed- 4+ Axle Trucks

	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
04:15 PM	0	6	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
04:30 PM	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0	4
04:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	12	0	12	0	0	0	0	0	3	0	3	0	0	0	0	15
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:15 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	1	0	1	4
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:45 PM	0	1	0	1	0	0	0	0	0	3	0	3	0	0	0	0	4
Total	0	3	0	3	0	0	0	0	0	6	0	6	0	1	0	1	10
Grand Total	0	15	0	15	0	0	0	0	0	9	0	9	0	1	0	1	25
Apprch %	0	100	0		0	0	0		0	100	0		0	100	0		
Total %	0	60	0	60	0	0	0	0	0	36	0	36	0	4	0	4	

	Perris Boulevard Southbound				Eucalyptus Avenue Westbound				Perris Boulevard Northbound				Eucalyptus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	**2**	0	**2**	0	0	0	0	0	**2**	0	**2**	0	0	0	0	**4**
04:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:15 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	**1**	0	**1**	4
Total Volume	0	6	0	6	0	0	0	0	0	4	0	4	0	1	0	1	11
% App. Total	0	100	0		0	0	0		0	100	0		0	100	0		
PHF	.000	.750	.000	.750	.000	.000	.000	.000	.000	.500	.000	.500	.000	.250	.000	.250	.688

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Eucalyptus Avenue
Weather: Clear

File Name : 01_MRV_Perris_Eucalyptus PM
Site Code : 00319397
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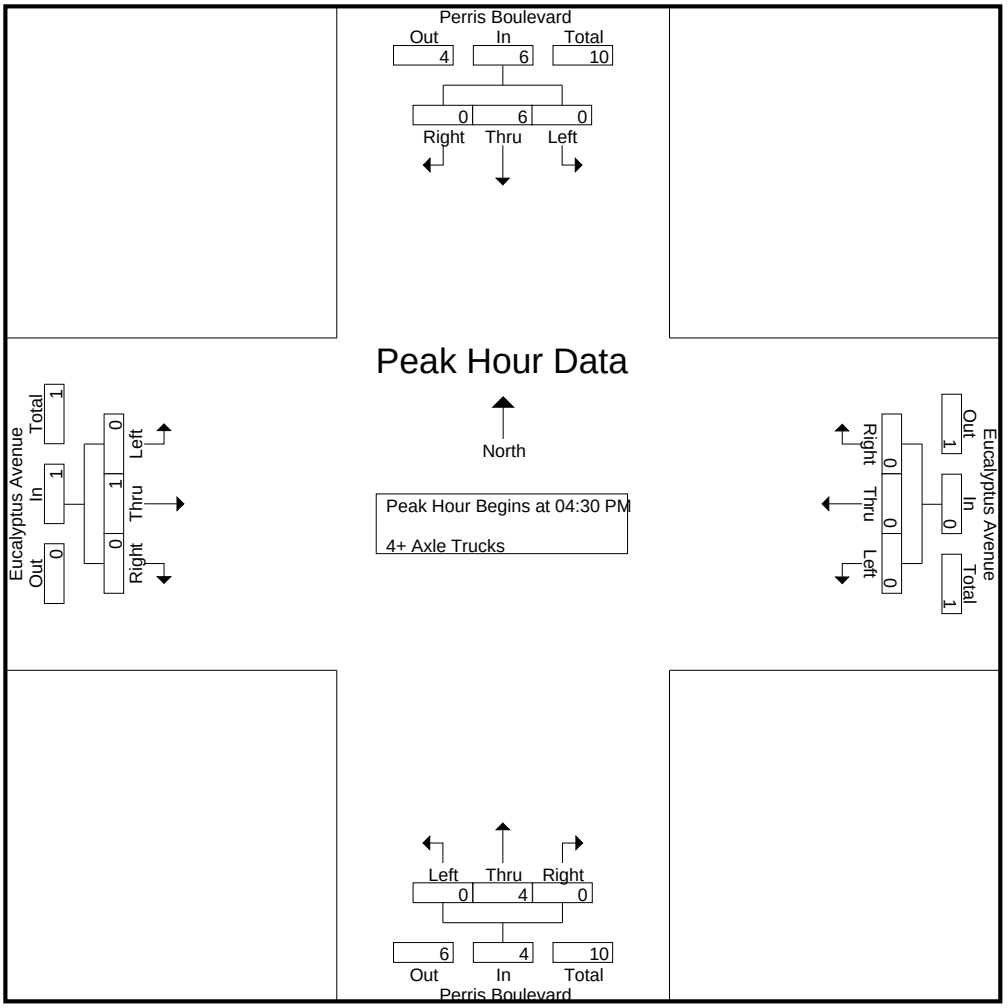

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	**2**	0	**2**	0	0	0	0	0	**2**	0	**2**	0	0	0	0
+15 mins.	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	2	0	2	0	0	0	0	0	1	0	1	0	**1**	0	**1**
Total Volume	0	6	0	6	0	0	0	0	0	4	0	4	0	1	0	1
% App. Total	0	100	0		0	0	0		0	100	0		0	100	0	
PHF	.000	.750	.000	.750	.000	.000	.000	.000	.000	.500	.000	.500	.000	.250	.000	.250

Location: Moreno Valley
N/S: Perris Boulevard
E/W: Eucalyptus Avenue

Date: 5/23/2019
Day: Thursday

PEDESTRIANS

	North Leg Perris Boulevard	East Leg Eucalyptus Avenue	South Leg Perris Boulevard	West Leg Eucalyptus Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	1	0	1	2
7:30 AM	1	0	0	0	1
7:45 AM	0	1	0	1	2
8:00 AM	0	2	2	0	4
8:15 AM	0	2	1	2	5
8:30 AM	0	0	0	1	1
8:45 AM	2	2	0	1	5
TOTAL VOLUMES:	3	8	3	6	20

	North Leg Perris Boulevard	East Leg Eucalyptus Avenue	South Leg Perris Boulevard	West Leg Eucalyptus Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	1	0	1	1	3
4:30 PM	0	1	0	2	3
4:45 PM	0	0	0	0	0
5:00 PM	0	0	1	1	2
5:15 PM	0	1	1	3	5
5:30 PM	1	0	0	1	2
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	2	2	3	8	15

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Location: Moreno Valley
N/S: Perris Boulevard
E/W: Eucalyptus Avenue

Date: 5/23/2019
Day: Thursday

BICYCLES

	Southbound Perris Boulevard			Westbound Eucalyptus Avenue			Northbound Perris Boulevard			Eastbound Eucalyptus Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	1	0	0	0	0	0	0	1	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	1	0	0	0	0	0	0	1	0	3

	Southbound Perris Boulevard			Westbound Eucalyptus Avenue			Northbound Perris Boulevard			Eastbound Eucalyptus Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
TOTAL VOLUMES:	0	3	0	0	0	0	0	3	0	0	0	0	6

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Atwood Avenue
Weather: Clear

File Name : 02_MRV_Perris_Atwood AM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 1

Groups Printed- Total Volume

	Perris Boulevard Southbound				Atwood Avenue Westbound				Perris Boulevard Northbound				Atwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	4	148	2	154	1	0	3	4	4	228	1	233	4	0	7	11	402
07:15 AM	1	250	2	253	1	0	5	6	8	210	0	218	4	0	3	7	484
07:30 AM	8	321	4	333	0	0	1	1	11	246	1	258	2	0	16	18	610
07:45 AM	5	332	5	342	1	0	2	3	18	306	0	324	3	1	13	17	686
Total	18	1051	13	1082	3	0	11	14	41	990	2	1033	13	1	39	53	2182
08:00 AM	2	195	5	202	2	2	1	5	15	271	2	288	4	0	5	9	504
08:15 AM	2	153	2	157	0	0	2	2	13	219	1	233	1	0	3	4	396
08:30 AM	2	116	4	122	1	1	2	4	6	209	0	215	1	1	0	2	343
08:45 AM	4	146	1	151	0	0	1	1	4	208	0	212	2	0	5	7	371
Total	10	610	12	632	3	3	6	12	38	907	3	948	8	1	13	22	1614
Grand Total	28	1661	25	1714	6	3	17	26	79	1897	5	1981	21	2	52	75	3796
Apprch %	1.6	96.9	1.5		23.1	11.5	65.4		4	95.8	0.3		28	2.7	69.3		
Total %	0.7	43.8	0.7	45.2	0.2	0.1	0.4	0.7	2.1	50	0.1	52.2	0.6	0.1	1.4	2	

	Perris Boulevard Southbound				Atwood Avenue Westbound				Perris Boulevard Northbound				Atwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	250	2	253	1	0	**5**	**6**	8	210	0	218	**4**	0	3	7	484
07:30 AM	**8**	321	4	333	0	0	1	1	11	246	1	258	2	0	**16**	**18**	610
07:45 AM	5	**332**	**5**	**342**	1	0	2	3	**18**	**306**	0	**324**	3	**1**	13	17	**686**
08:00 AM	2	195	5	202	**2**	**2**	1	5	15	271	**2**	288	4	0	5	9	504
Total Volume	16	1098	16	1130	4	2	9	15	52	1033	3	1088	13	1	37	51	2284
% App. Total	1.4	97.2	1.4		26.7	13.3	60		4.8	94.9	0.3		25.5	2	72.5		
PHF	.500	.827	.800	.826	.500	.250	.450	.625	.722	.844	.375	.840	.813	.250	.578	.708	.832

Counts Unlimited
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City of Moreno Valley
N/S: Perris Boulevard
E/W: Atwood Avenue
Weather: Clear

File Name : 02_MRV_Perris_Atwood AM
Site Code : 00319397
Start Date : 5/23/2019
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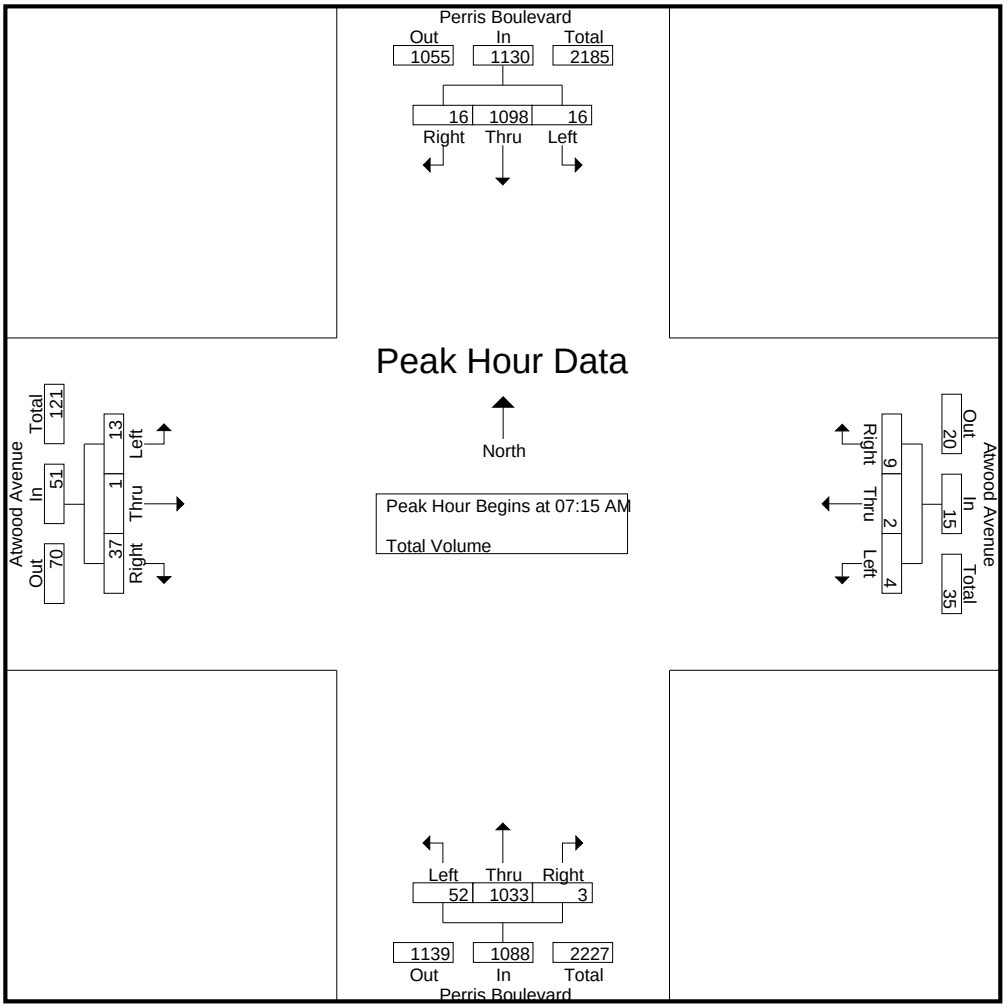

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:30 AM				07:00 AM			
+0 mins.	1	250	2	253	1	0	**5**	**6**	11	246	1	258	**4**	0	7	11
+15 mins.	**8**	321	4	333	0	0	1	1	**18**	**306**	0	**324**	4	0	3	7
+30 mins.	5	**332**	**5**	**342**	1	0	2	3	15	271	**2**	288	2	0	**16**	**18**
+45 mins.	2	195	5	202	**2**	**2**	1	5	13	219	1	233	3	**1**	13	17
Total Volume	16	1098	16	1130	4	2	9	15	57	1042	4	1103	13	1	39	53
% App. Total	1.4	97.2	1.4		26.7	13.3	60		5.2	94.5	0.4		24.5	1.9	73.6	
PHF	.500	.827	.800	.826	.500	.250	.450	.625	.792	.851	.500	.851	.813	.250	.609	.736

Counts Unlimited
PO Box 1178
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City of Moreno Valley
N/S: Perris Boulevard
E/W: Atwood Avenue
Weather: Clear

File Name : 02_MRV_Perris_Atwood PM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 1

Groups Printed- Total Volume

	Perris Boulevard Southbound				Atwood Avenue Westbound				Perris Boulevard Northbound				Atwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	13	270	3	286	1	0	7	8	10	247	1	258	9	0	9	18	570
04:15 PM	9	275	4	288	1	1	3	5	7	270	0	277	5	1	11	17	587
04:30 PM	8	288	5	301	0	0	0	0	12	266	0	278	7	0	10	17	596
04:45 PM	12	260	3	275	1	0	3	4	14	250	0	264	6	0	6	12	555
Total	42	1093	15	1150	3	1	13	17	43	1033	1	1077	27	1	36	64	2308
05:00 PM	12	281	5	298	0	0	2	2	4	243	1	248	4	0	6	10	558
05:15 PM	7	254	7	268	0	0	3	3	10	255	1	266	0	2	10	12	549
05:30 PM	10	274	8	292	1	1	3	5	11	221	1	233	7	1	14	22	552
05:45 PM	13	266	7	286	1	0	5	6	12	255	0	267	5	2	4	11	570
Total	42	1075	27	1144	2	1	13	16	37	974	3	1014	16	5	34	55	2229
Grand Total	84	2168	42	2294	5	2	26	33	80	2007	4	2091	43	6	70	119	4537
Apprch %	3.7	94.5	1.8		15.2	6.1	78.8		3.8	96	0.2		36.1	5	58.8		
Total %	1.9	47.8	0.9	50.6	0.1	0	0.6	0.7	1.8	44.2	0.1	46.1	0.9	0.1	1.5	2.6	

	Perris Boulevard Southbound				Atwood Avenue Westbound				Perris Boulevard Northbound				Atwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**13**	270	3	286	**1**	0	**7**	**8**	10	247	**1**	258	**9**	0	9	**18**	570
04:15 PM	9	275	4	288	1	**1**	3	5	7	**270**	0	277	5	**1**	**11**	17	587
04:30 PM	8	**288**	**5**	**301**	0	0	0	0	12	266	0	**278**	7	0	10	17	**596**
04:45 PM	12	260	3	275	1	0	3	4	**14**	250	0	264	6	0	6	12	555
Total Volume	42	1093	15	1150	3	1	13	17	43	1033	1	1077	27	1	36	64	2308
% App. Total	3.7	95	1.3		17.6	5.9	76.5		4	95.9	0.1		42.2	1.6	56.2		
PHF	.808	.949	.750	.955	.750	.250	.464	.531	.768	.956	.250	.969	.750	.250	.818	.889	.968

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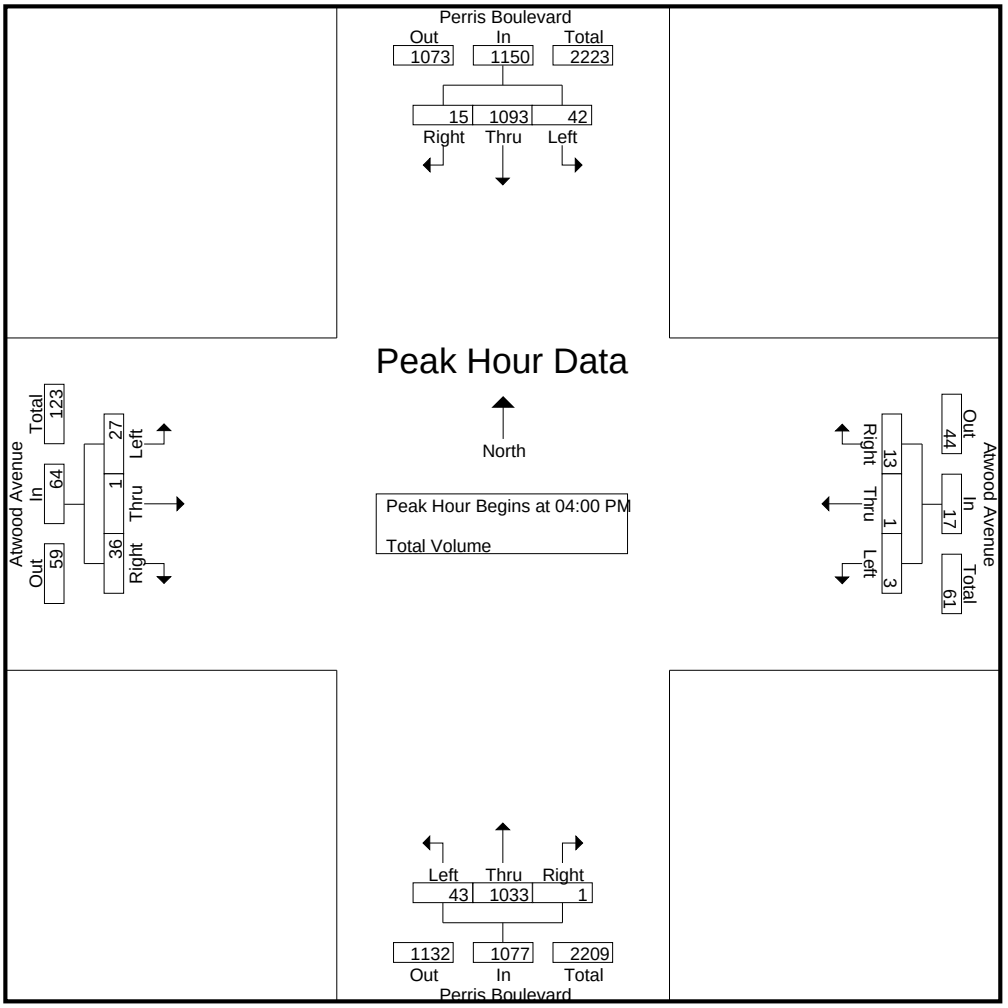
City of Moreno Valley
N/S: Perris Boulevard
E/W: Atwood Avenue
Weather: Clear

File Name : 02_MRV_Perris_Atwood PM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	9	275	4	288	**1**	0	**7**	**8**	10	247	**1**	258	**9**	0	9	**18**
+15 mins.	8	**288**	**5**	**301**	1	**1**	3	5	7	**270**	0	277	5	**1**	**11**	17
+30 mins.	**12**	260	3	275	0	0	0	0	12	266	0	**278**	7	0	10	17
+45 mins.	12	281	5	298	1	0	3	4	**14**	250	0	264	6	0	6	12
Total Volume	41	1104	17	1162	3	1	13	17	43	1033	1	1077	27	1	36	64
% App. Total	3.5	95	1.5		17.6	5.9	76.5		4	95.9	0.1		42.2	1.6	56.2	
PHF	.854	.958	.850	.965	.750	.250	.464	.531	.768	.956	.250	.969	.750	.250	.818	.889

Location: Moreno Valley
N/S: Perris Boulevard
E/W: Atwood Avenue

Date: 5/23/2019
Day: Thursday

PEDESTRIANS

	North Leg Perris Boulevard	East Leg Atwood Avenue	South Leg Perris Boulevard	West Leg Atwood Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	1	1
7:15 AM	0	0	0	2	2
7:30 AM	0	0	0	1	1
7:45 AM	1	0	0	2	3
8:00 AM	1	0	0	2	3
8:15 AM	0	1	0	5	6
8:30 AM	0	0	0	0	0
8:45 AM	0	1	0	1	2
TOTAL VOLUMES:	2	2	0	14	18

	North Leg Perris Boulevard	East Leg Atwood Avenue	South Leg Perris Boulevard	West Leg Atwood Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	1	1
4:30 PM	0	0	0	2	2
4:45 PM	0	0	0	1	1
5:00 PM	0	0	0	3	3
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	1	1
5:45 PM	0	0	0	1	1
TOTAL VOLUMES:	0	0	0	9	9

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Location: Moreno Valley
N/S: Perris Boulevard
E/W: Atwood Avenue

Date: 5/23/2019
Day: Thursday

BICYCLES

	Southbound Perris Boulevard			Westbound Atwood Avenue			Northbound Perris Boulevard			Eastbound Atwood Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	2	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
8:00 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
8:15 AM	0	3	0	0	0	0	0	0	0	0	0	0	3
8:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
TOTAL VOLUMES:	0	8	0	0	0	0	0	4	0	1	0	2	15

	Southbound Perris Boulevard			Westbound Atwood Avenue			Northbound Perris Boulevard			Eastbound Atwood Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
TOTAL VOLUMES:	0	0	0	0	0	0	0	1	0	0	0	1	2

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City of Moreno Valley
N/S: Perris Boulevard
E/W: J's Family Auto Center Driveway
Weather: Clear

File Name : 03_MRV_Perris_Js Fam Auto DW AM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 1

Groups Printed- Total Volume

	Perris Boulevard Southbound			Perris Boulevard Northbound			J's Family Auto Center Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	155	0	155	1	232	233	0	0	0	388
07:15 AM	259	0	259	0	220	220	0	0	0	479
07:30 AM	328	2	330	0	255	255	0	1	1	586
07:45 AM	336	5	341	0	325	325	0	0	0	666
Total	1078	7	1085	1	1032	1033	0	1	1	2119
08:00 AM	201	0	201	0	289	289	0	0	0	490
08:15 AM	160	1	161	0	240	240	0	1	1	402
08:30 AM	117	0	117	0	213	213	1	0	1	331
08:45 AM	155	2	157	0	212	212	0	1	1	370
Total	633	3	636	0	954	954	1	2	3	1593
Grand Total	1711	10	1721	1	1986	1987	1	3	4	3712
Apprch %	99.4	0.6		0.1	99.9		25	75		
Total %	46.1	0.3	46.4	0	53.5	53.5	0	0.1	0.1	

	Perris Boulevard Southbound			Perris Boulevard Northbound			J's Family Auto Center Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	259	0	259	0	220	220	0	0	0	479
07:30 AM	328	2	330	0	255	255	0	**1**	**1**	586
07:45 AM	**336**	**5**	**341**	0	**325**	**325**	0	0	0	**666**
08:00 AM	201	0	201	0	289	289	0	0	0	490
Total Volume	1124	7	1131	0	1089	1089	0	1	1	2221
% App. Total	99.4	0.6		0	100		0	100		
PHF	.836	.350	.829	.000	.838	.838	.000	.250	.250	.834

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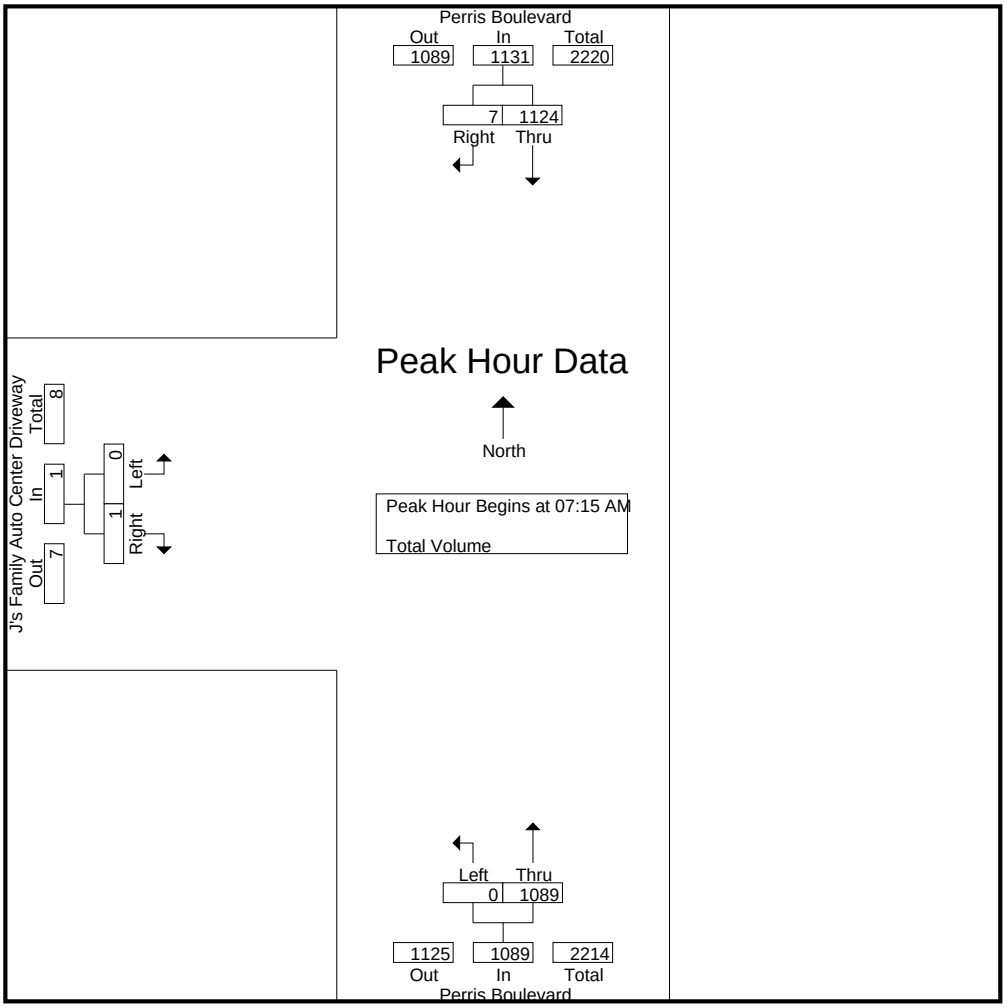
City of Moreno Valley
N/S: Perris Boulevard
E/W: J's Family Auto Center Driveway
Weather: Clear

File Name : 03_MRV_Perris_Js Fam Auto DW AM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:30 AM			08:00 AM		
+0 mins.	259	0	259	0	255	255	0	0	0
+15 mins.	328	2	330	0	**325**	**325**	0	**1**	**1**
+30 mins.	**336**	**5**	**341**	0	289	289	**1**	0	1
+45 mins.	201	0	201	0	240	240	0	1	1
Total Volume	1124	7	1131	0	1109	1109	1	2	3
% App. Total	99.4	0.6		0	100		33.3	66.7	
PHF	.836	.350	.829	.000	.853	.853	.250	.500	.750

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City of Moreno Valley
N/S: Perris Boulevard
E/W: J's Family Auto Center Driveway
Weather: Clear

File Name : 03_MRV_Perris_Js Fam Auto DW PM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 1

Groups Printed- Total Volume

	Perris Boulevard Southbound			Perris Boulevard Northbound			J's Family Auto Center Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	282	0	282	0	258	258	0	0	0	540
04:15 PM	278	0	278	0	278	278	0	0	0	556
04:30 PM	298	0	298	0	278	278	0	0	0	576
04:45 PM	265	2	267	0	264	264	0	0	0	531
Total	1123	2	1125	0	1078	1078	0	0	0	2203
05:00 PM	282	3	285	0	252	252	0	2	2	539
05:15 PM	265	0	265	0	267	267	0	0	0	532
05:30 PM	288	1	289	0	232	232	0	0	0	521
05:45 PM	273	0	273	0	269	269	0	0	0	542
Total	1108	4	1112	0	1020	1020	0	2	2	2134
Grand Total	2231	6	2237	0	2098	2098	0	2	2	4337
Apprch %	99.7	0.3		0	100		0	100		
Total %	51.4	0.1	51.6	0	48.4	48.4	0	0	0	

	Perris Boulevard Southbound			Perris Boulevard Northbound			J's Family Auto Center Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	282	0	282	0	258	258	0	0	0	540
04:15 PM	278	0	278	0	**278**	**278**	0	0	0	556
04:30 PM	**298**	0	**298**	0	278	278	0	0	0	**576**
04:45 PM	265	**2**	267	0	264	264	0	0	0	531
Total Volume	1123	2	1125	0	1078	1078	0	0	0	2203
% App. Total	99.8	0.2		0	100		0	0		
PHF	.942	.250	.944	.000	.969	.969	.000	.000	.000	.956

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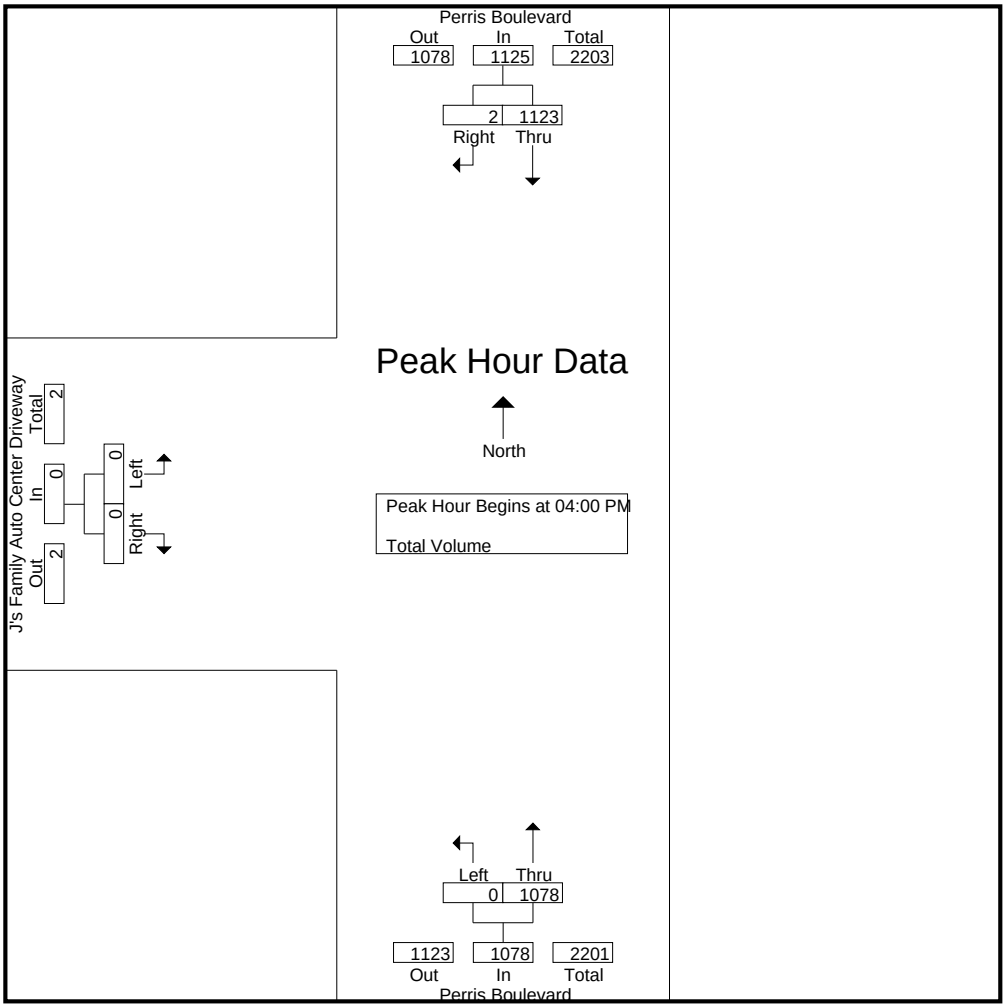
City of Moreno Valley
N/S: Perris Boulevard
E/W: J's Family Auto Center Driveway
Weather: Clear

File Name : 03_MRV_Perris_Js Fam Auto DW PM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:00 PM			04:15 PM		
+0 mins.	278	0	278	0	258	258	0	0	0
+15 mins.	**298**	0	**298**	0	**278**	**278**	0	0	0
+30 mins.	265	2	267	0	278	278	0	0	0
+45 mins.	282	**3**	285	0	264	264	0	**2**	**2**
Total Volume	1123	5	1128	0	1078	1078	0	2	2
% App. Total	99.6	0.4		0	100		0	100	
PHF	.942	.417	.946	.000	.969	.969	.000	.250	.250

Location: Moreno Valley
N/S: Perris Boulevard
E/W: J's Family Auto Center Driveway

Date: 5/23/2019
Day: Thursday

PEDESTRIANS

	North Leg Perris Boulevard	East Leg Dead End	South Leg Perris Boulevard	West Leg J's Fam Auto Ctr Driveway	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	2	2
7:15 AM	0	0	0	4	4
7:30 AM	0	0	0	1	1
7:45 AM	0	0	0	5	5
8:00 AM	0	0	0	1	1
8:15 AM	0	0	0	1	1
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	1	1
TOTAL VOLUMES:	0	0	0	15	15

	North Leg Perris Boulevard	East Leg Dead End	South Leg Perris Boulevard	West Leg J's Fam Auto Ctr Driveway	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	1	1
4:15 PM	0	0	0	1	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	1	1
5:00 PM	0	0	0	4	4
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	1	1
5:45 PM	0	0	0	1	1
TOTAL VOLUMES:	0	0	0	9	9

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Location: Moreno Valley
N/S: Perris Boulevard
E/W: J's Family Auto Center Driveway

Date: 5/23/2019
Day: Thursday

BICYCLES

	Southbound Perris Boulevard			Westbound Dead End			Northbound Perris Boulevard			Eastbound J's Fam Auto Ctr Driveway			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES:	0	2	0	0	0	0	0	1	0	0	0	0	3

	Southbound Perris Boulevard			Westbound Dead End			Northbound Perris Boulevard			Eastbound J's Fam Auto Ctr Driveway			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	2	0	0	0	0	0	1	0	0	0	0	3
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
5:00 PM	0	1	0	0	0	0	0	2	0	0	0	0	3
5:15 PM	0	2	1	0	0	0	0	0	0	1	0	0	4
5:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
TOTAL VOLUMES:	0	9	1	0	0	0	0	6	0	1	0	0	17

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Dracaea Avenue
Weather: Clear

File Name : 04_MRV_Perris_Dracaea AM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Perris Boulevard Southbound				Dracaea Avenue Westbound				Perris Boulevard Northbound				Dracaea Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	4	143	8	155	8	15	12	35	3	210	3	216	9	5	4	18	424
07:15 AM	3	229	13	245	12	17	14	43	5	196	4	205	9	19	5	33	526
07:30 AM	13	303	26	342	14	25	22	61	10	230	5	245	17	14	9	40	688
07:45 AM	7	310	26	343	18	24	14	56	20	291	3	314	20	18	20	58	771
Total	27	985	73	1085	52	81	62	195	38	927	15	980	55	56	38	149	2409
08:00 AM	10	169	20	199	25	30	14	69	13	255	7	275	17	18	17	52	595
08:15 AM	6	142	10	158	10	24	14	48	9	207	2	218	20	16	6	42	466
08:30 AM	9	90	9	108	4	11	11	26	8	192	5	205	9	12	6	27	366
08:45 AM	4	144	10	158	7	14	12	33	3	190	4	197	10	8	3	21	409
Total	29	545	49	623	46	79	51	176	33	844	18	895	56	54	32	142	1836
Grand Total	56	1530	122	1708	98	160	113	371	71	1771	33	1875	111	110	70	291	4245
Apprch %	3.3	89.6	7.1		26.4	43.1	30.5		3.8	94.5	1.8		38.1	37.8	24.1		
Total %	1.3	36	2.9	40.2	2.3	3.8	2.7	8.7	1.7	41.7	0.8	44.2	2.6	2.6	1.6	6.9	
Passenger Vehicles	54	1449	121	1624	93	159	110	362	67	1694	32	1793	106	106	68	280	4059
% Passenger Vehicles	96.4	94.7	99.2	95.1	94.9	99.4	97.3	97.6	94.4	95.7	97	95.6	95.5	96.4	97.1	96.2	95.6
Large 2 Axle Vehicles	2	65	1	68	5	1	1	7	3	46	1	50	3	4	2	9	134
% Large 2 Axle Vehicles	3.6	4.2	0.8	4	5.1	0.6	0.9	1.9	4.2	2.6	3	2.7	2.7	3.6	2.9	3.1	3.2
3 Axle Vehicles	0	2	0	2	0	0	2	2	1	2	0	3	0	0	0	0	7
% 3 Axle Vehicles	0	0.1	0	0.1	0	0	1.8	0.5	1.4	0.1	0	0.2	0	0	0	0	0.2
4+ Axle Trucks	0	14	0	14	0	0	0	0	0	29	0	29	2	0	0	2	45
% 4+ Axle Trucks	0	0.9	0	0.8	0	0	0	0	0	1.6	0	1.5	1.8	0	0	0.7	1.1

	Perris Boulevard Southbound				Dracaea Avenue Westbound				Perris Boulevard Northbound				Dracaea Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	3	229	13	245	12	17	14	43	5	196	4	205	9	**19**	5	33	526
07:30 AM	**13**	303	**26**	342	14	25	**22**	61	10	230	5	245	17	14	9	40	688
07:45 AM	7	**310**	26	**343**	18	24	14	56	**20**	**291**	3	**314**	**20**	18	**20**	**58**	**771**
08:00 AM	10	169	20	199	**25**	**30**	14	**69**	13	255	**7**	275	17	18	17	52	595
Total Volume	33	1011	85	1129	69	96	64	229	48	972	19	1039	63	69	51	183	2580
% App. Total	2.9	89.5	7.5		30.1	41.9	27.9		4.6	93.6	1.8		34.4	37.7	27.9		
PHF	.635	.815	.817	.823	.690	.800	.727	.830	.600	.835	.679	.827	.788	.908	.638	.789	.837

Counts Unlimited
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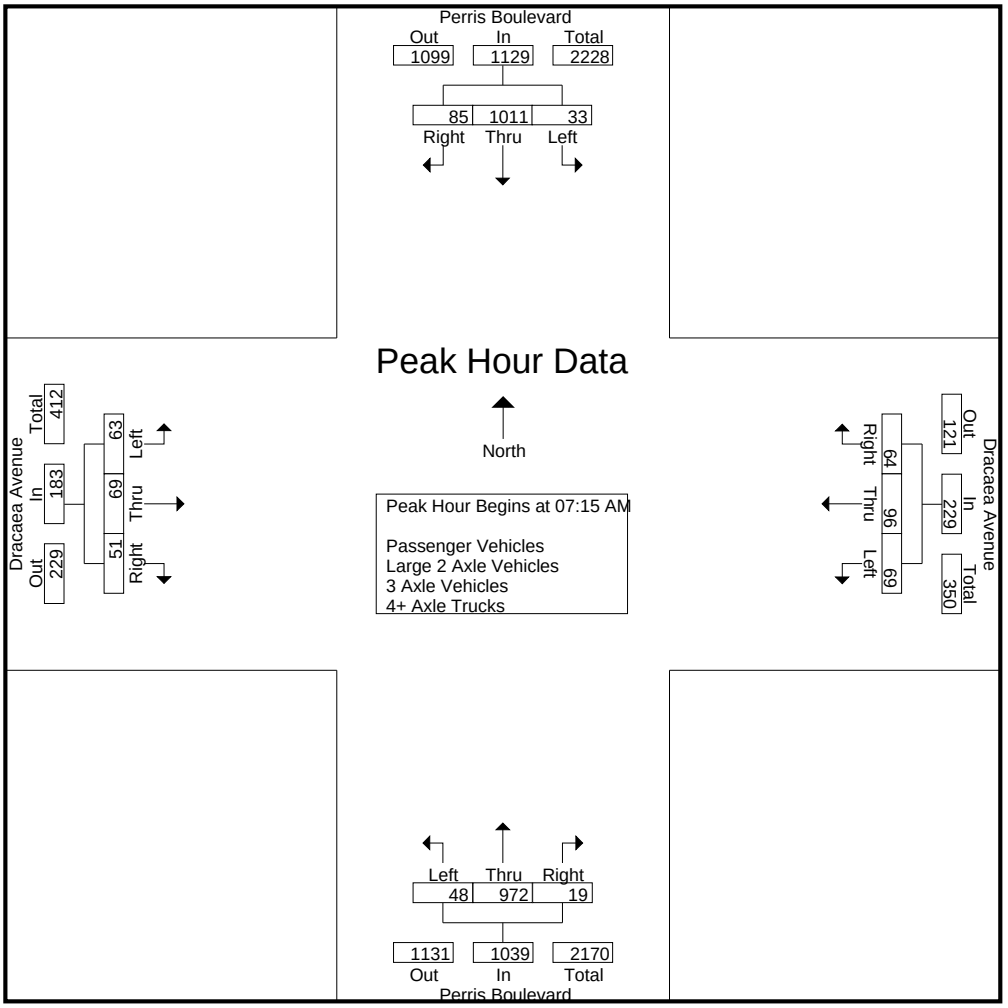
City of Moreno Valley
N/S: Perris Boulevard
E/W: Dracaea Avenue
Weather: Clear

File Name : 04_MRV_Perris_Dracaea AM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	3	229	13	245	14	25	**22**	61	10	230	5	245	17	14	9	40
+15 mins.	**13**	303	**26**	342	18	24	14	56	**20**	**291**	3	**314**	**20**	**18**	**20**	**58**
+30 mins.	7	**310**	26	**343**	**25**	**30**	14	**69**	13	255	**7**	275	17	18	17	52
+45 mins.	10	169	20	199	10	24	14	48	9	207	2	218	20	16	6	42
Total Volume	33	1011	85	1129	67	103	64	234	52	983	17	1052	74	66	52	192
% App. Total	2.9	89.5	7.5		28.6	44	27.4		4.9	93.4	1.6		38.5	34.4	27.1	
PHF	.635	.815	.817	.823	.670	.858	.727	.848	.650	.845	.607	.838	.925	.917	.650	.828

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Dracaea Avenue
Weather: Clear

File Name : 04_MRV_Perris_Dracaea AM
Site Code : 00319397
Start Date : 5/23/2019
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Groups Printed- Passenger Vehicles

	Perris Boulevard Southbound				Dracaea Avenue Westbound				Perris Boulevard Northbound				Dracaea Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	4	136	8	148	7	14	12	33	2	198	3	203	9	5	4	18	402
07:15 AM	3	222	13	238	12	17	13	42	4	192	3	199	8	16	4	28	507
07:30 AM	13	295	26	334	14	25	20	59	10	218	5	233	17	14	8	39	665
07:45 AM	7	300	25	332	18	24	14	56	19	280	3	302	20	18	20	58	748
Total	27	953	72	1052	51	80	59	190	35	888	14	937	54	53	36	143	2322
08:00 AM	10	161	20	191	23	30	14	67	13	248	7	268	17	18	17	52	578
08:15 AM	5	123	10	138	10	24	14	48	8	194	2	204	19	15	6	40	430
08:30 AM	8	80	9	97	4	11	11	26	8	185	5	198	8	12	6	26	347
08:45 AM	4	132	10	146	5	14	12	31	3	179	4	186	8	8	3	19	382
Total	27	496	49	572	42	79	51	172	32	806	18	856	52	53	32	137	1737
Grand Total	54	1449	121	1624	93	159	110	362	67	1694	32	1793	106	106	68	280	4059
Apprch %	3.3	89.2	7.5		25.7	43.9	30.4		3.7	94.5	1.8		37.9	37.9	24.3		
Total %	1.3	35.7	3	40	2.3	3.9	2.7	8.9	1.7	41.7	0.8	44.2	2.6	2.6	1.7	6.9	

	Perris Boulevard Southbound				Dracaea Avenue Westbound				Perris Boulevard Northbound				Dracaea Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	3	222	13	238	12	17	13	42	4	192	3	199	8	16	4	28	507
07:30 AM	**13**	295	**26**	**334**	14	25	**20**	59	10	218	5	233	17	14	8	39	665
07:45 AM	7	**300**	25	332	18	24	14	56	**19**	**280**	3	**302**	**20**	**18**	**20**	**58**	**748**
08:00 AM	10	161	20	191	**23**	**30**	14	**67**	13	248	**7**	268	17	18	17	52	578
Total Volume	33	978	84	1095	67	96	61	224	46	938	18	1002	62	66	49	177	2498
% App. Total	3	89.3	7.7		29.9	42.9	27.2		4.6	93.6	1.8		35	37.3	27.7		
PHF	.635	.815	.808	.820	.728	.800	.763	.836	.605	.838	.643	.829	.775	.917	.613	.763	.835

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City of Moreno Valley
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E/W: Dracaea Avenue
Weather: Clear

File Name : 04_MRV_Perris_Dracaea AM
Site Code : 00319397
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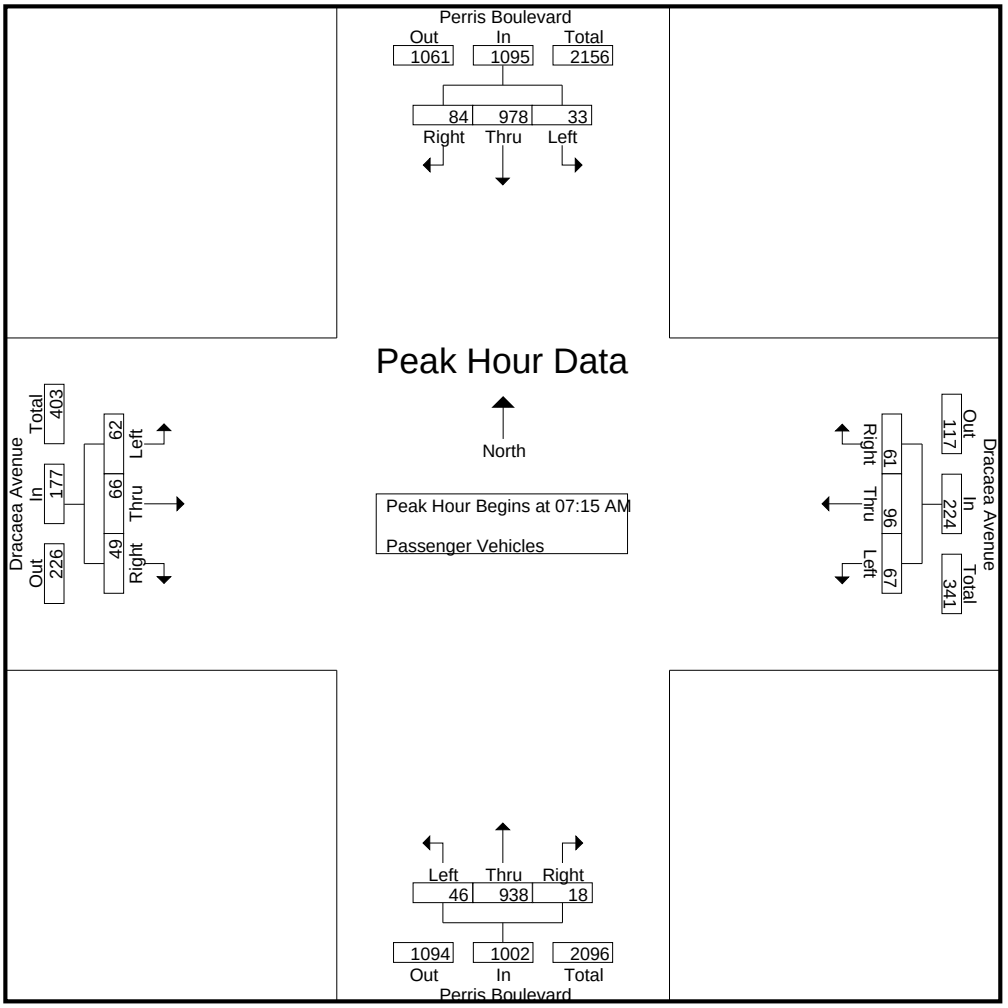

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	3	222	13	238	12	17	13	42	4	192	3	199	8	16	4	28
+15 mins.	**13**	295	**26**	**334**	14	25	**20**	59	10	218	5	233	17	14	8	39
+30 mins.	7	**300**	25	332	18	24	14	56	**19**	**280**	3	**302**	**20**	**18**	**20**	**58**
+45 mins.	10	161	20	191	**23**	**30**	14	**67**	13	248	**7**	268	17	18	17	52
Total Volume	33	978	84	1095	67	96	61	224	46	938	18	1002	62	66	49	177
% App. Total	3	89.3	7.7		29.9	42.9	27.2		4.6	93.6	1.8		35	37.3	27.7	
PHF	.635	.815	.808	.820	.728	.800	.763	.836	.605	.838	.643	.829	.775	.917	.613	.763

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Dracaea Avenue
Weather: Clear

File Name : 04_MRV_Perris_Dracaea AM
Site Code : 00319397
Start Date : 5/23/2019
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Groups Printed- Large 2 Axle Vehicles

	Perris Boulevard Southbound				Dracaea Avenue Westbound				Perris Boulevard Northbound				Dracaea Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	6	0	6	1	1	0	2	1	7	0	8	0	0	0	0	16
07:15 AM	0	7	0	7	0	0	0	0	0	1	1	2	1	3	1	5	14
07:30 AM	0	6	0	6	0	0	1	1	0	9	0	9	0	0	1	1	17
07:45 AM	0	8	1	9	0	0	0	0	1	8	0	9	0	0	0	0	18
Total	0	27	1	28	1	1	1	3	2	25	1	28	1	3	2	6	65
08:00 AM	0	4	0	4	2	0	0	2	0	4	0	4	0	0	0	0	10
08:15 AM	1	15	0	16	0	0	0	0	1	6	0	7	0	1	0	1	24
08:30 AM	1	10	0	11	0	0	0	0	0	4	0	4	1	0	0	1	16
08:45 AM	0	9	0	9	2	0	0	2	0	7	0	7	1	0	0	1	19
Total	2	38	0	40	4	0	0	4	1	21	0	22	2	1	0	3	69
Grand Total	2	65	1	68	5	1	1	7	3	46	1	50	3	4	2	9	134
Apprch %	2.9	95.6	1.5		71.4	14.3	14.3		6	92	2		33.3	44.4	22.2		
Total %	1.5	48.5	0.7	50.7	3.7	0.7	0.7	5.2	2.2	34.3	0.7	37.3	2.2	3	1.5	6.7	

	Perris Boulevard Southbound				Dracaea Avenue Westbound				Perris Boulevard Northbound				Dracaea Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	7	0	7	0	0	0	0	0	1	**1**	2	**1**	**3**	**1**	**5**	14
07:30 AM	0	6	0	6	0	0	**1**	1	0	**9**	0	**9**	0	0	1	1	17
07:45 AM	0	**8**	**1**	**9**	0	0	0	0	**1**	8	0	9	0	0	0	0	**18**
08:00 AM	0	4	0	4	**2**	0	0	**2**	0	4	0	4	0	0	0	0	10
Total Volume	0	25	1	26	2	0	1	3	1	22	1	24	1	3	2	6	59
% App. Total	0	96.2	3.8		66.7	0	33.3		4.2	91.7	4.2		16.7	50	33.3		
PHF	.000	.781	.250	.722	.250	.000	.250	.375	.250	.611	.250	.667	.250	.250	.500	.300	.819

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City of Moreno Valley
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E/W: Dracaea Avenue
Weather: Clear

File Name : 04_MRV_Perris_Dracaea AM
Site Code : 00319397
Start Date : 5/23/2019
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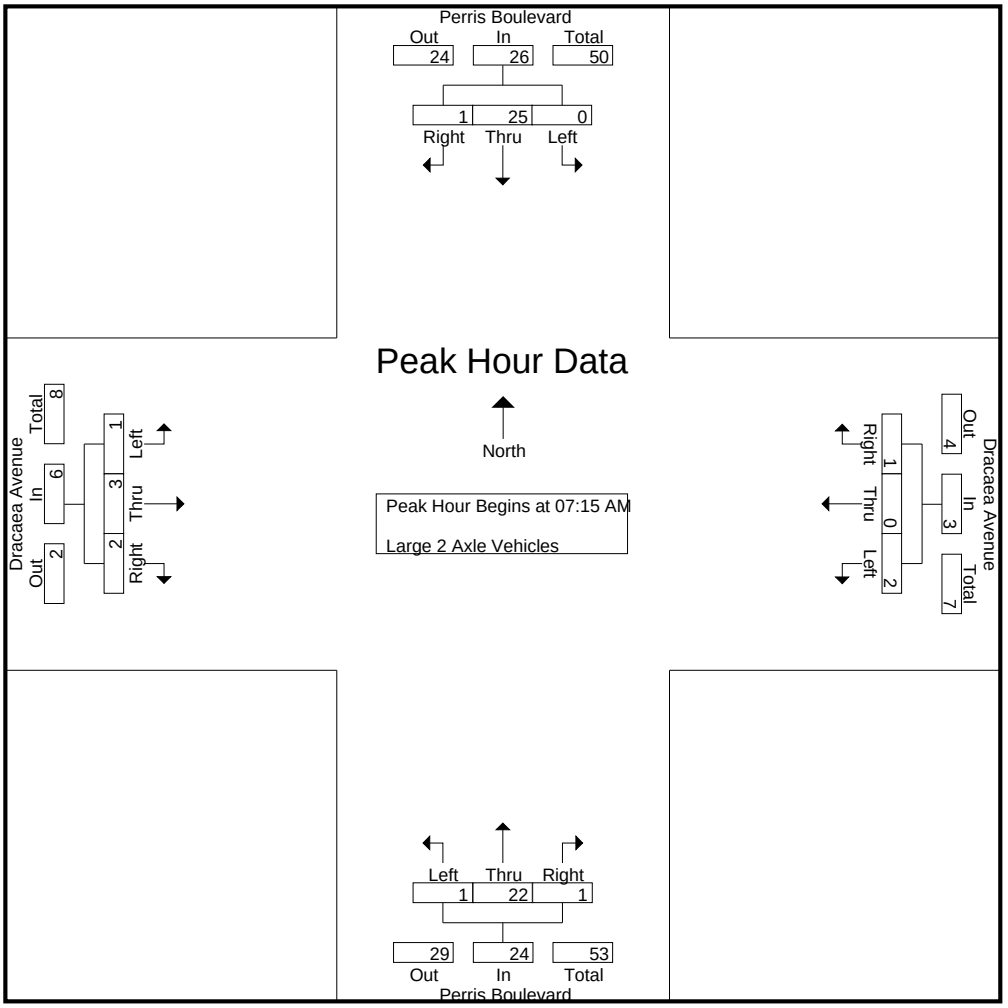

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	7	0	7	0	0	0	0	0	1	**1**	2	**1**	**3**	**1**	**5**
+15 mins.	0	6	0	6	0	0	**1**	1	0	**9**	0	**9**	0	0	1	1
+30 mins.	0	**8**	**1**	**9**	0	0	0	0	**1**	8	0	9	0	0	0	0
+45 mins.	0	4	0	4	**2**	0	0	**2**	0	4	0	4	0	0	0	0
Total Volume	0	25	1	26	2	0	1	3	1	22	1	24	1	3	2	6
% App. Total	0	96.2	3.8		66.7	0	33.3		4.2	91.7	4.2		16.7	50	33.3	
PHF	.000	.781	.250	.722	.250	.000	.250	.375	.250	.611	.250	.667	.250	.250	.500	.300

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Dracaea Avenue
Weather: Clear

File Name : 04_MRV_Perris_Dracaea AM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Perris Boulevard Southbound				Dracaea Avenue Westbound				Perris Boulevard Northbound				Dracaea Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	1	1	1	1	0	2	0	0	0	0	3
07:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	0	0	2	2	1	2	0	3	0	0	0	0	6
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	2	0	2	0	0	2	2	1	2	0	3	0	0	0	0	7
Apprch %	0	100	0		0	0	100		33.3	66.7	0		0	0	0		
Total %	0	28.6	0	28.6	0	0	28.6	28.6	14.3	28.6	0	42.9	0	0	0	0	

	Perris Boulevard Southbound				Dracaea Avenue Westbound				Perris Boulevard Northbound				Dracaea Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	**1**	**1**	**1**	**1**	0	**2**	0	0	0	0	**3**
07:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
07:45 AM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	2	2	1	1	0	2	0	0	0	0	5
% App. Total	0	100	0		0	0	100		50	50	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.500	.500	.250	.250	.000	.250	.000	.000	.000	.000	.417

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Dracaea Avenue
Weather: Clear

File Name : 04_MRV_Perris_Dracaea AM
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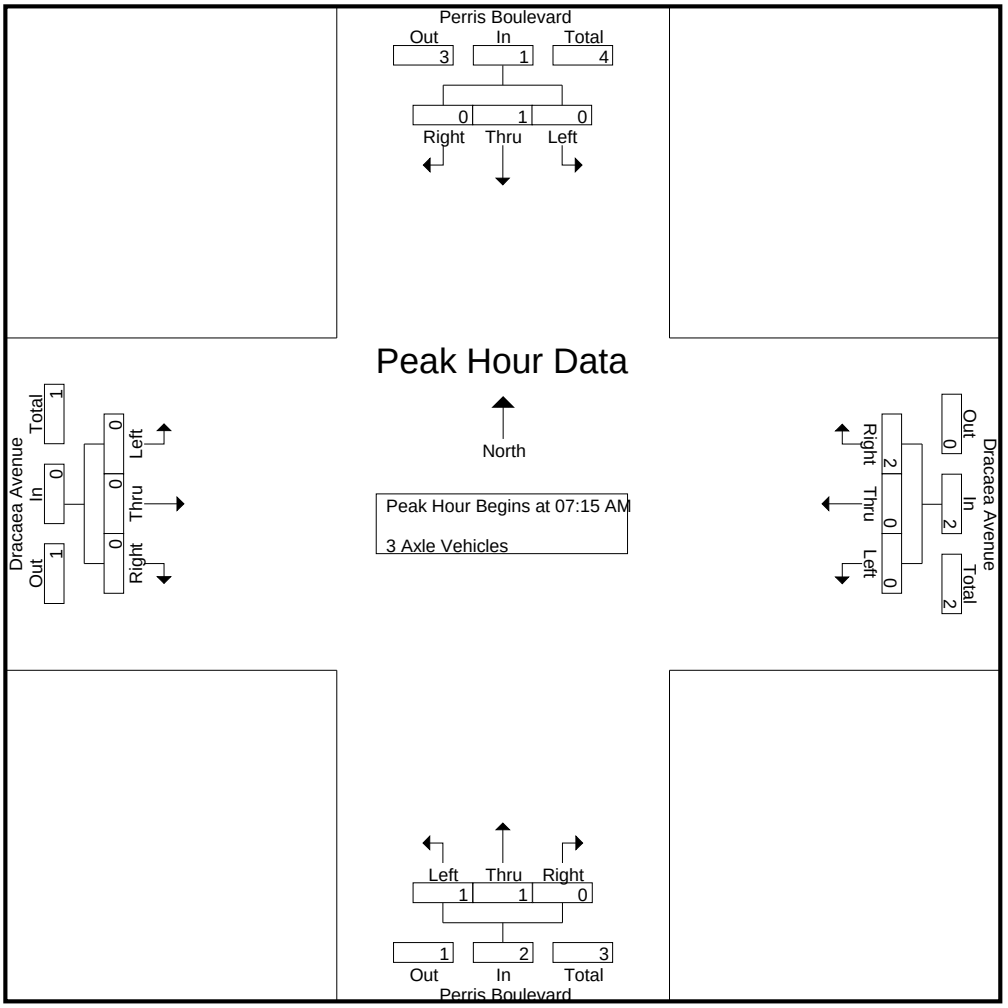

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	**1**	**1**	**1**	**1**	0	**2**	0	0	0	0
+15 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+30 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	2	2	1	1	0	2	0	0	0	0
% App. Total	0	100	0		0	0	100		50	50	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.500	.500	.250	.250	.000	.250	.000	.000	.000	.000

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City of Moreno Valley
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Weather: Clear

File Name : 04_MRV_Perris_Dracaea AM
Site Code : 00319397
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Groups Printed- 4+ Axle Trucks

	Perris Boulevard Southbound				Dracaea Avenue Westbound				Perris Boulevard Northbound				Dracaea Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	0	0	0	0	4	0	4	0	0	0	0	5
07:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
07:30 AM	0	2	0	2	0	0	0	0	0	3	0	3	0	0	0	0	5
07:45 AM	0	1	0	1	0	0	0	0	0	3	0	3	0	0	0	0	4
Total	0	4	0	4	0	0	0	0	0	12	0	12	0	0	0	0	16
08:00 AM	0	4	0	4	0	0	0	0	0	3	0	3	0	0	0	0	7
08:15 AM	0	3	0	3	0	0	0	0	0	7	0	7	1	0	0	1	11
08:30 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
08:45 AM	0	3	0	3	0	0	0	0	0	4	0	4	1	0	0	1	8
Total	0	10	0	10	0	0	0	0	0	17	0	17	2	0	0	2	29
Grand Total	0	14	0	14	0	0	0	0	0	29	0	29	2	0	0	2	45
Apprch %	0	100	0		0	0	0		0	100	0		100	0	0		
Total %	0	31.1	0	31.1	0	0	0	0	0	64.4	0	64.4	4.4	0	0	4.4	

	Perris Boulevard Southbound				Dracaea Avenue Westbound				Perris Boulevard Northbound				Dracaea Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
07:30 AM	0	2	0	2	0	0	0	0	0	**3**	0	**3**	0	0	0	0	5
07:45 AM	0	1	0	1	0	0	0	0	0	3	0	3	0	0	0	0	4
08:00 AM	0	**4**	0	**4**	0	0	0	0	0	3	0	3	0	0	0	0	**7**
Total Volume	0	7	0	7	0	0	0	0	0	11	0	11	0	0	0	0	18
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.438	.000	.438	.000	.000	.000	.000	.000	.917	.000	.917	.000	.000	.000	.000	.643

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Dracaea Avenue
Weather: Clear

File Name : 04_MRV_Perris_Dracaea AM
Site Code : 00319397
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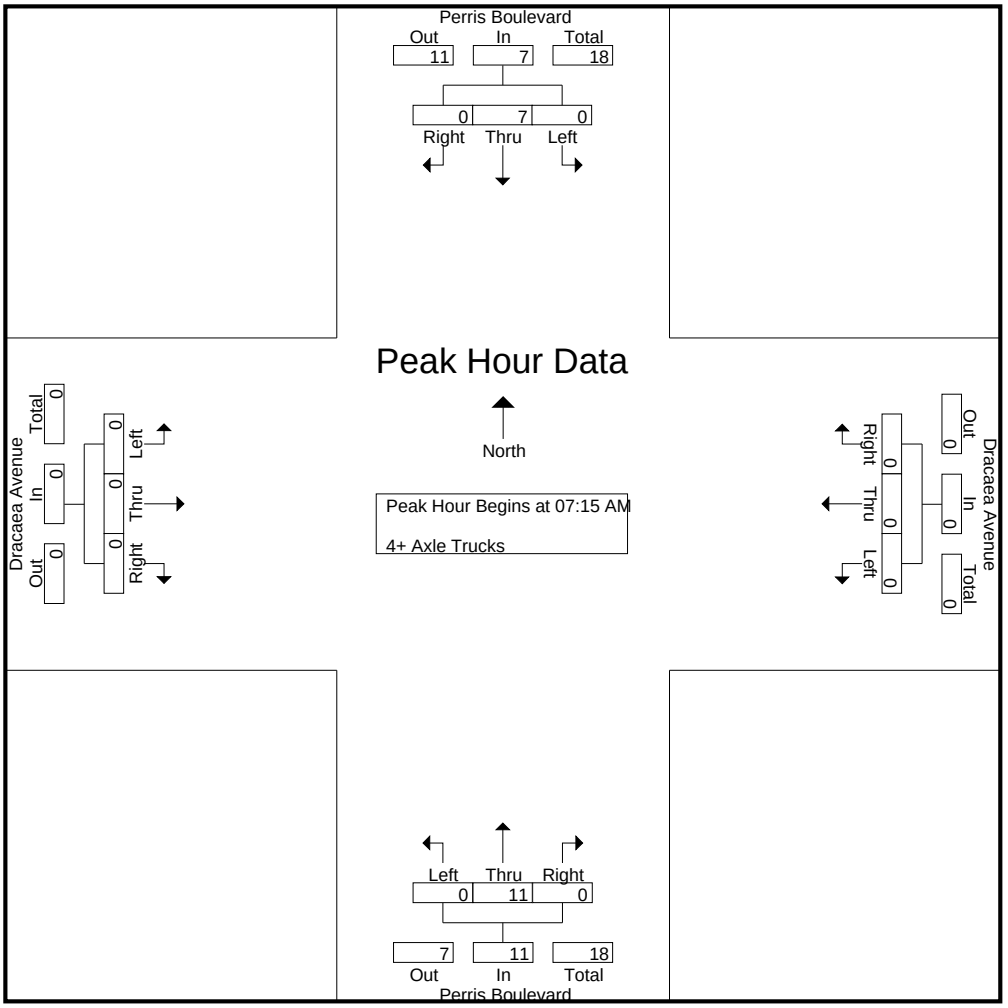

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0
+15 mins.	0	2	0	2	0	0	0	0	0	**3**	0	**3**	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	3	0	3	0	0	0	0
+45 mins.	0	**4**	0	**4**	0	0	0	0	0	3	0	3	0	0	0	0
Total Volume	0	7	0	7	0	0	0	0	0	11	0	11	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.438	.000	.438	.000	.000	.000	.000	.000	.917	.000	.917	.000	.000	.000	.000

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Perris Boulevard Southbound				Dracaea Avenue Westbound				Perris Boulevard Northbound				Dracaea Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	11	254	19	284	8	14	14	36	3	225	11	239	17	23	10	50	609
04:15 PM	9	254	14	277	7	22	9	38	7	262	9	278	10	24	3	37	630
04:30 PM	12	264	19	295	6	19	10	35	8	245	8	261	21	27	8	56	647
04:45 PM	16	227	21	264	9	17	15	41	9	232	7	248	20	20	7	47	600
Total	48	999	73	1120	30	72	48	150	27	964	35	1026	68	94	28	190	2486
05:00 PM	9	262	14	285	9	15	13	37	5	226	11	242	18	30	4	52	616
05:15 PM	14	244	17	275	10	14	12	36	5	239	16	260	16	18	7	41	612
05:30 PM	14	255	23	292	5	21	13	39	10	205	12	227	13	26	8	47	605
05:45 PM	15	243	16	274	3	21	12	36	10	242	4	256	21	19	12	52	618
Total	52	1004	70	1126	27	71	50	148	30	912	43	985	68	93	31	192	2451
Grand Total	100	2003	143	2246	57	143	98	298	57	1876	78	2011	136	187	59	382	4937
Apprch %	4.5	89.2	6.4		19.1	48	32.9		2.8	93.3	3.9		35.6	49	15.4		
Total %	2	40.6	2.9	45.5	1.2	2.9	2	6	1.2	38	1.6	40.7	2.8	3.8	1.2	7.7	
Passenger Vehicles	99	1944	143	2186	55	143	97	295	57	1831	77	1965	135	186	59	380	4826
% Passenger Vehicles	99	97.1	100	97.3	96.5	100	99	99	100	97.6	98.7	97.7	99.3	99.5	100	99.5	97.8
Large 2 Axle Vehicles	1	38	0	39	1	0	0	1	0	32	1	33	1	1	0	2	75
% Large 2 Axle Vehicles	1	1.9	0	1.7	1.8	0	0	0.3	0	1.7	1.3	1.6	0.7	0.5	0	0.5	1.5
3 Axle Vehicles	0	5	0	5	1	0	1	2	0	2	0	2	0	0	0	0	9
% 3 Axle Vehicles	0	0.2	0	0.2	1.8	0	1	0.7	0	0.1	0	0.1	0	0	0	0	0.2
4+ Axle Trucks	0	16	0	16	0	0	0	0	0	11	0	11	0	0	0	0	27
% 4+ Axle Trucks	0	0.8	0	0.7	0	0	0	0	0	0.6	0	0.5	0	0	0	0	0.5

	Perris Boulevard Southbound				Dracaea Avenue Westbound				Perris Boulevard Northbound				Dracaea Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	9	254	14	277	7	**22**	9	38	7	**262**	9	**278**	10	24	3	37	630
04:30 PM	12	**264**	19	**295**	6	19	10	35	8	245	8	261	**21**	27	**8**	**56**	**647**
04:45 PM	**16**	227	**21**	264	**9**	17	**15**	**41**	**9**	232	7	248	20	20	7	47	600
05:00 PM	9	262	14	285	9	15	13	37	5	226	**11**	242	18	**30**	4	52	616
Total Volume	46	1007	68	1121	31	73	47	151	29	965	35	1029	69	101	22	192	2493
% App. Total	4.1	89.8	6.1		20.5	48.3	31.1		2.8	93.8	3.4		35.9	52.6	11.5		
PHF	.719	.954	.810	.950	.861	.830	.783	.921	.806	.921	.795	.925	.821	.842	.688	.857	.963

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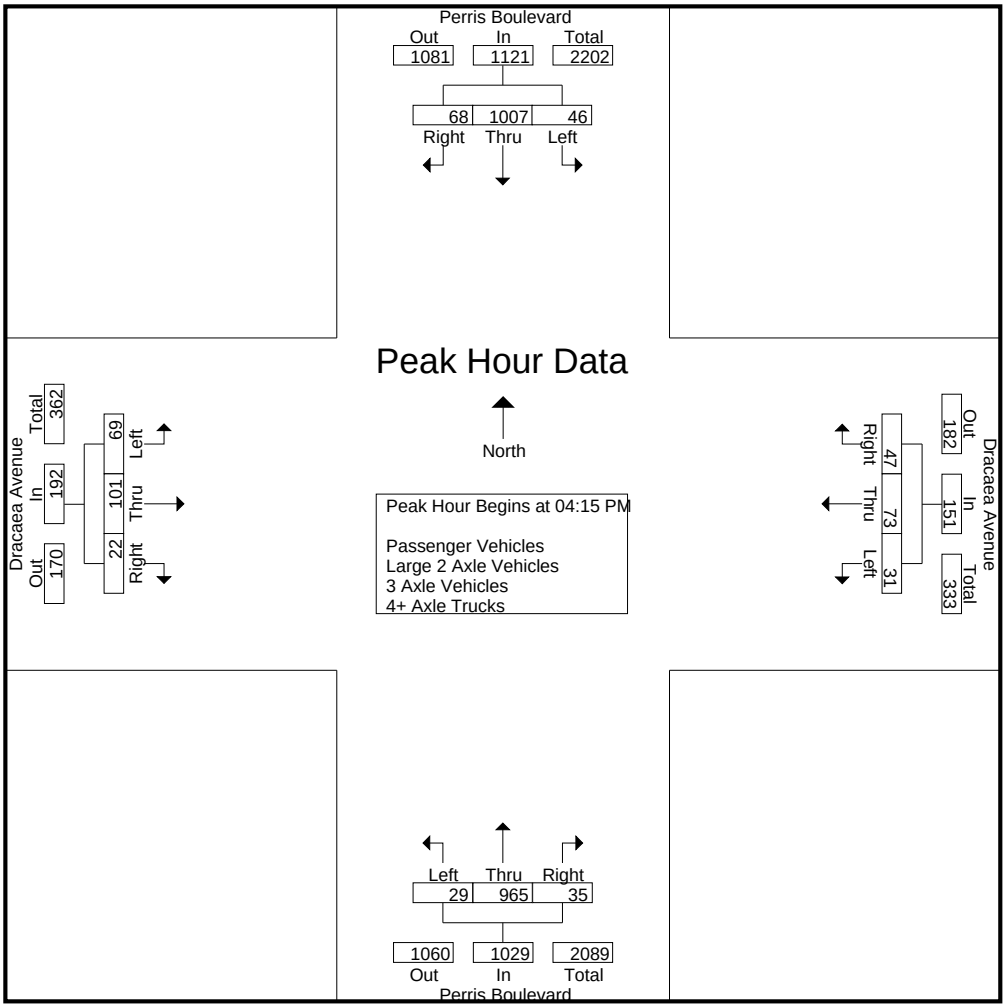

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:45 PM				04:15 PM				04:30 PM			
+0 mins.	9	**262**	14	285	9	17	**15**	**41**	7	**262**	9	**278**	**21**	27	**8**	**56**
+15 mins.	14	244	17	275	9	15	13	37	8	245	8	261	20	20	7	47
+30 mins.	14	255	**23**	**292**	**10**	14	12	36	**9**	232	7	248	18	**30**	4	52
+45 mins.	**15**	243	16	274	5	**21**	13	39	5	226	**11**	242	16	18	7	41
Total Volume	52	1004	70	1126	33	67	53	153	29	965	35	1029	75	95	26	196
% App. Total	4.6	89.2	6.2		21.6	43.8	34.6		2.8	93.8	3.4		38.3	48.5	13.3	
PHF	.867	.958	.761	.964	.825	.798	.883	.933	.806	.921	.795	.925	.893	.792	.813	.875

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Groups Printed- Passenger Vehicles

	Perris Boulevard Southbound				Dracaea Avenue Westbound				Perris Boulevard Northbound				Dracaea Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	11	243	19	273	8	14	14	36	3	213	11	227	17	23	10	50	586
04:15 PM	9	240	14	263	7	22	9	38	7	257	8	272	10	24	3	37	610
04:30 PM	11	256	19	286	5	19	10	34	8	242	8	258	21	27	8	56	634
04:45 PM	16	221	21	258	9	17	15	41	9	227	7	243	20	20	7	47	589
Total	47	960	73	1080	29	72	48	149	27	939	34	1000	68	94	28	190	2419
05:00 PM	9	256	14	279	9	15	13	37	5	219	11	235	18	29	4	51	602
05:15 PM	14	238	17	269	9	14	11	34	5	236	16	257	16	18	7	41	601
05:30 PM	14	251	23	288	5	21	13	39	10	203	12	225	13	26	8	47	599
05:45 PM	15	239	16	270	3	21	12	36	10	234	4	248	20	19	12	51	605
Total	52	984	70	1106	26	71	49	146	30	892	43	965	67	92	31	190	2407
Grand Total	99	1944	143	2186	55	143	97	295	57	1831	77	1965	135	186	59	380	4826
Apprch %	4.5	88.9	6.5		18.6	48.5	32.9		2.9	93.2	3.9		35.5	48.9	15.5		
Total %	2.1	40.3	3	45.3	1.1	3	2	6.1	1.2	37.9	1.6	40.7	2.8	3.9	1.2	7.9	

	Perris Boulevard Southbound				Dracaea Avenue Westbound				Perris Boulevard Northbound				Dracaea Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	9	240	14	263	7	**22**	9	38	7	**257**	8	**272**	10	24	3	37	610
04:30 PM	11	**256**	19	**286**	5	19	10	34	8	242	8	258	**21**	27	**8**	**56**	**634**
04:45 PM	**16**	221	**21**	258	**9**	17	**15**	**41**	**9**	227	7	243	20	20	7	47	589
05:00 PM	9	256	14	279	9	15	13	37	5	219	**11**	235	18	**29**	4	51	602
Total Volume	45	973	68	1086	30	73	47	150	29	945	34	1008	69	100	22	191	2435
% App. Total	4.1	89.6	6.3		20	48.7	31.3		2.9	93.8	3.4		36.1	52.4	11.5		
PHF	.703	.950	.810	.949	.833	.830	.783	.915	.806	.919	.773	.926	.821	.862	.688	.853	.960

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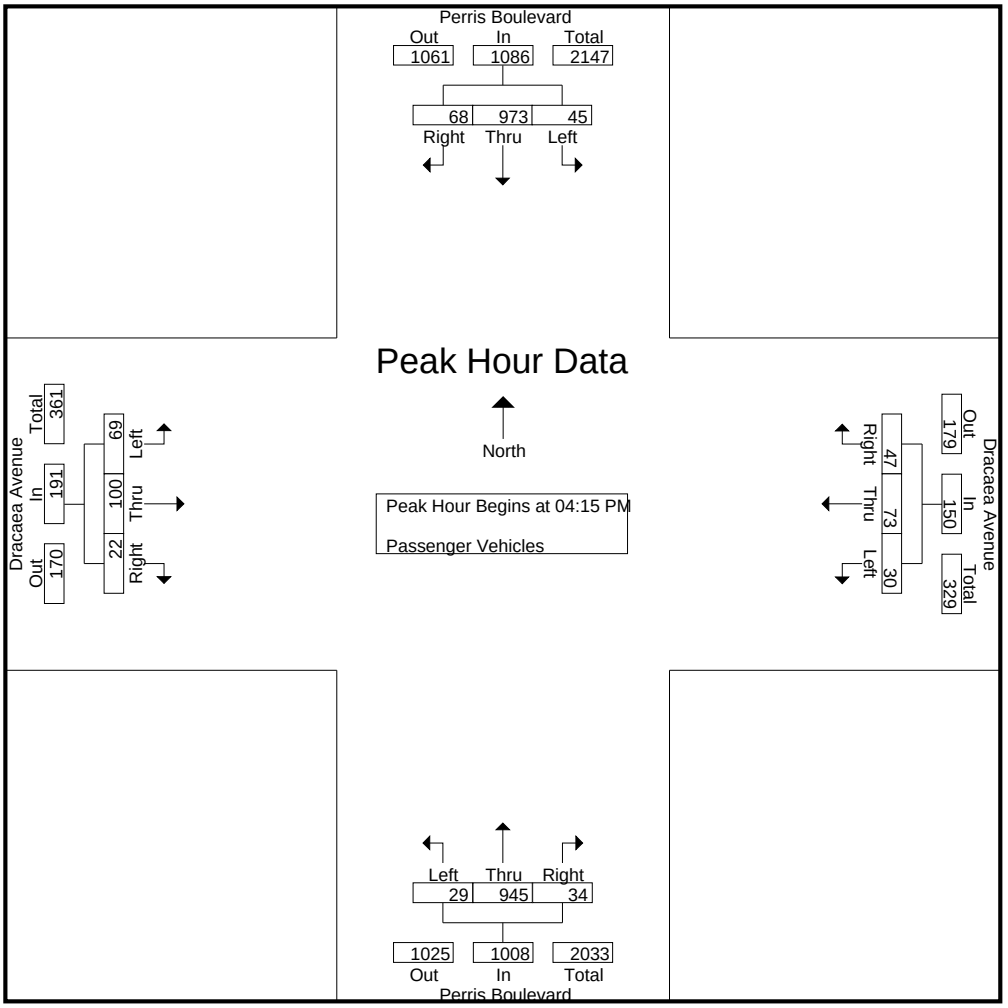

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+0 mins.	9	240	14	263	7	**22**	9	38	7	**257**	8	**272**	10	24	3	37
+15 mins.	11	**256**	19	**286**	5	19	10	34	8	242	8	258	**21**	27	**8**	**56**
+30 mins.	**16**	221	**21**	258	**9**	17	**15**	**41**	**9**	227	7	243	20	20	7	47
+45 mins.	9	256	14	279	9	15	13	37	5	219	**11**	235	18	**29**	4	51
Total Volume	45	973	68	1086	30	73	47	150	29	945	34	1008	69	100	22	191
% App. Total	4.1	89.6	6.3		20	48.7	31.3		2.9	93.8	3.4		36.1	52.4	11.5	
PHF	.703	.950	.810	.949	.833	.830	.783	.915	.806	.919	.773	.926	.821	.862	.688	.853

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Groups Printed- Large 2 Axle Vehicles

	Perris Boulevard Southbound				Dracaea Avenue Westbound				Perris Boulevard Northbound				Dracaea Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	8	0	8	0	0	0	0	0	9	0	9	0	0	0	0	17
04:15 PM	0	7	0	7	0	0	0	0	0	3	1	4	0	0	0	0	11
04:30 PM	1	5	0	6	1	0	0	1	0	2	0	2	0	0	0	0	9
04:45 PM	0	3	0	3	0	0	0	0	0	5	0	5	0	0	0	0	8
Total	1	23	0	24	1	0	0	1	0	19	1	20	0	0	0	0	45
05:00 PM	0	5	0	5	0	0	0	0	0	5	0	5	0	1	0	1	11
05:15 PM	0	3	0	3	0	0	0	0	0	2	0	2	0	0	0	0	5
05:30 PM	0	4	0	4	0	0	0	0	0	1	0	1	0	0	0	0	5
05:45 PM	0	3	0	3	0	0	0	0	0	5	0	5	1	0	0	1	9
Total	0	15	0	15	0	0	0	0	0	13	0	13	1	1	0	2	30
Grand Total	1	38	0	39	1	0	0	1	0	32	1	33	1	1	0	2	75
Apprch %	2.6	97.4	0		100	0	0		0	97	3		50	50	0		
Total %	1.3	50.7	0	52	1.3	0	0	1.3	0	42.7	1.3	44	1.3	1.3	0	2.7	

	Perris Boulevard Southbound				Dracaea Avenue Westbound				Perris Boulevard Northbound				Dracaea Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	**7**	0	**7**	0	0	0	0	0	3	**1**	4	0	0	0	0	**11**
04:30 PM	**1**	5	0	6	**1**	0	0	**1**	0	2	0	2	0	0	0	0	9
04:45 PM	0	3	0	3	0	0	0	0	0	**5**	0	**5**	0	0	0	0	8
05:00 PM	0	5	0	5	0	0	0	0	0	5	0	5	0	**1**	0	**1**	11
Total Volume	1	20	0	21	1	0	0	1	0	15	1	16	0	1	0	1	39
% App. Total	4.8	95.2	0		100	0	0		0	93.8	6.2		0	100	0		
PHF	.250	.714	.000	.750	.250	.000	.000	.250	.000	.750	.250	.800	.000	.250	.000	.250	.886

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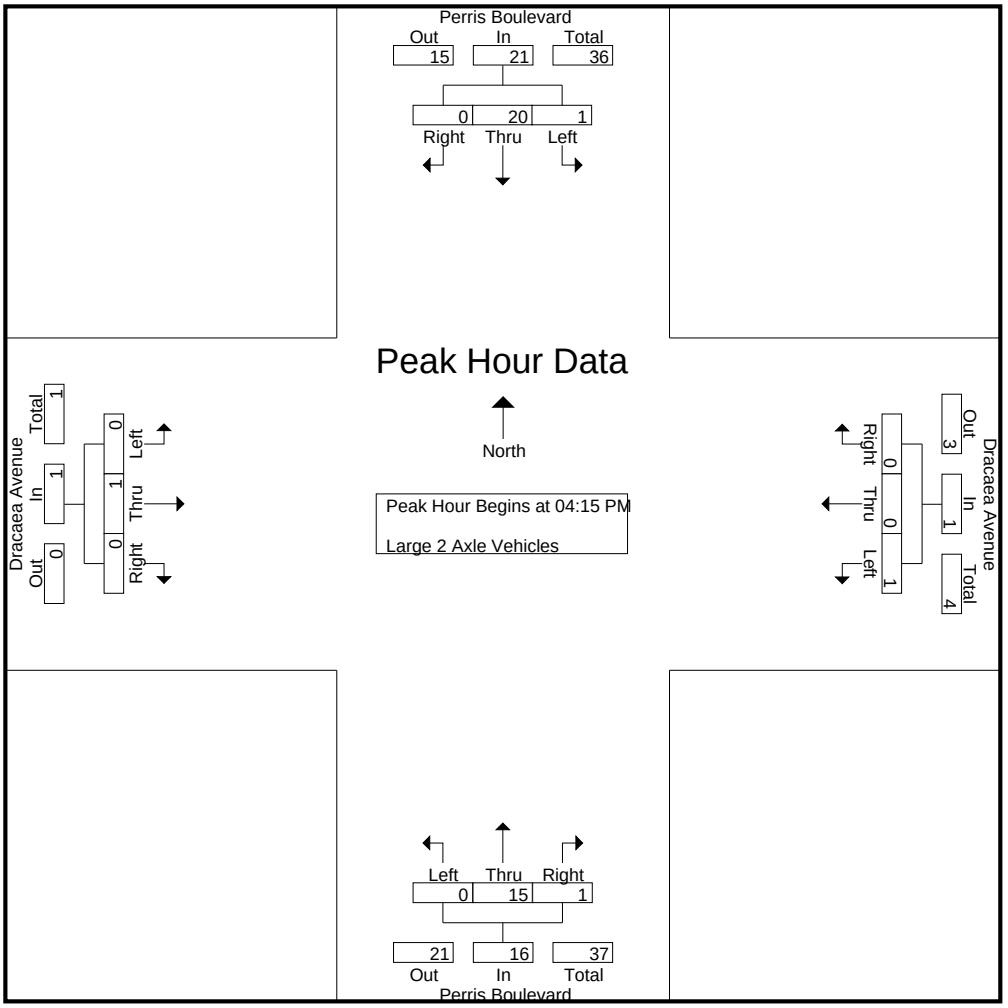

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+0 mins.	0	**7**	0	**7**	0	0	0	0	0	3	**1**	4	0	0	0	0
+15 mins.	**1**	5	0	6	**1**	0	0	**1**	0	2	0	2	0	0	0	0
+30 mins.	0	3	0	3	0	0	0	0	0	**5**	0	**5**	0	0	0	0
+45 mins.	0	5	0	5	0	0	0	0	0	5	0	5	0	**1**	0	**1**
Total Volume	1	20	0	21	1	0	0	1	0	15	1	16	0	1	0	1
% App. Total	4.8	95.2	0		100	0	0		0	93.8	6.2		0	100	0	
PHF	.250	.714	.000	.750	.250	.000	.000	.250	.000	.750	.250	.800	.000	.250	.000	.250

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Groups Printed- 3 Axle Vehicles

	Perris Boulevard Southbound				Dracaea Avenue Westbound				Perris Boulevard Northbound				Dracaea Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
04:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	4	0	4	0	0	0	0	0	1	0	1	0	0	0	0	5
05:00 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
05:15 PM	0	0	0	0	1	0	1	2	0	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	1	0	1	2	0	1	0	1	0	0	0	0	4
Grand Total	0	5	0	5	1	0	1	2	0	2	0	2	0	0	0	0	9
Apprch %	0	100	0		50	0	50		0	100	0		0	0	0		
Total %	0	55.6	0	55.6	11.1	0	11.1	22.2	0	22.2	0	22.2	0	0	0	0	

	Perris Boulevard Southbound				Dracaea Avenue Westbound				Perris Boulevard Northbound				Dracaea Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	1	0	1	0	0	0	0	0	**1**	0	**1**	0	0	0	0	**2**
Total Volume	0	4	0	4	0	0	0	0	0	1	0	1	0	0	0	0	5
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	1.00	.000	1.00	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.625

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Weather: Clear

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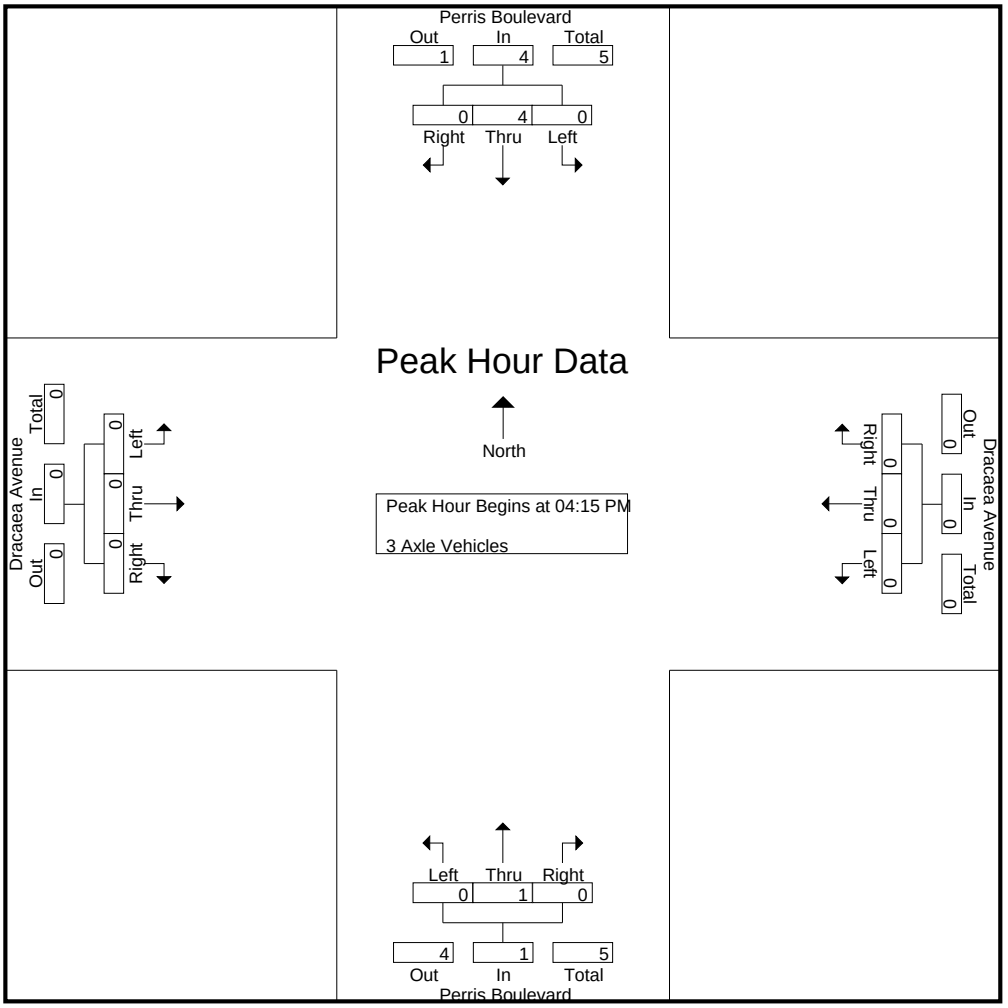

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+0 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	**1**	0	**1**	0	0	0	0
Total Volume	0	4	0	4	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	1.000	.000	1.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Dracaea Avenue
Weather: Clear

File Name : 04_MRV_Perris_Dracaea PM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Perris Boulevard Southbound				Dracaea Avenue Westbound				Perris Boulevard Northbound				Dracaea Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0	4
04:15 PM	0	6	0	6	0	0	0	0	0	2	0	2	0	0	0	0	8
04:30 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
04:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	12	0	12	0	0	0	0	0	5	0	5	0	0	0	0	17
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:15 PM	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0	4
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:45 PM	0	1	0	1	0	0	0	0	0	3	0	3	0	0	0	0	4
Total	0	4	0	4	0	0	0	0	0	6	0	6	0	0	0	0	10
Grand Total	0	16	0	16	0	0	0	0	0	11	0	11	0	0	0	0	27
Apprch %	0	100	0		0	0	0		0	100	0		0	0	0		
Total %	0	59.3	0	59.3	0	0	0	0	0	40.7	0	40.7	0	0	0	0	

	Perris Boulevard Southbound				Dracaea Avenue Westbound				Perris Boulevard Northbound				Dracaea Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	**6**	0	**6**	0	0	0	0	0	**2**	0	**2**	0	0	0	0	**8**
04:30 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
04:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	10	0	10	0	0	0	0	0	4	0	4	0	0	0	0	14
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.417	.000	.417	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.438

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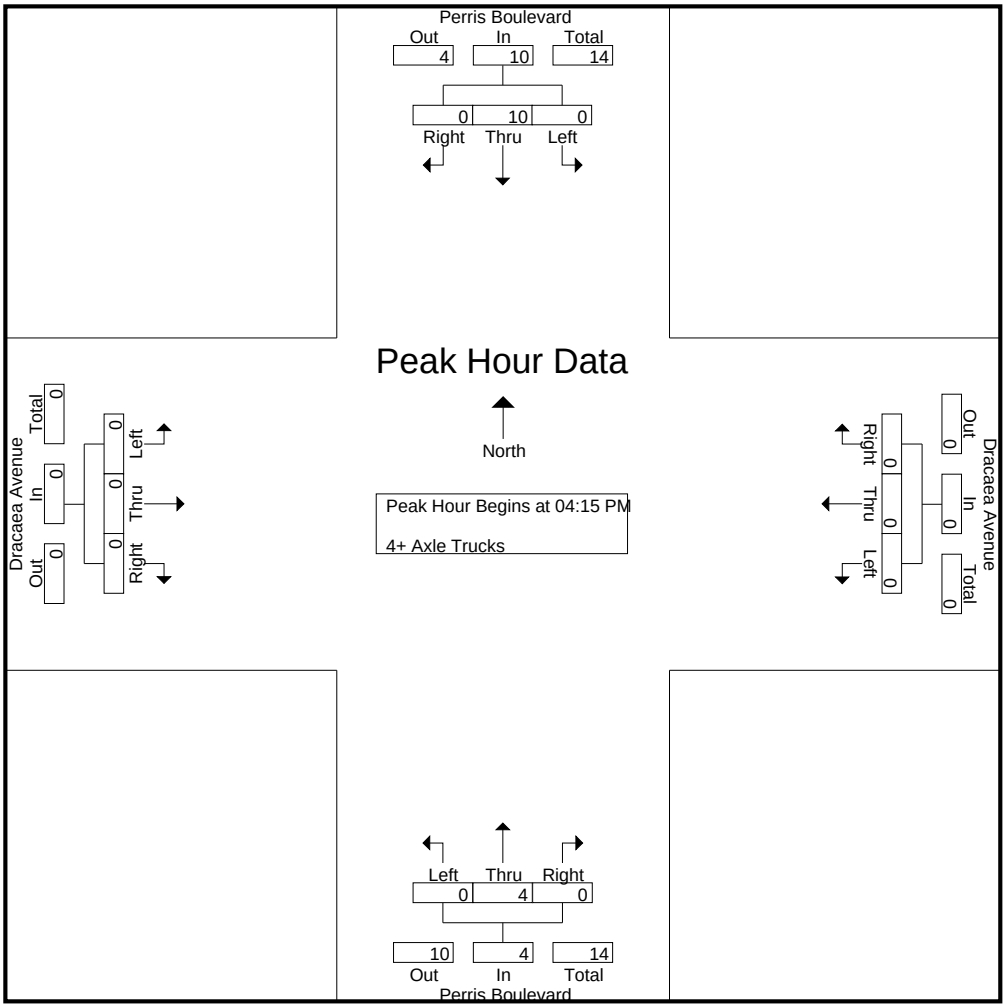
City of Moreno Valley
N/S: Perris Boulevard
E/W: Dracaea Avenue
Weather: Clear

File Name : 04_MRV_Perris_Dracaea PM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+0 mins.	0	**6**	0	**6**	0	0	0	0	0	**2**	0	**2**	0	0	0	0
+15 mins.	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	10	0	10	0	0	0	0	0	4	0	4	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.417	.000	.417	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000

Location: Moreno Valley
N/S: Perris Boulevard
E/W: Dracaea Avenue

Date: 5/23/2019
Day: Thursday

PEDESTRIANS

	North Leg Perris Boulevard	East Leg Dracaea Avenue	South Leg Perris Boulevard	West Leg Dracaea Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	3	3
7:15 AM	1	1	1	4	7
7:30 AM	0	0	1	1	2
7:45 AM	0	0	0	4	4
8:00 AM	0	0	2	1	3
8:15 AM	0	1	1	1	3
8:30 AM	0	0	0	0	0
8:45 AM	3	0	0	0	3
TOTAL VOLUMES:	4	2	5	14	25

	North Leg Perris Boulevard	East Leg Dracaea Avenue	South Leg Perris Boulevard	West Leg Dracaea Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	1	1	0	2
4:15 PM	0	0	0	2	2
4:30 PM	0	0	0	0	0
4:45 PM	1	0	0	1	2
5:00 PM	0	0	1	1	2
5:15 PM	0	0	0	0	0
5:30 PM	0	0	5	0	5
5:45 PM	0	0	2	0	2
TOTAL VOLUMES:	1	1	9	4	15

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Location: Moreno Valley
N/S: Perris Boulevard
E/W: Dracaea Avenue

Date: 5/23/2019
Day: Thursday

BICYCLES

	Southbound Perris Boulevard			Westbound Dracaea Avenue			Northbound Perris Boulevard			Eastbound Dracaea Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
7:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	2
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES:	0	2	0	0	2	0	0	0	1	1	0	0	6

	Southbound Perris Boulevard			Westbound Dracaea Avenue			Northbound Perris Boulevard			Eastbound Dracaea Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	1	2	0	0	0	0	0	0	0	0	0	3
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
5:00 PM	0	0	1	0	0	0	0	1	0	0	0	0	2
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	2	0	2	0	0	0	0	1	0	1	0	6
5:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	2
TOTAL VOLUMES:	0	7	3	2	0	1	0	2	1	1	1	0	18

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Cottonwood Avenue
Weather: Clear

File Name : 05_MRV_Perris_Cottonwood AM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Perris Boulevard Southbound				Cottonwood Avenue Westbound				Perris Boulevard Northbound				Cottonwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	9	132	11	152	9	35	25	69	7	184	2	193	8	32	4	44	458
07:15 AM	19	225	15	259	13	42	27	82	7	178	8	193	13	37	9	59	593
07:30 AM	39	241	25	305	9	60	29	98	13	219	11	243	17	65	15	97	743
07:45 AM	40	252	48	340	16	80	56	152	21	232	14	267	29	79	14	122	881
Total	107	850	99	1056	47	217	137	401	48	813	35	896	67	213	42	322	2675
08:00 AM	31	187	21	239	21	90	44	155	17	211	15	243	27	41	15	83	720
08:15 AM	11	140	10	161	4	34	16	54	14	175	4	193	13	28	8	49	457
08:30 AM	7	95	4	106	8	36	28	72	7	172	8	187	16	15	7	38	403
08:45 AM	12	121	12	145	14	38	27	79	12	163	9	184	13	21	8	42	450
Total	61	543	47	651	47	198	115	360	50	721	36	807	69	105	38	212	2030
Grand Total	168	1393	146	1707	94	415	252	761	98	1534	71	1703	136	318	80	534	4705
Apprch %	9.8	81.6	8.6		12.4	54.5	33.1		5.8	90.1	4.2		25.5	59.6	15		
Total %	3.6	29.6	3.1	36.3	2	8.8	5.4	16.2	2.1	32.6	1.5	36.2	2.9	6.8	1.7	11.3	
Passenger Vehicles	164	1316	145	1625	90	401	246	737	95	1462	68	1625	133	310	77	520	4507
% Passenger Vehicles	97.6	94.5	99.3	95.2	95.7	96.6	97.6	96.8	96.9	95.3	95.8	95.4	97.8	97.5	96.2	97.4	95.8
Large 2 Axle Vehicles	4	62	1	67	4	14	5	23	3	43	3	49	3	8	3	14	153
% Large 2 Axle Vehicles	2.4	4.5	0.7	3.9	4.3	3.4	2	3	3.1	2.8	4.2	2.9	2.2	2.5	3.8	2.6	3.3
3 Axle Vehicles	0	2	0	2	0	0	1	1	0	2	0	2	0	0	0	0	5
% 3 Axle Vehicles	0	0.1	0	0.1	0	0	0.4	0.1	0	0.1	0	0.1	0	0	0	0	0.1
4+ Axle Trucks	0	13	0	13	0	0	0	0	0	27	0	27	0	0	0	0	40
% 4+ Axle Trucks	0	0.9	0	0.8	0	0	0	0	0	1.8	0	1.6	0	0	0	0	0.9

	Perris Boulevard Southbound				Cottonwood Avenue Westbound				Perris Boulevard Northbound				Cottonwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	19	225	15	259	13	42	27	82	7	178	8	193	13	37	9	59	593
07:30 AM	39	241	25	305	9	60	29	98	13	219	11	243	17	65	**15**	97	743
07:45 AM	**40**	**252**	**48**	**340**	16	80	**56**	152	**21**	**232**	14	**267**	**29**	**79**	14	**122**	**881**
08:00 AM	31	187	21	239	**21**	**90**	44	**155**	17	211	**15**	243	27	41	15	83	720
Total Volume	129	905	109	1143	59	272	156	487	58	840	48	946	86	222	53	361	2937
% App. Total	11.3	79.2	9.5		12.1	55.9	32		6.1	88.8	5.1		23.8	61.5	14.7		
PHF	.806	.898	.568	.840	.702	.756	.696	.785	.690	.905	.800	.886	.741	.703	.883	.740	.833

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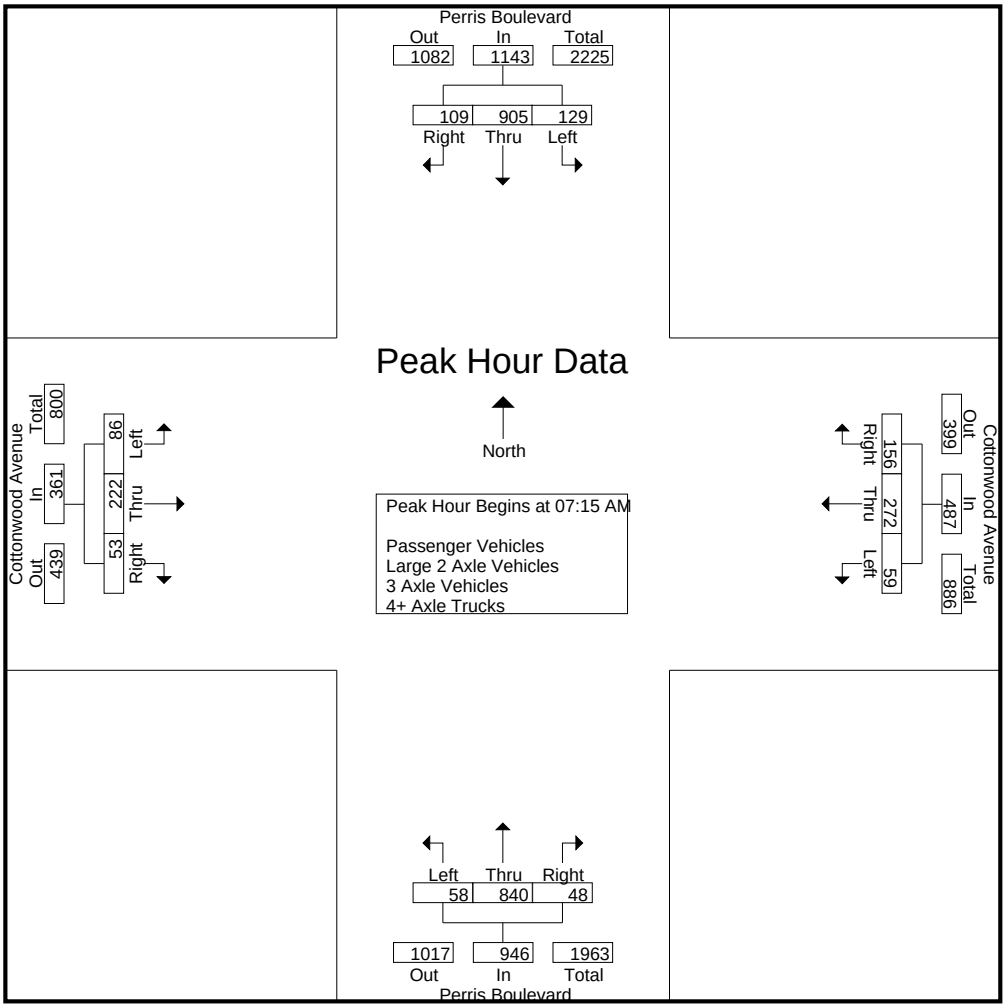
City of Moreno Valley
N/S: Perris Boulevard
E/W: Cottonwood Avenue
Weather: Clear

File Name : 05_MRV_Perris_Cottonwood AM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	19	225	15	259	13	42	27	82	7	178	8	193	13	37	9	59
+15 mins.	39	241	25	305	9	60	29	98	13	219	11	243	17	65	**15**	97
+30 mins.	**40**	**252**	**48**	**340**	16	80	**56**	152	**21**	**232**	14	**267**	**29**	**79**	14	**122**
+45 mins.	31	187	21	239	**21**	**90**	44	**155**	17	211	**15**	243	27	41	15	83
Total Volume	129	905	109	1143	59	272	156	487	58	840	48	946	86	222	53	361
% App. Total	11.3	79.2	9.5		12.1	55.9	32		6.1	88.8	5.1		23.8	61.5	14.7	
PHF	.806	.898	.568	.840	.702	.756	.696	.785	.690	.905	.800	.886	.741	.703	.883	.740

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Cottonwood Avenue
Weather: Clear

File Name : 05_MRV_Perris_Cottonwood AM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 1

Groups Printed- Passenger Vehicles

	Perris Boulevard Southbound				Cottonwood Avenue Westbound				Perris Boulevard Northbound				Cottonwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	9	123	11	143	9	35	25	69	6	171	0	177	8	31	4	43	432
07:15 AM	18	220	15	253	13	42	26	81	7	173	7	187	13	34	8	55	576
07:30 AM	38	235	25	298	8	59	28	95	13	210	11	234	16	65	15	96	723
07:45 AM	39	243	48	330	15	75	53	143	20	222	14	256	29	79	14	122	851
Total	104	821	99	1024	45	211	132	388	46	776	32	854	66	209	41	316	2582
08:00 AM	31	177	21	229	20	89	44	153	17	203	15	235	27	40	14	81	698
08:15 AM	10	125	10	145	4	31	16	51	13	165	4	182	12	27	7	46	424
08:30 AM	7	85	4	96	8	33	28	69	7	165	8	180	16	14	7	37	382
08:45 AM	12	108	11	131	13	37	26	76	12	153	9	174	12	20	8	40	421
Total	60	495	46	601	45	190	114	349	49	686	36	771	67	101	36	204	1925
Grand Total	164	1316	145	1625	90	401	246	737	95	1462	68	1625	133	310	77	520	4507
Apprch %	10.1	81	8.9		12.2	54.4	33.4		5.8	90	4.2		25.6	59.6	14.8		
Total %	3.6	29.2	3.2	36.1	2	8.9	5.5	16.4	2.1	32.4	1.5	36.1	3	6.9	1.7	11.5	

	Perris Boulevard Southbound				Cottonwood Avenue Westbound				Perris Boulevard Northbound				Cottonwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	18	220	15	253	13	42	26	81	7	173	7	187	13	34	8	55	576
07:30 AM	38	235	25	298	8	59	28	95	13	210	11	234	16	65	**15**	96	723
07:45 AM	**39**	**243**	**48**	**330**	15	75	**53**	143	**20**	**222**	14	**256**	**29**	**79**	14	**122**	**851**
08:00 AM	31	177	21	229	**20**	**89**	44	**153**	17	203	**15**	235	27	40	14	81	698
Total Volume	126	875	109	1110	56	265	151	472	57	808	47	912	85	218	51	354	2848
% App. Total	11.4	78.8	9.8		11.9	56.1	32		6.2	88.6	5.2		24	61.6	14.4		
PHF	.808	.900	.568	.841	.700	.744	.712	.771	.713	.910	.783	.891	.733	.690	.850	.725	.837

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City of Moreno Valley
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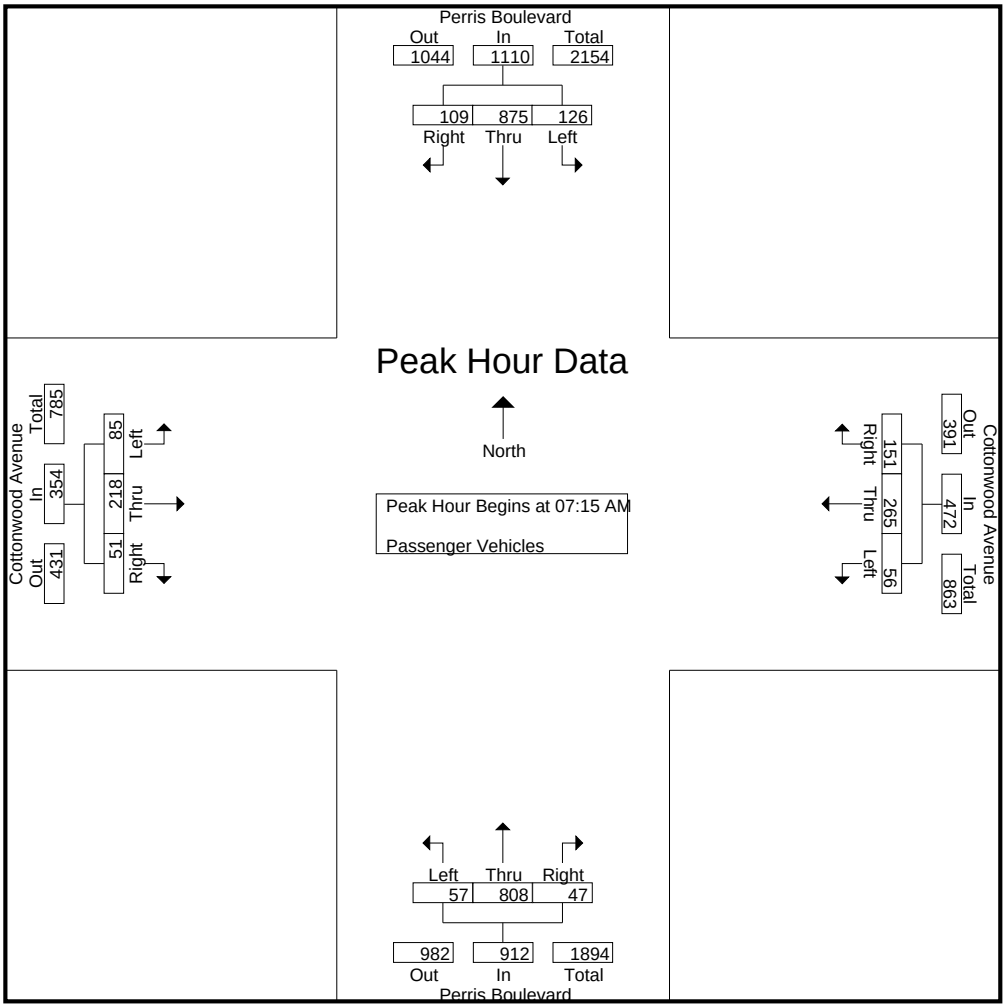
E/W: Cottonwood Avenue
Weather: Clear

File Name : 05_MRV_Perris_Cottonwood AM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 2



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	18	220	15	253	13	42	26	81	7	173	7	187	13	34	8	55
+15 mins.	38	235	25	298	8	59	28	95	13	210	11	234	16	65	**15**	96
+30 mins.	**39**	**243**	**48**	**330**	15	75	**53**	143	**20**	**222**	14	**256**	**29**	**79**	14	**122**
+45 mins.	31	177	21	229	**20**	**89**	44	**153**	17	203	**15**	235	27	40	14	81
Total Volume	126	875	109	1110	56	265	151	472	57	808	47	912	85	218	51	354
% App. Total	11.4	78.8	9.8		11.9	56.1	32		6.2	88.6	5.2		24	61.6	14.4	
PHF	.808	.900	.568	.841	.700	.744	.712	.771	.713	.910	.783	.891	.733	.690	.850	.725

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Cottonwood Avenue
Weather: Clear

File Name : 05_MRV_Perris_Cottonwood AM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Perris Boulevard Southbound				Cottonwood Avenue Westbound				Perris Boulevard Northbound				Cottonwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	8	0	8	0	0	0	0	1	10	2	13	0	1	0	1	22
07:15 AM	1	5	0	6	0	0	0	0	0	3	1	4	0	3	1	4	14
07:30 AM	1	4	0	5	1	1	1	3	0	7	0	7	1	0	0	1	16
07:45 AM	1	8	0	9	1	5	3	9	1	6	0	7	0	0	0	0	25
Total	3	25	0	28	2	6	4	12	2	26	3	31	1	4	1	6	77
08:00 AM	0	6	0	6	1	1	0	2	0	6	0	6	0	1	1	2	16
08:15 AM	1	11	0	12	0	3	0	3	1	3	0	4	1	1	1	3	22
08:30 AM	0	10	0	10	0	3	0	3	0	4	0	4	0	1	0	1	18
08:45 AM	0	10	1	11	1	1	1	3	0	4	0	4	1	1	0	2	20
Total	1	37	1	39	2	8	1	11	1	17	0	18	2	4	2	8	76
Grand Total	4	62	1	67	4	14	5	23	3	43	3	49	3	8	3	14	153
Apprch %	6	92.5	1.5		17.4	60.9	21.7		6.1	87.8	6.1		21.4	57.1	21.4		
Total %	2.6	40.5	0.7	43.8	2.6	9.2	3.3	15	2	28.1	2	32	2	5.2	2	9.2	

	Perris Boulevard Southbound				Cottonwood Avenue Westbound				Perris Boulevard Northbound				Cottonwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**1**	5	0	6	0	0	0	0	0	3	**1**	4	0	**3**	**1**	**4**	14
07:30 AM	1	4	0	5	**1**	1	1	3	0	**7**	0	**7**	**1**	0	0	1	16
07:45 AM	1	**8**	0	**9**	1	**5**	**3**	**9**	**1**	6	0	7	0	0	0	0	**25**
08:00 AM	0	6	0	6	1	1	0	2	0	6	0	6	0	1	1	2	16
Total Volume	3	23	0	26	3	7	4	14	1	22	1	24	1	4	2	7	71
% App. Total	11.5	88.5	0		21.4	50	28.6		4.2	91.7	4.2		14.3	57.1	28.6		
PHF	.750	.719	.000	.722	.750	.350	.333	.389	.250	.786	.250	.857	.250	.333	.500	.438	.710

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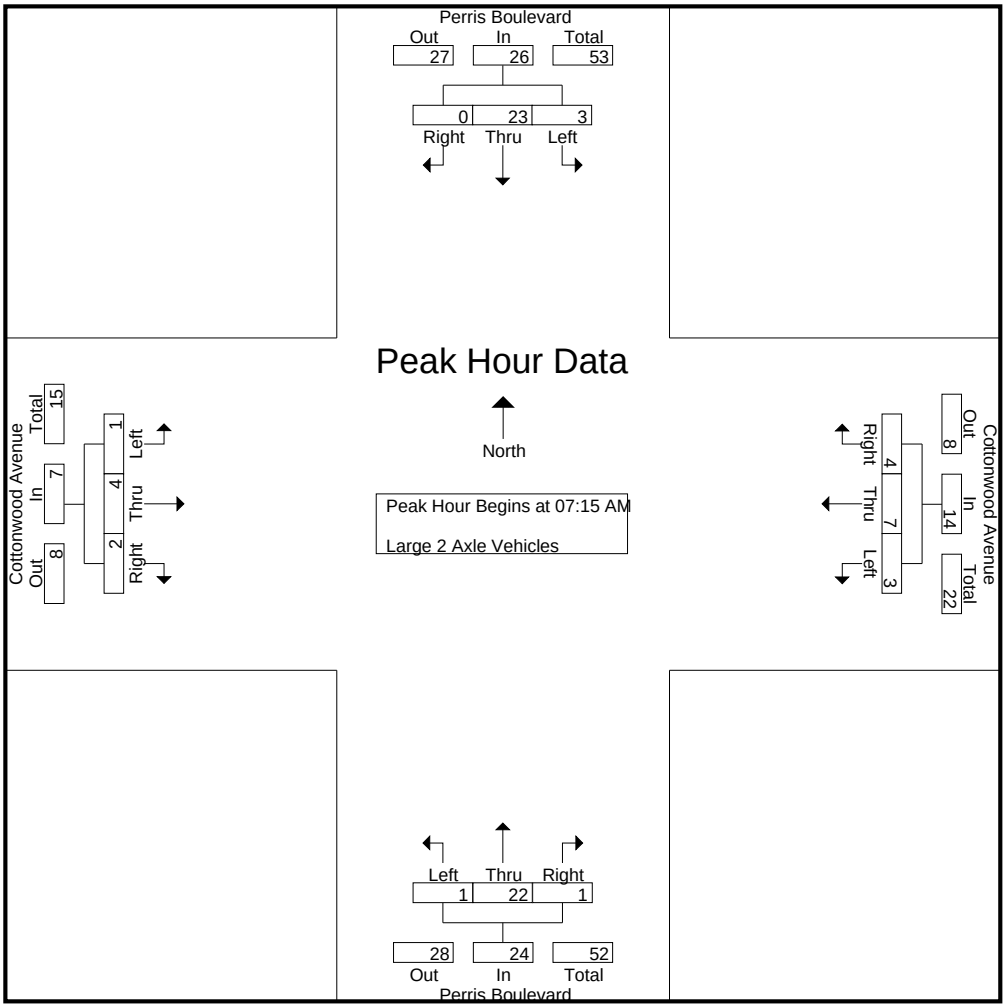

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	**1**	5	0	6	0	0	0	0	0	3	**1**	4	0	**3**	**1**	**4**
+15 mins.	1	4	0	5	**1**	1	1	3	0	**7**	0	**7**	**1**	0	0	1
+30 mins.	1	**8**	0	**9**	1	**5**	**3**	**9**	**1**	6	0	7	0	0	0	0
+45 mins.	0	6	0	6	1	1	0	2	0	6	0	6	0	1	1	2
Total Volume	3	23	0	26	3	7	4	14	1	22	1	24	1	4	2	7
% App. Total	11.5	88.5	0		21.4	50	28.6		4.2	91.7	4.2		14.3	57.1	28.6	
PHF	.750	.719	.000	.722	.750	.350	.333	.389	.250	.786	.250	.857	.250	.333	.500	.438

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Groups Printed- 3 Axle Vehicles

	Perris Boulevard Southbound				Cottonwood Avenue Westbound				Perris Boulevard Northbound				Cottonwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	0	0	1	1	0	2	0	2	0	0	0	0	4
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	2	0	2	0	0	1	1	0	2	0	2	0	0	0	0	5
Apprch %	0	100	0		0	0	100		0	100	0		0	0	0		
Total %	0	40	0	40	0	0	20	20	0	40	0	40	0	0	0	0	

	Perris Boulevard Southbound				Cottonwood Avenue Westbound				Perris Boulevard Northbound				Cottonwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	**1**	**1**	0	**1**	0	**1**	0	0	0	0	**2**
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	1	1	0	1	0	1	0	0	0	0	3
% App. Total	0	100	0		0	0	100		0	100	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.250	.250	.000	.250	.000	.250	.000	.000	.000	.000	.375

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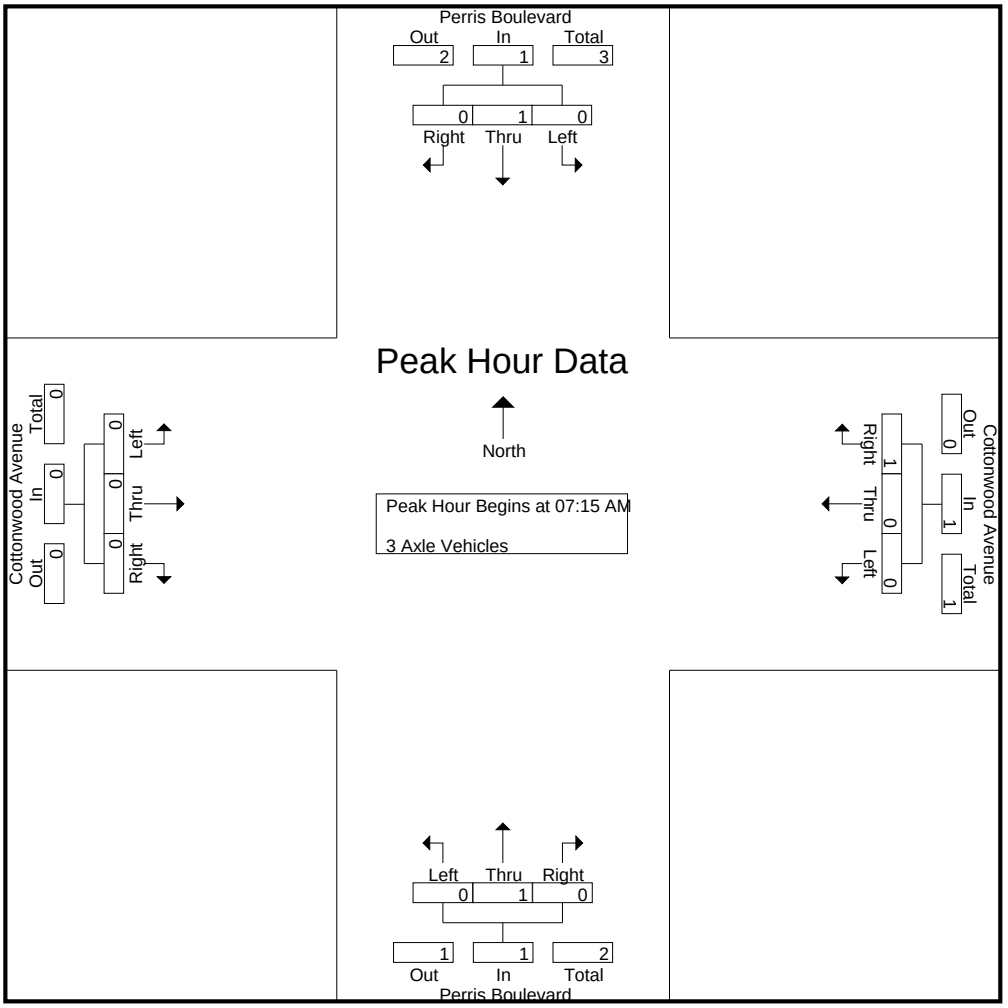

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	**1**	**1**	0	**1**	0	**1**	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	1	1	0	1	0	1	0	0	0	0
% App. Total	0	100	0		0	0	100		0	100	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.250	.250	.000	.250	.000	.250	.000	.000	.000	.000

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Groups Printed- 4+ Axle Trucks

	Perris Boulevard Southbound				Cottonwood Avenue Westbound				Perris Boulevard Northbound				Cottonwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:30 AM	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0	4
07:45 AM	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	4
Total	0	3	0	3	0	0	0	0	0	9	0	9	0	0	0	0	12
08:00 AM	0	4	0	4	0	0	0	0	0	2	0	2	0	0	0	0	6
08:15 AM	0	3	0	3	0	0	0	0	0	7	0	7	0	0	0	0	10
08:30 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
08:45 AM	0	3	0	3	0	0	0	0	0	6	0	6	0	0	0	0	9
Total	0	10	0	10	0	0	0	0	0	18	0	18	0	0	0	0	28
Grand Total	0	13	0	13	0	0	0	0	0	27	0	27	0	0	0	0	40
Apprch %	0	100	0		0	0	0		0	100	0		0	0	0		
Total %	0	32.5	0	32.5	0	0	0	0	0	67.5	0	67.5	0	0	0	0	

	Perris Boulevard Southbound				Cottonwood Avenue Westbound				Perris Boulevard Northbound				Cottonwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:30 AM	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0	4
07:45 AM	0	0	0	0	0	0	0	0	0	**4**	0	**4**	0	0	0	0	4
08:00 AM	0	**4**	0	**4**	0	0	0	0	0	2	0	2	0	0	0	0	**6**
Total Volume	0	6	0	6	0	0	0	0	0	9	0	9	0	0	0	0	15
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.375	.000	.375	.000	.000	.000	.000	.000	.563	.000	.563	.000	.000	.000	.000	.625

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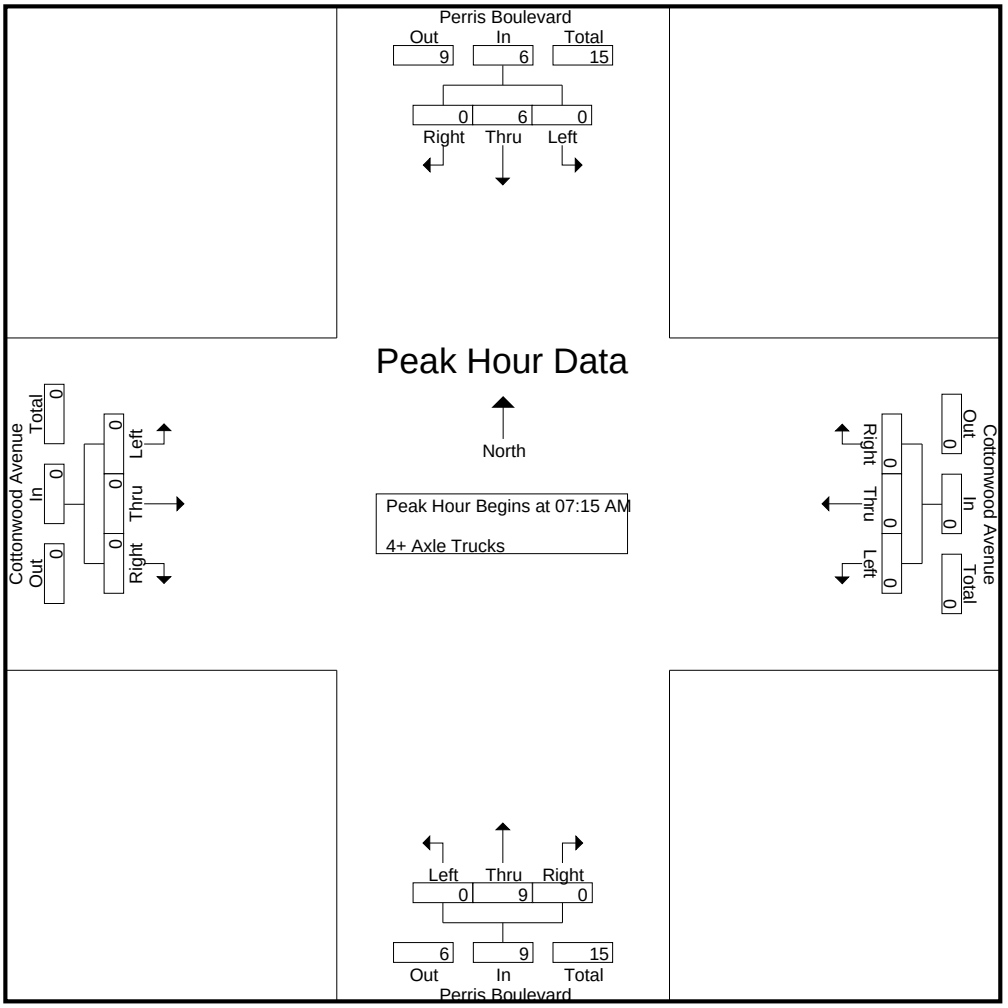

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+15 mins.	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	**4**	0	**4**	0	0	0	0
+45 mins.	0	**4**	0	**4**	0	0	0	0	0	2	0	2	0	0	0	0
Total Volume	0	6	0	6	0	0	0	0	0	9	0	9	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.375	.000	.375	.000	.000	.000	.000	.000	.563	.000	.563	.000	.000	.000	.000

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Perris Boulevard Southbound				Cottonwood Avenue Westbound				Perris Boulevard Northbound				Cottonwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	20	234	24	278	12	24	22	58	12	222	5	239	26	44	24	94	669
04:15 PM	28	238	22	288	3	34	21	58	16	248	9	273	24	37	11	72	691
04:30 PM	29	239	17	285	3	38	23	64	15	225	12	252	28	46	17	91	692
04:45 PM	20	213	19	252	3	37	21	61	18	216	5	239	14	67	22	103	655
Total	97	924	82	1103	21	133	87	241	61	911	31	1003	92	194	74	360	2707
05:00 PM	30	227	27	284	5	28	25	58	16	211	10	237	15	58	12	85	664
05:15 PM	25	204	27	256	4	41	19	64	24	226	11	261	29	53	19	101	682
05:30 PM	32	225	28	285	6	29	19	54	11	210	11	232	23	62	8	93	664
05:45 PM	27	210	26	263	5	31	28	64	10	189	9	208	32	57	22	111	646
Total	114	866	108	1088	20	129	91	240	61	836	41	938	99	230	61	390	2656
Grand Total	211	1790	190	2191	41	262	178	481	122	1747	72	1941	191	424	135	750	5363
Apprch %	9.6	81.7	8.7		8.5	54.5	37		6.3	90	3.7		25.5	56.5	18		
Total %	3.9	33.4	3.5	40.9	0.8	4.9	3.3	9	2.3	32.6	1.3	36.2	3.6	7.9	2.5	14	
Passenger Vehicles	209	1734	188	2131	37	261	178	476	118	1696	72	1886	190	417	133	740	5233
% Passenger Vehicles	99.1	96.9	98.9	97.3	90.2	99.6	100	99	96.7	97.1	100	97.2	99.5	98.3	98.5	98.7	97.6
Large 2 Axle Vehicles	2	34	2	38	3	1	0	4	3	40	0	43	1	6	2	9	94
% Large 2 Axle Vehicles	0.9	1.9	1.1	1.7	7.3	0.4	0	0.8	2.5	2.3	0	2.2	0.5	1.4	1.5	1.2	1.8
3 Axle Vehicles	0	6	0	6	1	0	0	1	0	2	0	2	0	1	0	1	10
% 3 Axle Vehicles	0	0.3	0	0.3	2.4	0	0	0.2	0	0.1	0	0.1	0	0.2	0	0.1	0.2
4+ Axle Trucks	0	16	0	16	0	0	0	0	1	9	0	10	0	0	0	0	26
% 4+ Axle Trucks	0	0.9	0	0.7	0	0	0	0	0.8	0.5	0	0.5	0	0	0	0	0.5

	Perris Boulevard Southbound				Cottonwood Avenue Westbound				Perris Boulevard Northbound				Cottonwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	20	234	**24**	278	**12**	24	22	58	12	222	5	239	26	44	**24**	94	669
04:15 PM	28	238	22	**288**	3	34	21	58	16	**248**	9	**273**	24	37	11	72	691
04:30 PM	**29**	**239**	17	285	3	**38**	**23**	**64**	15	225	**12**	252	**28**	46	17	91	**692**
04:45 PM	20	213	19	252	3	37	21	61	**18**	216	5	239	14	**67**	22	**103**	655
Total Volume	97	924	82	1103	21	133	87	241	61	911	31	1003	92	194	74	360	2707
% App. Total	8.8	83.8	7.4		8.7	55.2	36.1		6.1	90.8	3.1		25.6	53.9	20.6		
PHF	.836	.967	.854	.957	.438	.875	.946	.941	.847	.918	.646	.918	.821	.724	.771	.874	.978

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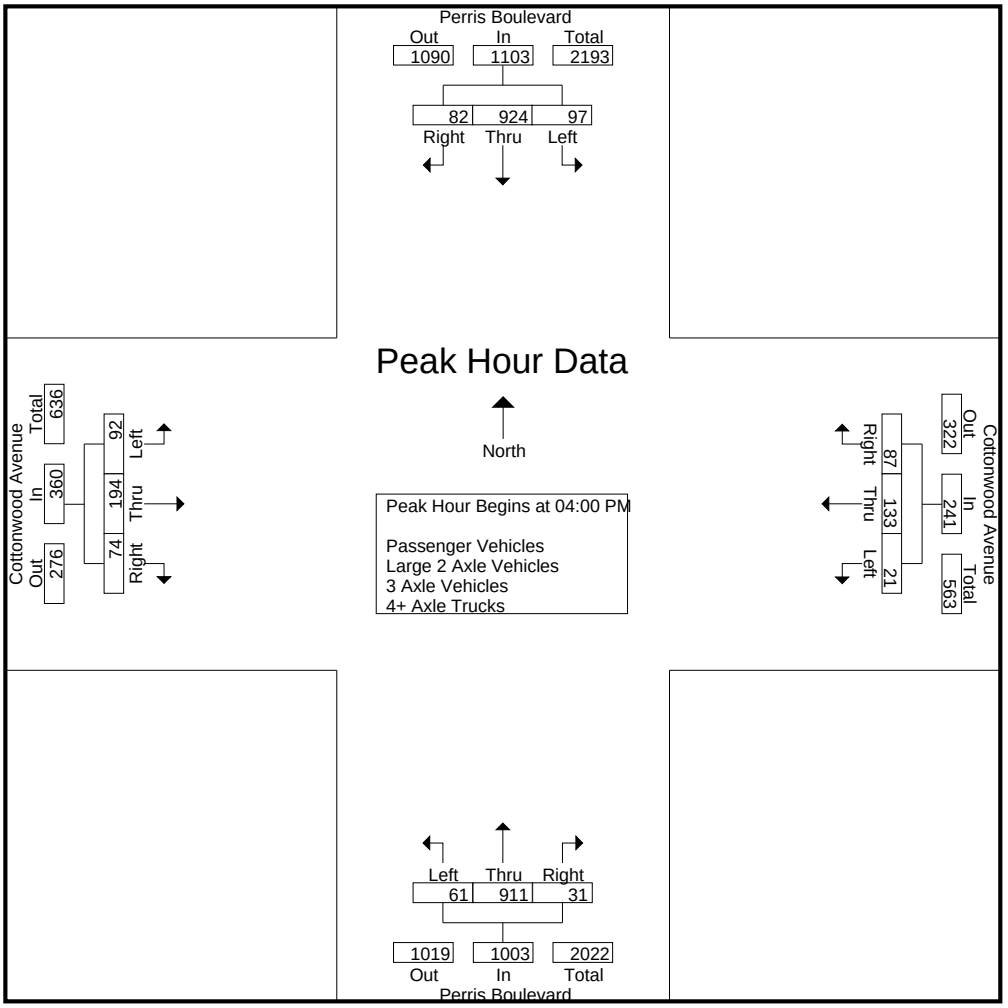

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:30 PM				04:00 PM				05:00 PM			
+0 mins.	28	238	22	**288**	3	38	23	**64**	12	222	5	239	15	58	12	85
+15 mins.	29	**239**	17	285	3	37	21	61	16	**248**	9	**273**	29	53	19	101
+30 mins.	20	213	19	252	**5**	28	**25**	58	15	225	**12**	252	23	**62**	8	93
+45 mins.	**30**	227	**27**	284	4	**41**	19	64	**18**	216	5	239	**32**	57	**22**	**111**
Total Volume	107	917	85	1109	15	144	88	247	61	911	31	1003	99	230	61	390
% App. Total	9.6	82.7	7.7		6.1	58.3	35.6		6.1	90.8	3.1		25.4	59	15.6	
PHF	.892	.959	.787	.963	.750	.878	.880	.965	.847	.918	.646	.918	.773	.927	.693	.878

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Groups Printed- Passenger Vehicles

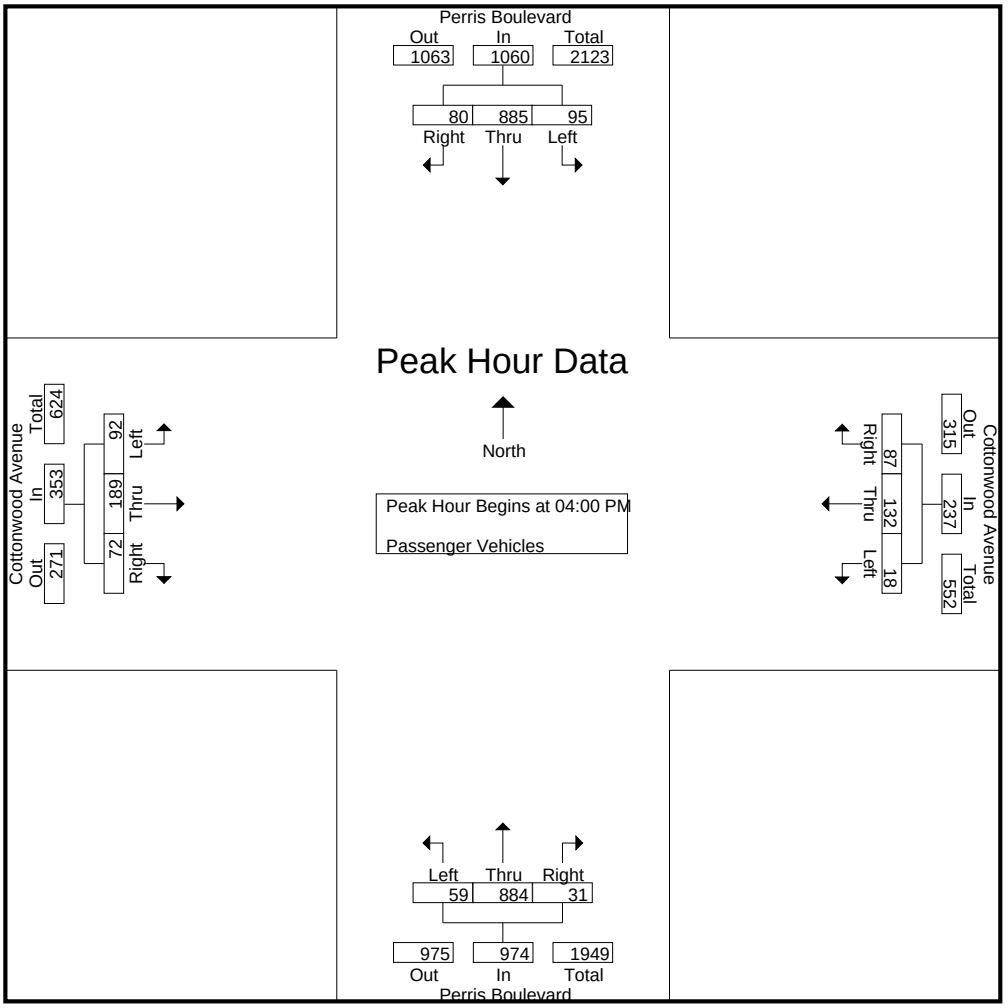
	Perris Boulevard Southbound				Cottonwood Avenue Westbound				Perris Boulevard Northbound				Cottonwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	20	222	23	265	11	23	22	56	12	209	5	226	26	41	23	90	637
04:15 PM	27	224	21	272	1	34	21	56	15	242	9	266	24	37	11	72	666
04:30 PM	28	232	17	277	3	38	23	64	15	222	12	249	28	44	16	88	678
04:45 PM	20	207	19	246	3	37	21	61	17	211	5	233	14	67	22	103	643
Total	95	885	80	1060	18	132	87	237	59	884	31	974	92	189	72	353	2624
05:00 PM	30	223	27	280	4	28	25	57	15	203	10	228	15	57	12	84	649
05:15 PM	25	197	27	249	4	41	19	64	24	221	11	256	29	53	19	101	670
05:30 PM	32	222	28	282	6	29	19	54	10	206	11	227	23	61	8	92	655
05:45 PM	27	207	26	260	5	31	28	64	10	182	9	201	31	57	22	110	635
Total	114	849	108	1071	19	129	91	239	59	812	41	912	98	228	61	387	2609
Grand Total	209	1734	188	2131	37	261	178	476	118	1696	72	1886	190	417	133	740	5233
Apprch %	9.8	81.4	8.8		7.8	54.8	37.4		6.3	89.9	3.8		25.7	56.4	18		
Total %	4	33.1	3.6	40.7	0.7	5	3.4	9.1	2.3	32.4	1.4	36	3.6	8	2.5	14.1	

	Perris Boulevard Southbound				Cottonwood Avenue Westbound				Perris Boulevard Northbound				Cottonwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	20	222	**23**	265	**11**	23	22	56	12	209	5	226	26	41	**23**	90	637
04:15 PM	27	224	21	272	1	34	21	56	15	**242**	9	**266**	24	37	11	72	666
04:30 PM	**28**	**232**	17	**277**	3	**38**	**23**	**64**	15	222	**12**	249	**28**	44	16	88	**678**
04:45 PM	20	207	19	246	3	37	21	61	**17**	211	5	233	14	**67**	22	**103**	643
Total Volume	95	885	80	1060	18	132	87	237	59	884	31	974	92	189	72	353	2624
% App. Total	9	83.5	7.5		7.6	55.7	36.7		6.1	90.8	3.2		26.1	53.5	20.4		
PHF	.848	.954	.870	.957	.409	.868	.946	.926	.868	.913	.646	.915	.821	.705	.783	.857	.968

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Perris Boulevard
E/W: Cottonwood Avenue
Weather: Clear

File Name : 05_MRV_Perris_Cottonwood PM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	20	222	**23**	265	**11**	23	22	56	12	209	5	226	26	41	**23**	90
+15 mins.	27	224	21	272	1	34	21	56	15	**242**	9	**266**	24	37	11	72
+30 mins.	**28**	**232**	17	**277**	3	**38**	**23**	**64**	15	222	**12**	249	**28**	44	16	88
+45 mins.	20	207	19	246	3	37	21	61	**17**	211	5	233	14	**67**	22	**103**
Total Volume	95	885	80	1060	18	132	87	237	59	884	31	974	92	189	72	353
% App. Total	9	83.5	7.5		7.6	55.7	36.7		6.1	90.8	3.2		26.1	53.5	20.4	
PHF	.848	.954	.870	.957	.409	.868	.946	.926	.868	.913	.646	.915	.821	.705	.783	.857

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Cottonwood Avenue
Weather: Clear

File Name : 05_MRV_Perris_Cottonwood PM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Perris Boulevard Southbound				Cottonwood Avenue Westbound				Perris Boulevard Northbound				Cottonwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	9	1	10	1	1	0	2	0	11	0	11	0	3	1	4	27
04:15 PM	1	7	1	9	1	0	0	1	1	5	0	6	0	0	0	0	16
04:30 PM	1	4	0	5	0	0	0	0	0	2	0	2	0	2	1	3	10
04:45 PM	0	3	0	3	0	0	0	0	0	4	0	4	0	0	0	0	7
Total	2	23	2	27	2	1	0	3	1	22	0	23	0	5	2	7	60
05:00 PM	0	3	0	3	1	0	0	1	1	7	0	8	0	1	0	1	13
05:15 PM	0	4	0	4	0	0	0	0	0	4	0	4	0	0	0	0	8
05:30 PM	0	3	0	3	0	0	0	0	1	3	0	4	0	0	0	0	7
05:45 PM	0	1	0	1	0	0	0	0	0	4	0	4	1	0	0	1	6
Total	0	11	0	11	1	0	0	1	2	18	0	20	1	1	0	2	34
Grand Total	2	34	2	38	3	1	0	4	3	40	0	43	1	6	2	9	94
Apprch %	5.3	89.5	5.3		75	25	0		7	93	0		11.1	66.7	22.2		
Total %	2.1	36.2	2.1	40.4	3.2	1.1	0	4.3	3.2	42.6	0	45.7	1.1	6.4	2.1	9.6	

	Perris Boulevard Southbound				Cottonwood Avenue Westbound				Perris Boulevard Northbound				Cottonwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**9**	**1**	**10**	**1**	**1**	0	**2**	0	**11**	0	**11**	0	**3**	**1**	**4**	**27**
04:15 PM	**1**	7	1	9	1	0	0	1	**1**	5	0	6	0	0	0	0	16
04:30 PM	1	4	0	5	0	0	0	0	0	2	0	2	0	2	1	3	10
04:45 PM	0	3	0	3	0	0	0	0	0	4	0	4	0	0	0	0	7
Total Volume	2	23	2	27	2	1	0	3	1	22	0	23	0	5	2	7	60
% App. Total	7.4	85.2	7.4		66.7	33.3	0		4.3	95.7	0		0	71.4	28.6		
PHF	.500	.639	.500	.675	.500	.250	.000	.375	.250	.500	.000	.523	.000	.417	.500	.438	.556

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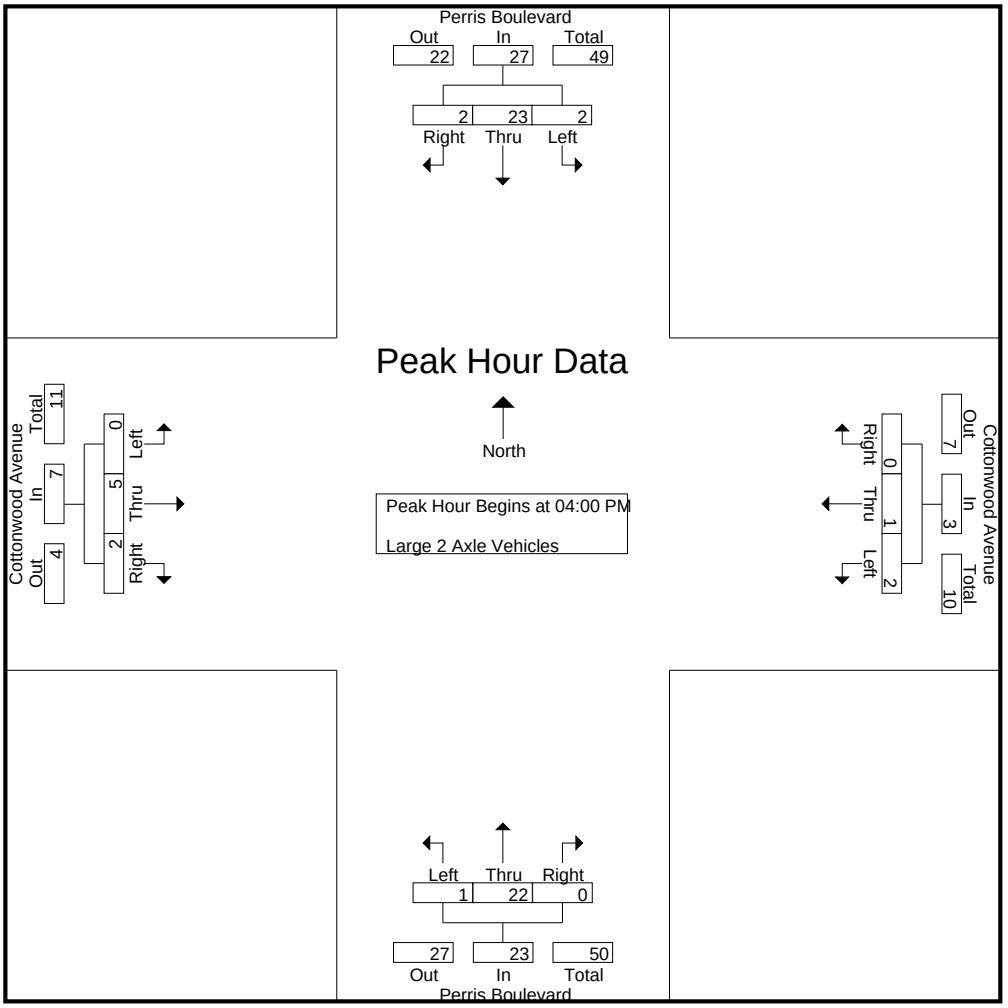
City of Moreno Valley
N/S: Perris Boulevard
E/W: Cottonwood Avenue
Weather: Clear

File Name : 05_MRV_Perris_Cottonwood PM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	**9**	**1**	**10**	**1**	**1**	0	**2**	0	**11**	0	**11**	0	**3**	**1**	**4**
+15 mins.	**1**	7	1	9	1	0	0	1	**1**	5	0	6	0	0	0	0
+30 mins.	1	4	0	5	0	0	0	0	0	2	0	2	0	2	1	3
+45 mins.	0	3	0	3	0	0	0	0	0	4	0	4	0	0	0	0
Total Volume	2	23	2	27	2	1	0	3	1	22	0	23	0	5	2	7
% App. Total	7.4	85.2	7.4		66.7	33.3	0		4.3	95.7	0		0	71.4	28.6	
PHF	.500	.639	.500	.675	.500	.250	.000	.375	.250	.500	.000	.523	.000	.417	.500	.438

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Cottonwood Avenue
Weather: Clear

File Name : 05_MRV_Perris_Cottonwood PM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Perris Boulevard Southbound				Cottonwood Avenue Westbound				Perris Boulevard Northbound				Cottonwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
04:15 PM	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	2
04:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	4	0	4	1	0	0	1	0	1	0	1	0	0	0	0	6
05:00 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	2	0	0	0	0	0	1	0	1	0	1	0	1	4
Grand Total	0	6	0	6	1	0	0	1	0	2	0	2	0	1	0	1	10
Apprch %	0	100	0		100	0	0		0	100	0		0	100	0		
Total %	0	60	0	60	10	0	0	10	0	20	0	20	0	10	0	10	

	Perris Boulevard Southbound				Cottonwood Avenue Westbound				Perris Boulevard Northbound				Cottonwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**1**	0	**1**	0	0	0	0	0	**1**	0	**1**	0	0	0	0	**2**
04:15 PM	0	1	0	1	**1**	0	0	**1**	0	0	0	0	0	0	0	0	2
04:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	4	0	4	1	0	0	1	0	1	0	1	0	0	0	0	6
% App. Total	0	100	0		100	0	0		0	100	0		0	0	0		
PHF	.000	1.00	.000	1.00	.250	.000	.000	.250	.000	.250	.000	.250	.000	.000	.000	.000	.750

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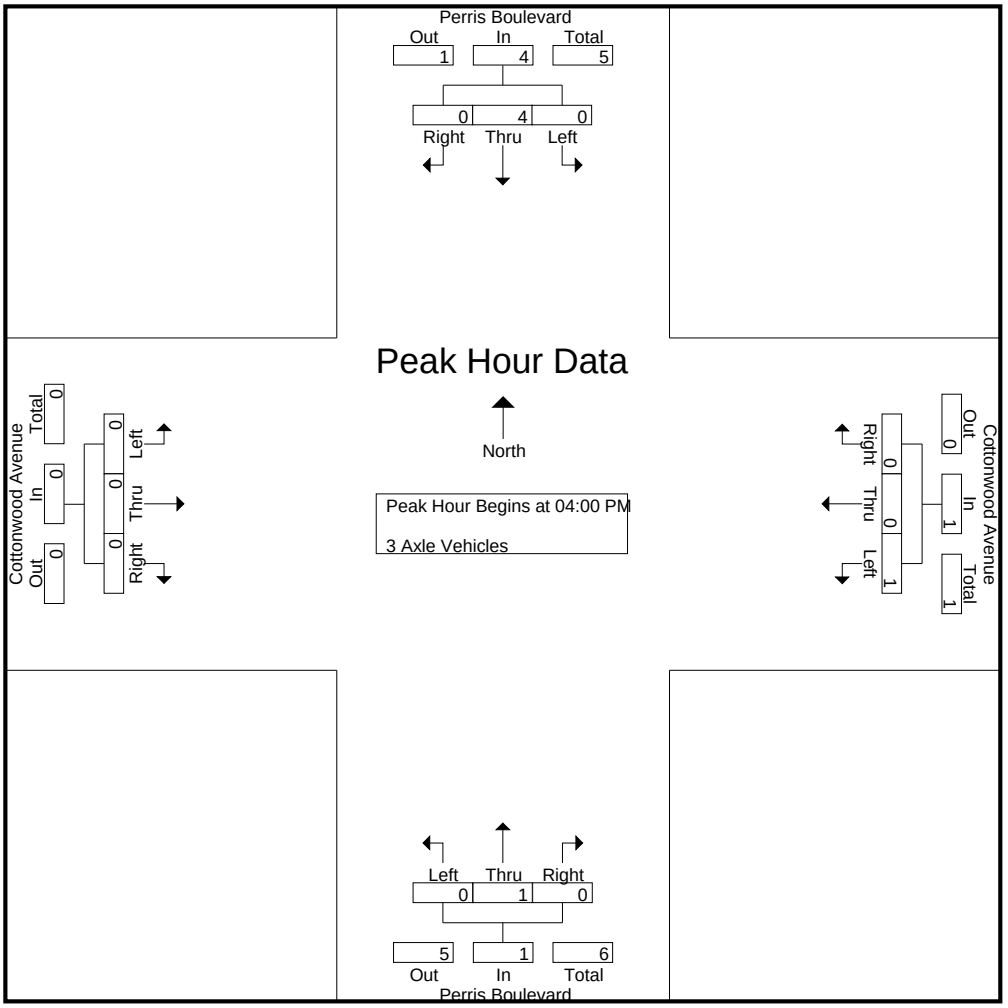
City of Moreno Valley
N/S: Perris Boulevard
E/W: Cottonwood Avenue
Weather: Clear

File Name : 05_MRV_Perris_Cottonwood PM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	**1**	0	**1**	0	0	0	0	0	**1**	0	**1**	0	0	0	0
+15 mins.	0	1	0	1	**1**	0	0	**1**	0	0	0	0	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	4	0	4	1	0	0	1	0	1	0	1	0	0	0	0
% App. Total	0	100	0		100	0	0		0	100	0		0	0	0	
PHF	.000	1.000	.000	1.000	.250	.000	.000	.250	.000	.250	.000	.250	.000	.000	.000	.000

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Cottonwood Avenue
Weather: Clear

File Name : 05_MRV_Perris_Cottonwood PM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Perris Boulevard Southbound				Cottonwood Avenue Westbound				Perris Boulevard Northbound				Cottonwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
04:15 PM	0	6	0	6	0	0	0	0	0	1	0	1	0	0	0	0	7
04:30 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
04:45 PM	0	2	0	2	0	0	0	0	1	1	0	2	0	0	0	0	4
Total	0	12	0	12	0	0	0	0	1	4	0	5	0	0	0	0	17
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:45 PM	0	2	0	2	0	0	0	0	0	3	0	3	0	0	0	0	5
Total	0	4	0	4	0	0	0	0	0	5	0	5	0	0	0	0	9
Grand Total	0	16	0	16	0	0	0	0	1	9	0	10	0	0	0	0	26
Apprch %	0	100	0		0	0	0		10	90	0		0	0	0		
Total %	0	61.5	0	61.5	0	0	0	0	3.8	34.6	0	38.5	0	0	0	0	

	Perris Boulevard Southbound				Cottonwood Avenue Westbound				Perris Boulevard Northbound				Cottonwood Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	2	0	2	0	0	0	0	0	**1**	0	1	0	0	0	0	3
04:15 PM	0	**6**	0	**6**	0	0	0	0	0	1	0	1	0	0	0	0	**7**
04:30 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
04:45 PM	0	2	0	2	0	0	0	0	**1**	1	0	**2**	0	0	0	0	4
Total Volume	0	12	0	12	0	0	0	0	1	4	0	5	0	0	0	0	17
% App. Total	0	100	0		0	0	0		20	80	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.250	1.00	.000	.625	.000	.000	.000	.000	.607

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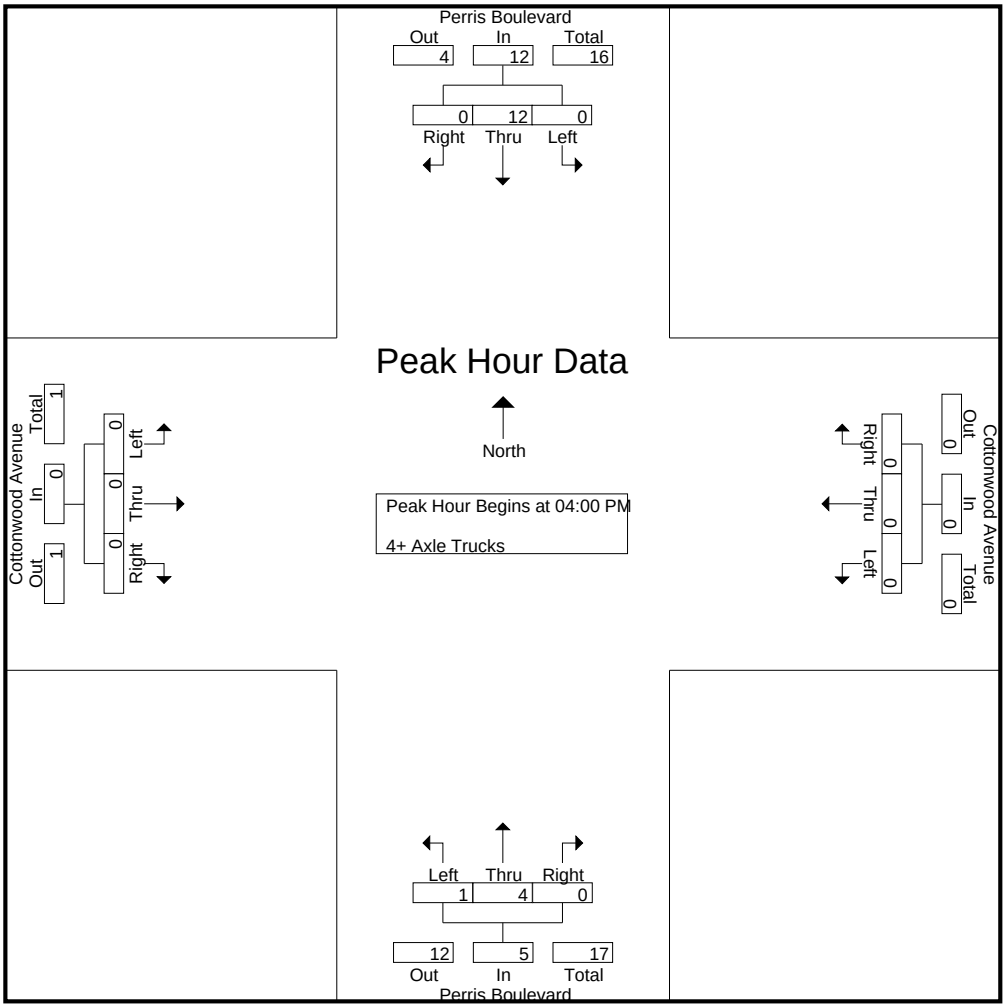
City of Moreno Valley
N/S: Perris Boulevard
E/W: Cottonwood Avenue
Weather: Clear

File Name : 05_MRV_Perris_Cottonwood PM
Site Code : 00319397
Start Date : 5/23/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	2	0	2	0	0	0	0	0	**1**	0	1	0	0	0	0
+15 mins.	0	**6**	0	**6**	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	2	0	2	0	0	0	0	**1**	1	0	**2**	0	0	0	0
Total Volume	0	12	0	12	0	0	0	0	1	4	0	5	0	0	0	0
% App. Total	0	100	0		0	0	0		20	80	0		0	0	0	
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.250	1.000	.000	.625	.000	.000	.000	.000

Location: Moreno Valley
N/S: Perris Boulevard
E/W: Cottonwood Avenue

Date: 5/23/2019
Day: Thursday

PEDESTRIANS

	North Leg Perris Boulevard	East Leg Cottonwood Avenue	South Leg Perris Boulevard	West Leg Cottonwood Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	2	0	0	0	2
7:15 AM	2	1	0	0	3
7:30 AM	1	1	3	4	9
7:45 AM	0	0	0	2	2
8:00 AM	0	0	0	1	1
8:15 AM	0	2	0	0	2
8:30 AM	0	0	2	1	3
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	5	4	5	8	22

	North Leg Perris Boulevard	East Leg Cottonwood Avenue	South Leg Perris Boulevard	West Leg Cottonwood Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	1	2	0	1	4
4:15 PM	0	0	0	1	1
4:30 PM	2	0	2	1	5
4:45 PM	2	1	2	0	5
5:00 PM	0	0	0	2	2
5:15 PM	0	2	0	2	4
5:30 PM	0	2	0	1	3
5:45 PM	0	2	0	0	2
TOTAL VOLUMES:	5	9	4	8	26

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Corona, CA 92878
951-268-6268

Location: Moreno Valley
N/S: Perris Boulevard
E/W: Cottonwood Avenue

Date: 5/23/2019
Day: Thursday

BICYCLES

	Southbound Perris Boulevard			Westbound Cottonwood Avenue			Northbound Perris Boulevard			Eastbound Cottonwood Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES:	0	1	0	0	0	0	0	0	0	0	0	0	1

	Southbound Perris Boulevard			Westbound Cottonwood Avenue			Northbound Perris Boulevard			Eastbound Cottonwood Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	3	0	0	1	0	0	0	0	0	0	0	4
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	1	1	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:15 PM	0	1	0	0	0	0	0	0	0	0	1	0	2
5:30 PM	0	1	1	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	6	1	0	1	0	1	1	0	0	2	0	12

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Counts Unlimited, Inc.

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Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Moreno Valley
Perris Boulevard
B/ Eucalyptus Avneue - Atwood Avenue
24 Hour Directional Volume Count

MRV001
Site Code: 003-19397

Start Time	5/23/2019 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		38	223			60	196				
12:15		39	231			40	197				
12:30		43	254			40	228				
12:45		39	227	159	935	33	204	173	825	332	1760
01:00		25	241			35	232				
01:15		22	253			32	240				
01:30		28	213			26	201				
01:45		25	276	100	983	33	211	126	884	226	1867
02:00		31	**281**			24	227				
02:15		24	**301**			26	277				
02:30		23	**318**			21	281				
02:45		21	**296**	99	1196	27	284	98	1069	197	2265
03:00		35	264			25	303				
03:15		53	256			22	280				
03:30		67	273			30	284				
03:45		78	259	233	1052	31	**304**	108	1171	341	2223
04:00		109	221			37	**305**				
04:15		122	221			59	**301**				
04:30		124	224			81	**306**				
04:45		145	253	500	919	49	268	226	1180	726	2099
05:00		171	244			63	282				
05:15		174	207			82	268				
05:30		188	191			129	336				
05:45		169	197	702	839	102	288	376	1174	1078	2013
06:00		232	215			100	241				
06:15		198	211			109	267				
06:30		220	190			107	254				
06:45		236	214	886	830	126	239	442	1001	1328	1831
07:00		217	196			133	237				
07:15		**272**	191			**212**	189				
07:30		**259**	202			**285**	182				
07:45		**266**	158	1014	747	**258**	196	888	804	1902	1551
08:00		**297**	176			**193**	194				
08:15		228	149			173	198				
08:30		235	144			151	171				
08:45		244	131	1004	600	165	180	682	743	1686	1343
09:00		213	145			146	176				
09:15		200	123			169	159				
09:30		198	105			131	165				
09:45		210	106	821	479	192	129	638	629	1459	1108
10:00		191	112			146	148				
10:15		206	96			177	101				
10:30		196	76			164	126				
10:45		221	107	814	391	185	91	672	466	1486	857
11:00		213	68			163	102				
11:15		234	58			189	87				
11:30		236	44			176	68				
11:45		202	43	885	213	207	61	735	318	1620	531
Total		7217	9184	7217	9184	5164	10264	5164	10264	12381	19448
Combined Total		16401		16401		15428		15428		31829	
AM Peak	-	07:15	-	-	-	07:15	-	-	-	-	-
Vol.	-	1094	-	-	-	948	-	-	-	-	-
P.H.F.		0.921				0.832					
PM Peak	-	-	02:00	-	-	-	03:45	-	-	-	-
Vol.	-	-	1196	-	-	-	1216	-	-	-	-
P.H.F.			0.940				0.993				
Percentage		44.0%	56.0%			33.5%	66.5%				
ADT/AADT		ADT 31,829		AADT 31,829							

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City of Moreno Valley
Perris Boulevard
B/ Atwood Avenue - Auto Center Drive
24 Hour Directional Volume Count

MRV002
Site Code: 003-19397

Start Time	5/23/2019 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		33	223			66	204				
12:15		42	222			39	174				
12:30		38	240			36	231				
12:45		41	216	154	901	37	196	178	805	332	1706
01:00		24	222			37	228				
01:15		22	250			25	232				
01:30		27	204			32	193				
01:45		25	268	98	944	27	205	121	858	219	1802
02:00		30	**274**			28	230				
02:15		24	**291**			27	266				
02:30		22	**316**			19	284				
02:45		23	**286**	99	1167	28	270	102	1050	201	2217
03:00		33	250			26	309				
03:15		51	259			21	252				
03:30		67	245			30	284				
03:45		72	247	223	1001	32	275	109	1120	332	2121
04:00		103	225			35	304				
04:15		113	213			53	274				
04:30		113	218			74	313				
04:45		146	245	475	901	57	255	219	1146	694	2047
05:00		160	245			58	**264**				
05:15		163	200			83	**287**				
05:30		175	182			133	**312**				
05:45		166	199	664	826	98	**306**	372	1169	1036	1995
06:00		211	207			98	232				
06:15		197	208			104	263				
06:30		211	186			115	242				
06:45		228	208	847	809	123	245	440	982	1287	1791
07:00		208	183			129	230				
07:15		**270**	176			**218**	191				
07:30		**260**	191			**283**	180				
07:45		**257**	143	995	693	**254**	184	884	785	1879	1478
08:00		**280**	162			**182**	195				
08:15		218	148			182	197				
08:30		233	133			153	185				
08:45		244	124	975	567	160	170	677	747	1652	1314
09:00		201	145			145	160				
09:15		200	120			164	173				
09:30		194	106			135	150				
09:45		193	103	788	474	187	130	631	613	1419	1087
10:00		185	110			148	143				
10:15		215	96			159	111				
10:30		187	74			167	110				
10:45		210	99	797	379	178	87	652	451	1449	830
11:00		201	71			171	104				
11:15		221	57			173	84				
11:30		234	44			172	64				
11:45		206	43	862	215	207	57	723	309	1585	524
Total		6977	8877	6977	8877	5108	10035	5108	10035	12085	18912
Combined Total		15854		15854		15143		15143		30997	
AM Peak	-	07:15	-	-	-	07:15	-	-	-	-	-
Vol.	-	1067	-	-	-	937	-	-	-	-	-
P.H.F.		0.953				0.828					
PM Peak	-	-	02:00	-	-	-	05:00	-	-	-	-
Vol.	-	-	1167	-	-	-	1169	-	-	-	-
P.H.F.			0.923				0.934				
Percentage		44.0%	56.0%			33.7%	66.3%				
ADT/AADT		ADT 30,997		AADT 30,997							

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City of Moreno Valley
Perris Boulevard
B/ Auto Center Drive - Dracaea Avenue
24 Hour Directional Volume Count

MRV003
Site Code: 003-19397

Start Time	5/23/2019 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		32	215			65	212				
12:15		40	223			43	181				
12:30		38	234			35	236				
12:45		39	197	149	869	36	207	179	836	328	1705
01:00		23	227			36	222				
01:15		23	232			26	233				
01:30		24	209			33	201				
01:45		19	259	89	927	27	206	122	862	211	1789
02:00		32	**267**			30	231				
02:15		22	**284**			27	270				
02:30		20	**301**			18	271				
02:45		19	**295**	93	1147	26	258	101	1030	194	2177
03:00		32	252			29	305				
03:15		54	251			22	263				
03:30		61	223			30	291				
03:45		79	247	226	973	35	277	116	1136	342	2109
04:00		103	210			33	295				
04:15		113	214			52	261				
04:30		114	218			71	315				
04:45		145	226	475	868	64	265	220	1136	695	2004
05:00		169	242			59	**280**				
05:15		166	199			75	**272**				
05:30		177	164			135	**294**				
05:45		167	212	679	817	101	**307**	370	1153	1049	1970
06:00		220	206			101	252				
06:15		189	206			102	258				
06:30		226	176			113	232				
06:45		229	215	864	803	125	244	441	986	1305	1789
07:00		216	178			132	237				
07:15		**256**	185			**214**	192				
07:30		**261**	182			**284**	173				
07:45		**255**	146	988	691	**235**	186	865	788	1853	1479
08:00		**289**	156			**195**	202				
08:15		226	147			199	185				
08:30		221	146			155	181				
08:45		236	129	972	578	152	179	701	747	1673	1325
09:00		203	138			155	174				
09:15		199	130			173	167				
09:30		196	102			141	148				
09:45		185	105	783	475	180	130	649	619	1432	1094
10:00		174	108			145	144				
10:15		207	100			152	109				
10:30		177	73			170	114				
10:45		213	96	771	377	186	93	653	460	1424	837
11:00		196	72			177	102				
11:15		211	61			183	81				
11:30		230	40			167	65				
11:45		192	45	829	218	189	63	716	311	1545	529
Total		6918	8743	6918	8743	5133	10064	5133	10064	12051	18807
Combined Total		15661		15661		15197		15197		30858	
AM Peak	-	07:15	-	-	-	07:15	-	-	-	-	-
Vol.	-	1061	-	-	-	928	-	-	-	-	-
P.H.F.		0.918				0.817					
PM Peak	-	-	02:00	-	-	-	05:00	-	-	-	-
Vol.	-	-	1147	-	-	-	1153	-	-	-	-
P.H.F.			0.953				0.915				
Percentage		44.2%	55.8%			33.8%	66.2%				
ADT/AADT		ADT 30,858		AADT 30,858							

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City of Moreno Valley
Perris Boulevard
B/ Dracaea Avenue - Cottonwood Avenue
24 Hour Directional Volume Count

MRV004
Site Code: 003-19397

Start Time	5/23/2019 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		37	225			53	201				
12:15		35	213			41	159				
12:30		40	224			38	230				
12:45		34	211	146	873	31	218	163	808	309	1681
01:00		20	218			31	202				
01:15		21	231			21	224				
01:30		26	188			33	200				
01:45		24	**278**	91	915	28	188	113	814	204	1729
02:00		29	**270**			29	219				
02:15		24	**286**			24	**274**				
02:30		18	**319**			17	**269**				
02:45		20	253	91	1128	23	**251**	93	1013	184	2141
03:00		35	255			27	**294**				
03:15		39	229			19	236				
03:30		60	250			32	257				
03:45		74	264	208	998	34	270	112	1057	320	2055
04:00		92	213			34	276				
04:15		103	207			49	249				
04:30		99	231			78	281				
04:45		133	240	427	891	64	258	225	1064	652	1955
05:00		142	218			56	266				
05:15		152	188			85	267				
05:30		166	181			141	282				
05:45		147	178	607	765	104	273	386	1088	993	1853
06:00		193	206			105	235				
06:15		173	197			106	242				
06:30		184	159			109	229				
06:45		229	192	779	754	112	222	432	928	1211	1682
07:00		201	194			129	224				
07:15		**250**	164			**208**	185				
07:30		**251**	182			**264**	170				
07:45		**247**	151	949	691	**237**	175	838	754	1787	1445
08:00		**258**	152			**202**	187				
08:15		210	132			187	173				
08:30		220	134			159	163				
08:45		216	125	904	543	143	165	691	688	1595	1231
09:00		199	125			151	157				
09:15		192	117			147	163				
09:30		165	97			135	135				
09:45		192	104	748	443	171	112	604	567	1352	1010
10:00		179	107			140	137				
10:15		188	82			140	103				
10:30		185	71			165	112				
10:45		213	93	765	353	175	84	620	436	1385	789
11:00		200	69			164	97				
11:15		208	57			177	75				
11:30		229	42			160	65				
11:45		195	42	832	210	177	57	678	294	1510	504
Total		6547	8564	6547	8564	4955	9511	4955	9511	11502	18075
Combined Total		15111		15111		14466		14466		29577	
AM Peak	-	07:15	-	-	-	07:15	-	-	-	-	-
Vol.	-	1006	-	-	-	911	-	-	-	-	-
P.H.F.		0.975				0.863					
PM Peak	-	-	01:45	-	-	-	02:15	-	-	-	-
Vol.	-	-	1153	-	-	-	1088	-	-	-	-
P.H.F.			0.904				0.925				
Percentage		43.3%	56.7%			34.3%	65.7%				
ADT/AADT		ADT 29,577		AADT 29,577							

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City of Moreno Valley
Dracaea Avenue
B/ Peris Boulevard - Project Driveway 2
24 Hour Directional Volume Count

MRV005
Site Code: 003-19397

Start Time	5/23/2019 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		19	40			9	31				
12:15		10	44			10	37				
12:30		7	39			10	53				
12:45		4	25	40	148	3	48	32	169	72	317
01:00		7	28			3	34				
01:15		1	30			5	40				
01:30		6	28			4	36				
01:45		5	42	19	128	1	32	13	142	32	270
02:00		4	49			2	26				
02:15		4	35			3	43				
02:30		5	36			2	**56**				
02:45		2	45	15	165	1	**53**	8	178	23	343
03:00		4	51			3	**51**				
03:15		4	46			15	**53**				
03:30		7	45			14	33				
03:45		5	39	20	181	9	29	41	166	61	347
04:00		7	53			15	31				
04:15		5	42			20	38				
04:30		3	**49**			19	33				
04:45		4	**53**	19	197	20	39	74	141	93	338
05:00		9	**46**			29	37				
05:15		4	**52**			20	35				
05:30		13	42			33	34				
05:45		6	55	32	195	29	48	111	154	143	349
06:00		8	51			27	33				
06:15		5	43			32	40				
06:30		7	46			32	35				
06:45		16	36	36	176	29	34	120	142	156	318
07:00		14	37			30	40				
07:15		**23**	38			**46**	35				
07:30		**32**	27			**58**	20				
07:45		**23**	30	92	132	**59**	32	193	127	285	259
08:00		**23**	35			**61**	30				
08:15		14	30			36	26				
08:30		20	36			37	27				
08:45		16	32	73	133	33	19	167	102	240	235
09:00		19	32			39	28				
09:15		29	25			36	23				
09:30		19	26			47	13				
09:45		21	22	88	105	21	13	143	77	231	182
10:00		18	39			21	19				
10:15		14	18			29	16				
10:30		15	21			29	7				
10:45		28	19	75	97	35	14	114	56	189	153
11:00		14	12			34	9				
11:15		25	13			27	6				
11:30		25	6			28	8				
11:45		28	11	92	42	20	10	109	33	201	75
Total		601	1699	601	1699	1125	1487	1125	1487	1726	3186
Combined Total		2300		2300		2612		2612		4912	
AM Peak	-	07:15	-	-	-	07:15	-	-	-	-	-
Vol.	-	101	-	-	-	224	-	-	-	-	-
P.H.F.		0.789				0.918					
PM Peak	-	-	04:30	-	-	-	02:30	-	-	-	-
Vol.	-	-	200	-	-	-	213	-	-	-	-
P.H.F.			0.943				0.951				
Percentage		26.1%	73.9%			43.1%	56.9%				
ADT/AADT		ADT 4,912		AADT 4,912							

APPENDIX C:

VOLUME DEVELOPMENT WORKSHEETS

Table C-1 - Existing Peak Hour PCE Volume Summary

	AM Peak Hour				PM Peak Hour			
	Existing Without Project	Net Project Trips	Pass-by Trips	Existing With Project	Existing Without Project	Net Project Trips	Pass-by Trips	Existing With Project
1 Perris Boulevard/Eucalyptus Avenue								
NBL	50	16	0	66	51	10	0	61
NBT	1,002	8	0	1,010	978	5	0	983
NBR	58	16	0	74	59	10	0	69
SBL	72	0	0	72	97	0	0	97
SBT	1,006	8	0	1,014	1,063	5	0	1,068
SBR	32	0	0	32	45	0	0	45
EBL	22	0	0	22	51	0	0	51
EBT	73	0	0	73	189	0	0	189
EBR	56	17	0	73	79	10	0	89
WBL	83	17	0	100	52	10	0	62
WBT	217	0	0	217	127	0	0	127
WBR	194	0	0	194	108	0	0	108
North Leg								
Approach	1,110	8	0	1,118	1,205	5	0	1,210
Departure	1,218	8	0	1,226	1,137	5	0	1,142
Total	2,328	16	0	2,344	2,342	10	0	2,352
South Leg								
Approach	1,110	40	0	1,150	1,088	25	0	1,113
Departure	1,145	42	0	1,187	1,194	25	0	1,219
Total	2,255	82	0	2,337	2,282	50	0	2,332
East Leg								
Approach	494	17	0	511	287	10	0	297
Departure	203	16	0	219	345	10	0	355
Total	697	33	0	730	632	20	0	652
West Leg								
Approach	151	17	0	168	319	10	0	329
Departure	299	16	0	315	223	10	0	233
Total	450	33	0	483	542	20	0	562
Total Approaches								
Approach	2,865	82	0	2,947	2,899	50	0	2,949
Departure	2,865	82	0	2,947	2,899	50	0	2,949
Total	5,730	164	0	5,894	5,798	100	0	5,898

Table C-1 - Existing Peak Hour PCE Volume Summary

	AM Peak Hour				PM Peak Hour			
	Existing Without Project	Net Project Trips	Pass-by Trips	Existing With Project	Existing Without Project	Net Project Trips	Pass-by Trips	Existing With Project
2 Perris Boulevard/Atwood Avenue								
NBL	52	8	0	60	43	5	0	48
NBT	1,067	24	0	1,091	1,059	15	0	1,074
NBR	3	0	0	3	1	0	0	1
SBL	16	25	21	62	42	15	22	79
SBT	1,135	17	-21	1,131	1,120	10	-22	1,108
SBR	16	0	0	16	15	0	0	15
EBL	13	0	0	13	27	0	0	27
EBT	1	0	0	1	1	0	0	1
EBR	37	8	0	45	36	5	0	41
WBL	4	0	0	4	3	0	0	3
WBT	2	0	0	2	1	0	0	1
WBR	9	16	0	25	13	10	0	23
North Leg								
Approach	1,167	42	0	1,209	1,177	25	0	1,202
Departure	1,089	40	0	1,129	1,099	25	0	1,124
Total	2,256	82	0	2,338	2,276	50	0	2,326
South Leg								
Approach	1,122	32	0	1,154	1,103	20	0	1,123
Departure	1,176	25	-21	1,180	1,159	15	-22	1,152
Total	2,298	57	-21	2,334	2,262	35	-22	2,275
East Leg								
Approach	15	16	0	31	17	10	0	27
Departure	20	25	21	66	44	15	22	81
Total	35	41	21	97	61	25	22	108
West Leg								
Approach	51	8	0	59	64	5	0	69
Departure	70	8	0	78	59	5	0	64
Total	121	16	0	137	123	10	0	133
Total Approaches								
Approach	2,355	98	0	2,453	2,361	60	0	2,421
Departure	2,355	98	0	2,453	2,361	60	0	2,421
Total	4,710	196	0	4,906	4,722	120	0	4,842

Table C-1 - Existing Peak Hour PCE Volume Summary

	AM Peak Hour				PM Peak Hour			
	Existing Without Project	Net Project Trips	Pass-by Trips	Existing With Project	Existing Without Project	Net Project Trips	Pass-by Trips	Existing With Project
3 Perris Boulevard/Auto Center Driveway - Project Driveway 1								
NBL	0	0	0	0	0	0	0	0
NBT	1,137	0	-19	1,118	1,105	0	-20	1,085
NBR	0	0	19	19	0	0	20	20
SBL	0	0	0	0	0	0	0	0
SBT	1,157	25	-21	1,161	1,151	15	-22	1,144
SBR	7	0	0	7	2	0	0	2
EBL	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0
EBR	1	0	0	1	0	0	0	0
WBL	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0
WBR	0	32	18	50	0	20	19	39
North Leg								
Approach	1,164	25	-21	1,168	1,153	15	-22	1,146
Departure	1,137	32	-1	1,168	1,105	20	-1	1,124
Total	2,301	57	-22	2,336	2,258	35	-23	2,270
South Leg								
Approach	1,137	0	0	1,137	1,105	0	0	1,105
Departure	1,158	25	-21	1,162	1,151	15	-22	1,144
Total	2,295	25	-21	2,299	2,256	15	-22	2,249
East Leg								
Approach	0	32	18	50	0	20	19	39
Departure	0	0	19	19	0	0	20	20
Total	0	32	37	69	0	20	39	59
West Leg								
Approach	1	0	0	1	0	0	0	0
Departure	7	0	0	7	2	0	0	2
Total	8	0	0	8	2	0	0	2
Total Approaches								
Approach	2,302	57	-3	2,356	2,258	35	-3	2,290
Departure	2,302	57	-3	2,356	2,258	35	-3	2,290
Total	4,604	114	-6	4,712	4,516	70	-6	4,580

Table C-1 - Existing Peak Hour PCE Volume Summary

	AM Peak Hour				PM Peak Hour			
	Existing Without Project	Net Project Trips	Pass-by Trips	Existing With Project	Existing Without Project	Net Project Trips	Pass-by Trips	Existing With Project
4 Perris Boulevard/Dracaea Avenue								
NBL	50	0	-1	49	29	0	-1	28
NBT	1,006	0	0	1,006	988	0	0	988
NBR	20	50	1	71	36	31	1	68
SBL	33	25	-1	57	47	15	-1	61
SBT	1,039	0	-19	1,020	1,036	0	-20	1,016
SBR	86	0	-2	84	68	0	-1	67
EBL	64	0	0	64	69	0	0	69
EBT	71	33	1	105	102	21	0	123
EBR	52	0	-1	51	22	0	0	22
WBL	70	48	19	137	32	30	19	81
WBT	96	32	2	130	73	20	2	95
WBR	67	0	0	67	47	0	0	47
North Leg								
Approach	1,158	25	-22	1,161	1,151	15	-22	1,144
Departure	1,137	0	0	1,137	1,104	0	0	1,104
Total	2,295	25	-22	2,298	2,255	15	-22	2,248
South Leg								
Approach	1,076	50	0	1,126	1,053	31	0	1,084
Departure	1,161	48	-1	1,208	1,090	30	-1	1,119
Total	2,237	98	-1	2,334	2,143	61	-1	2,203
East Leg								
Approach	233	80	21	334	152	50	21	223
Departure	124	108	1	233	185	67	0	252
Total	357	188	22	567	337	117	21	475
West Leg								
Approach	187	33	0	220	193	21	0	214
Departure	232	32	-1	263	170	20	0	190
Total	419	65	-1	483	363	41	0	404
Total Approaches								
Approach	2,654	188	-1	2,841	2,549	117	-1	2,665
Departure	2,654	188	-1	2,841	2,549	117	-1	2,665
Total	5,308	376	-2	5,682	5,098	234	-2	5,330

Table C-1 - Existing Peak Hour PCE Volume Summary

	AM Peak Hour				PM Peak Hour			
	Existing Without Project	Net Project Trips	Pass-by Trips	Existing With Project	Existing Without Project	Net Project Trips	Pass-by Trips	Existing With Project
5 Perris Boulevard/Cottonwood Avenue								
NBL	59	0	0	59	64	0	0	64
NBT	870	17	0	887	931	10	0	941
NBR	49	0	0	49	31	0	0	31
SBL	131	16	0	147	98	10	0	108
SBT	930	16	0	946	964	10	0	974
SBR	109	16	0	125	83	10	0	93
EBL	87	17	0	104	92	10	0	102
EBT	224	0	0	224	197	0	0	197
EBR	54	0	0	54	75	0	0	75
WBL	61	0	0	61	23	0	0	23
WBT	276	0	0	276	134	0	0	134
WBR	159	17	0	176	87	10	0	97
North Leg								
Approach	1,170	48	0	1,218	1,145	30	0	1,175
Departure	1,116	51	0	1,167	1,110	30	0	1,140
Total	2,286	99	0	2,385	2,255	60	0	2,315
South Leg								
Approach	978	17	0	995	1,026	10	0	1,036
Departure	1,045	16	0	1,061	1,062	10	0	1,072
Total	2,023	33	0	2,056	2,088	20	0	2,108
East Leg								
Approach	496	17	0	513	244	10	0	254
Departure	404	16	0	420	326	10	0	336
Total	900	33	0	933	570	20	0	590
West Leg								
Approach	365	17	0	382	364	10	0	374
Departure	444	16	0	460	281	10	0	291
Total	809	33	0	842	645	20	0	665
Total Approaches								
Approach	3,009	99	0	3,108	2,779	60	0	2,839
Departure	3,009	99	0	3,108	2,779	60	0	2,839
Total	6,018	198	0	6,216	5,558	120	0	5,678

Table C-1 - Existing Peak Hour PCE Volume Summary

	AM Peak Hour				PM Peak Hour			
	Existing Without Project	Net Project Trips	Pass-by Trips	Existing With Project	Existing Without Project	Net Project Trips	Pass-by Trips	Existing With Project
6 Project Driveway 2/Dracaea Avenue								
NBL	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0
SBL	0	32	2	34	0	20	4	24
SBT	0	0	0	0	0	0	0	0
SBR	0	80	25	105	0	51	24	75
EBL	0	107	3	110	0	67	4	71
EBT	124	0	-2	122	185	0	-4	181
EBR	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0
WBT	233	0	-4	229	152	0	-3	149
WBR	0	33	4	37	0	21	3	24
North Leg								
Approach	0	112	27	139	0	71	28	99
Departure	0	140	7	147	0	88	7	95
Total	0	252	34	286	0	159	35	194
South Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
East Leg								
Approach	233	33	0	266	152	21	0	173
Departure	124	32	0	156	185	20	0	205
Total	357	65	0	422	337	41	0	378
West Leg								
Approach	124	107	1	232	185	67	0	252
Departure	233	80	21	334	152	51	21	224
Total	357	187	22	566	337	118	21	476
Total Approaches								
Approach	357	252	28	637	337	159	28	524
Departure	357	252	28	637	337	159	28	524
Total	714	504	56	1,274	674	318	56	1,048

Table C-1 - Existing Peak Hour PCE Volume Summary

	AM Peak Hour				PM Peak Hour			
	Existing Without Project	Net Project Trips	Pass-by Trips	Existing With Project	Existing Without Project	Net Project Trips	Pass-by Trips	Existing With Project
7 Sunset Lane/Atwood Avenue								
NBL	2	16	0	18	1	10	0	11
NBT	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0
EBT	19	0	0	19	42	0	0	42
EBR	1	25	21	47	2	15	22	39
WBL	0	0	0	0	0	0	0	0
WBT	13	0	0	13	16	0	0	16
WBR	0	0	0	0	0	0	0	0
North Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
South Leg								
Approach	2	16	0	18	1	10	0	11
Departure	1	25	21	47	2	15	22	39
Total	3	41	21	65	3	25	22	50
East Leg								
Approach	13	0	0	13	16	0	0	16
Departure	19	0	0	19	42	0	0	42
Total	32	0	0	32	58	0	0	58
West Leg								
Approach	20	25	21	66	44	15	22	81
Departure	15	16	0	31	17	10	0	27
Total	35	41	21	97	61	25	22	108
Total Approaches								
Approach	35	41	21	97	61	25	22	108
Departure	35	41	21	97	61	25	22	108
Total	70	82	42	194	122	50	44	216

Table C-2 - Project Completion (2022) Peak Hour PCE Volume Summary

		AM Peak Hour						
		Existing (2019) PCE	2019-2022 Growth	Cumulative Project Trips	Proj Comp Without Project	Net Project Trips	Pass-by Trips	Proj Comp With Project
1	**Perris Boulevard/Eucalyptus Avenue**							
NBL		50	3	0	53	16	0	69
NBT		1,002	60	115	1,177	8	0	1,185
NBR		58	3	0	61	16	0	77
SBL		72	4	0	76	0	0	76
SBT		1,006	60	48	1,114	8	0	1,122
SBR		32	2	0	34	0	0	34
EBL		22	1	1	24	0	0	24
EBT		73	4	0	77	0	0	77
EBR		56	3	1	60	17	0	77
WBL		83	5	0	88	17	0	105
WBT		217	13	0	230	0	0	230
WBR		194	12	0	206	0	0	206
North Leg								
	Approach	1,110	66	48	1,224	8	0	1,232
	Departure	1,218	73	116	1,407	8	0	1,415
	Total	2,328	139	164	2,631	16	0	2,647
South Leg								
	Approach	1,110	66	115	1,291	40	0	1,331
	Departure	1,145	68	49	1,262	42	0	1,304
	Total	2,255	134	164	2,553	82	0	2,635
East Leg								
	Approach	494	30	0	524	17	0	541
	Departure	203	11	0	214	16	0	230
	Total	697	41	0	738	33	0	771
West Leg								
	Approach	151	8	2	161	17	0	178
	Departure	299	18	0	317	16	0	333
	Total	450	26	2	478	33	0	511
Total Approaches								
	Approach	2,865	170	165	3,200	82	0	3,282
	Departure	2,865	170	165	3,200	82	0	3,282
	Total	5,730	340	330	6,400	164	0	6,564

Table C-2 - Project Completion (2022) Peak Hour PCE Volume Summary

		AM Peak Hour						
		Existing (2019) PCE	2019-2022 Growth	Cumulative Project Trips	Proj Comp Without Project	Net Project Trips	Pass-by Trips	Proj Comp With Project
2	**Perris Boulevard/Atwood Avenue**							
NBL		52	3	0	55	8	0	63
NBT		1,067	64	114	1,245	24	0	1,269
NBR		3	0	0	3	0	0	3
SBL		16	1	0	17	25	21	63
SBT		1,135	68	49	1,252	17	-21	1,248
SBR		16	1	0	17	0	0	17
EBL		13	1	1	15	0	0	15
EBT		1	0	0	1	0	0	1
EBR		37	2	1	40	8	0	48
WBL		4	0	0	4	0	0	4
WBT		2	0	0	2	0	0	2
WBR		9	1	0	10	16	0	26
North Leg								
	Approach	1,167	70	49	1,286	42	0	1,328
	Departure	1,089	66	115	1,270	40	0	1,310
	Total	2,256	136	164	2,556	82	0	2,638
South Leg								
	Approach	1,122	67	114	1,303	32	0	1,335
	Departure	1,176	70	50	1,296	25	-21	1,300
	Total	2,298	137	164	2,599	57	-21	2,635
East Leg								
	Approach	15	1	0	16	16	0	32
	Departure	20	1	0	21	25	21	67
	Total	35	2	0	37	41	21	99
West Leg								
	Approach	51	3	2	56	8	0	64
	Departure	70	4	0	74	8	0	82
	Total	121	7	2	130	16	0	146
Total Approaches								
	Approach	2,355	141	165	2,661	98	0	2,759
	Departure	2,355	141	165	2,661	98	0	2,759
	Total	4,710	282	330	5,322	196	0	5,518

Table C-2 - Project Completion (2022) Peak Hour PCE Volume Summary

	AM Peak Hour						
	Existing (2019) PCE	2019-2022 Growth	Cumulative Project Trips	Proj Comp Without Project	Net Project Trips	Pass-by Trips	Proj Comp With Project
3 Perris Boulevard/Auto Center Driveway - Project Driveway 1							
NBL	0	0	0	0	0	0	0
NBT	1,137	68	114	1,319	0	-19	1,300
NBR	0	0	0	0	0	19	19
SBL	0	0	0	0	0	0	0
SBT	1,157	69	50	1,276	25	-21	1,280
SBR	7	0	0	7	0	0	7
EBL	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0
EBR	1	0	0	1	0	0	1
WBL	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0
WBR	0	0	0	0	32	18	50
North Leg							
Approach	1,164	69	50	1,283	25	-21	1,287
Departure	1,137	68	114	1,319	32	-1	1,350
Total	2,301	137	164	2,602	57	-22	2,637
South Leg							
Approach	1,137	68	114	1,319	0	0	1,319
Departure	1,158	69	50	1,277	25	-21	1,281
Total	2,295	137	164	2,596	25	-21	2,600
East Leg							
Approach	0	0	0	0	32	18	50
Departure	0	0	0	0	0	19	19
Total	0	0	0	0	32	37	69
West Leg							
Approach	1	0	0	1	0	0	1
Departure	7	0	0	7	0	0	7
Total	8	0	0	8	0	0	8
Total Approaches							
Approach	2,302	137	164	2,603	57	-3	2,657
Departure	2,302	137	164	2,603	57	-3	2,657
Total	4,604	274	328	5,206	114	-6	5,314

Table C-2 - Project Completion (2022) Peak Hour PCE Volume Summary

		AM Peak Hour						
		Existing (2019) PCE	2019-2022 Growth	Cumulative Project Trips	Proj Comp Without Project	Net Project Trips	Pass-by Trips	Proj Comp With Project
4	**Perris Boulevard/Dracaea Avenue**							
NBL		50	3	0	53	0	-1	52
NBT		1,006	60	113	1,179	0	0	1,179
NBR		20	1	0	21	50	1	72
SBL		33	2	0	35	25	-1	59
SBT		1,039	62	50	1,151	0	-19	1,132
SBR		86	5	0	91	0	-2	89
EBL		64	4	1	69	0	0	69
EBT		71	4	0	75	33	1	109
EBR		52	3	0	55	0	-1	54
WBL		70	4	0	74	48	19	141
WBT		96	6	0	102	32	2	136
WBR		67	4	0	71	0	0	71
North Leg								
	Approach	1,158	69	50	1,277	25	-22	1,280
	Departure	1,137	68	114	1,319	0	0	1,319
	Total	2,295	137	164	2,596	25	-22	2,599
South Leg								
	Approach	1,076	64	113	1,253	50	0	1,303
	Departure	1,161	69	50	1,280	48	-1	1,327
	Total	2,237	133	163	2,533	98	-1	2,630
East Leg								
	Approach	233	14	0	247	80	21	348
	Departure	124	7	0	131	108	1	240
	Total	357	21	0	378	188	22	588
West Leg								
	Approach	187	11	1	199	33	0	232
	Departure	232	14	0	246	32	-1	277
	Total	419	25	1	445	65	-1	509
Total Approaches								
	Approach	2,654	158	164	2,976	188	-1	3,163
	Departure	2,654	158	164	2,976	188	-1	3,163
	Total	5,308	316	328	5,952	376	-2	6,326

Table C-2 - Project Completion (2022) Peak Hour PCE Volume Summary

		AM Peak Hour						
		Existing (2019) PCE	2019-2022 Growth	Cumulative Project Trips	Proj Comp Without Project	Net Project Trips	Pass-by Trips	Proj Comp With Project
5	**Perris Boulevard/Cottonwood Avenue**							
NBL		59	4	0	63	0	0	63
NBT		870	52	113	1,035	17	0	1,052
NBR		49	3	0	52	0	0	52
SBL		131	8	0	139	16	0	155
SBT		930	56	50	1,036	16	0	1,052
SBR		109	7	0	116	16	0	132
EBL		87	5	0	92	17	0	109
EBT		224	13	0	237	0	0	237
EBR		54	3	0	57	0	0	57
WBL		61	4	0	65	0	0	65
WBT		276	17	0	293	0	0	293
WBR		159	10	0	169	17	0	186
North Leg								
	Approach	1,170	71	50	1,291	48	0	1,339
	Departure	1,116	67	113	1,296	51	0	1,347
	Total	2,286	138	163	2,587	99	0	2,686
South Leg								
	Approach	978	59	113	1,150	17	0	1,167
	Departure	1,045	63	50	1,158	16	0	1,174
	Total	2,023	122	163	2,308	33	0	2,341
East Leg								
	Approach	496	31	0	527	17	0	544
	Departure	404	24	0	428	16	0	444
	Total	900	55	0	955	33	0	988
West Leg								
	Approach	365	21	0	386	17	0	403
	Departure	444	28	0	472	16	0	488
	Total	809	49	0	858	33	0	891
Total Approaches								
	Approach	3,009	182	163	3,354	99	0	3,453
	Departure	3,009	182	163	3,354	99	0	3,453
	Total	6,018	364	326	6,708	198	0	6,906

Table C-2 - Project Completion (2022) Peak Hour PCE Volume Summary

	AM Peak Hour						
	Existing (2019) PCE	2019-2022 Growth	Cumulative Project Trips	Proj Comp Without Project	Net Project Trips	Pass-by Trips	Proj Comp With Project
6 Project Driveway 2/Dracaea Avenue							
NBL	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0
SBL	0	0	0	0	32	2	34
SBT	0	0	0	0	0	0	0
SBR	0	0	0	0	80	25	105
EBL	0	0	0	0	107	3	110
EBT	124	7	0	131	0	-2	129
EBR	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0
WBT	233	14	0	247	0	-4	243
WBR	0	0	0	0	33	4	37
North Leg							
Approach	0	0	0	0	112	27	139
Departure	0	0	0	0	140	7	147
Total	0	0	0	0	252	34	286
South Leg							
Approach	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0
East Leg							
Approach	233	14	0	247	33	0	280
Departure	124	7	0	131	32	0	163
Total	357	21	0	378	65	0	443
West Leg							
Approach	124	7	0	131	107	1	239
Departure	233	14	0	247	80	21	348
Total	357	21	0	378	187	22	587
Total Approaches							
Approach	357	21	0	378	252	28	658
Departure	357	21	0	378	252	28	658
Total	714	42	0	756	504	56	1,316

Table C-2 - Project Completion (2022) Peak Hour PCE Volume Summary

	AM Peak Hour						
	Existing (2019) PCE	2019-2022 Growth	Cumulative Project Trips	Proj Comp Without Project	Net Project Trips	Pass-by Trips	Proj Comp With Project
7 Sunset Lane/Atwood Avenue							
NBL	2	0	0	2	16	0	18
NBT	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0
EBT	19	1	0	20	0	0	20
EBR	1	0	0	1	25	21	47
WBL	0	0	0	0	0	0	0
WBT	13	1	0	14	0	0	14
WBR	0	0	0	0	0	0	0
North Leg							
Approach	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0
South Leg							
Approach	2	0	0	2	16	0	18
Departure	1	0	0	1	25	21	47
Total	3	0	0	3	41	21	65
East Leg							
Approach	13	1	0	14	0	0	14
Departure	19	1	0	20	0	0	20
Total	32	2	0	34	0	0	34
West Leg							
Approach	20	1	0	21	25	21	67
Departure	15	1	0	16	16	0	32
Total	35	2	0	37	41	21	99
Total Approaches							
Approach	35	2	0	37	41	21	99
Departure	35	2	0	37	41	21	99
Total	70	4	0	74	82	42	198

Table C-2 - Project Completion (2022) Peak Hour PCE Volume Summary

		PM Peak Hour						
		Existing (2019) PCE	2019-2022 Growth	Cumulative Project Trips	Proj Comp Without Project	Net Project Trips	Pass-by Trips	Proj Comp With Project
1	**Perris Boulevard/Eucalyptus Avenue**							
NBL		51	3	1	55	10	0	65
NBT		978	59	86	1,123	5	0	1,128
NBR		59	4	0	63	10	0	73
SBL		97	6	0	103	0	0	103
SBT		1,063	64	123	1,250	5	0	1,255
SBR		45	3	1	49	0	0	49
EBL		51	3	0	54	0	0	54
EBT		189	11	0	200	0	0	200
EBR		79	5	0	84	10	0	94
WBL		52	3	0	55	10	0	65
WBT		127	8	0	135	0	0	135
WBR		108	6	0	114	0	0	114
North Leg								
	Approach	1,205	73	124	1,402	5	0	1,407
	Departure	1,137	68	86	1,291	5	0	1,296
	Total	2,342	141	210	2,693	10	0	2,703
South Leg								
	Approach	1,088	66	87	1,241	25	0	1,266
	Departure	1,194	72	123	1,389	25	0	1,414
	Total	2,282	138	210	2,630	50	0	2,680
East Leg								
	Approach	287	17	0	304	10	0	314
	Departure	345	21	0	366	10	0	376
	Total	632	38	0	670	20	0	690
West Leg								
	Approach	319	19	0	338	10	0	348
	Departure	223	14	2	239	10	0	249
	Total	542	33	2	577	20	0	597
Total Approaches								
	Approach	2,899	175	211	3,285	50	0	3,335
	Departure	2,899	175	211	3,285	50	0	3,335
	Total	5,798	350	422	6,570	100	0	6,670

Table C-2 - Project Completion (2022) Peak Hour PCE Volume Summary

		PM Peak Hour						
		Existing (2019) PCE	2019-2022 Growth	Cumulative Project Trips	Proj Comp Without Project	Net Project Trips	Pass-by Trips	Proj Comp With Project
2	**Perris Boulevard/Atwood Avenue**							
NBL		43	3	1	47	5	0	52
NBT		1,059	64	87	1,210	15	0	1,225
NBR		1	0	0	1	0	0	1
SBL		42	3	0	45	15	22	82
SBT		1,120	67	122	1,309	10	-22	1,297
SBR		15	1	1	17	0	0	17
EBL		27	2	0	29	0	0	29
EBT		1	0	0	1	0	0	1
EBR		36	2	0	38	5	0	43
WBL		3	0	0	3	0	0	3
WBT		1	0	0	1	0	0	1
WBR		13	1	0	14	10	0	24
North Leg								
	Approach	1,177	71	123	1,371	25	0	1,396
	Departure	1,099	67	87	1,253	25	0	1,278
	Total	2,276	138	210	2,624	50	0	2,674
South Leg								
	Approach	1,103	67	88	1,258	20	0	1,278
	Departure	1,159	69	122	1,350	15	-22	1,343
	Total	2,262	136	210	2,608	35	-22	2,621
East Leg								
	Approach	17	1	0	18	10	0	28
	Departure	44	3	0	47	15	22	84
	Total	61	4	0	65	25	22	112
West Leg								
	Approach	64	4	0	68	5	0	73
	Departure	59	4	2	65	5	0	70
	Total	123	8	2	133	10	0	143
Total Approaches								
	Approach	2,361	143	211	2,715	60	0	2,775
	Departure	2,361	143	211	2,715	60	0	2,775
	Total	4,722	286	422	5,430	120	0	5,550

Table C-2 - Project Completion (2022) Peak Hour PCE Volume Summary

	PM Peak Hour						
	Existing (2019) PCE	2019-2022 Growth	Cumulative Project Trips	Proj Comp Without Project	Net Project Trips	Pass-by Trips	Proj Comp With Project
3 Perris Boulevard/Auto Center Driveway - Project Driveway 1							
NBL	0	0	0	0	0	0	0
NBT	1,105	66	88	1,259	0	-20	1,239
NBR	0	0	0	0	0	20	20
SBL	0	0	0	0	0	0	0
SBT	1,151	69	122	1,342	15	-22	1,335
SBR	2	0	0	2	0	0	2
EBL	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0
EBR	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0
WBR	0	0	0	0	20	19	39
North Leg							
Approach	1,153	69	122	1,344	15	-22	1,337
Departure	1,105	66	88	1,259	20	-1	1,278
Total	2,258	135	210	2,603	35	-23	2,615
South Leg							
Approach	1,105	66	88	1,259	0	0	1,259
Departure	1,151	69	122	1,342	15	-22	1,335
Total	2,256	135	210	2,601	15	-22	2,594
East Leg							
Approach	0	0	0	0	20	19	39
Departure	0	0	0	0	0	20	20
Total	0	0	0	0	20	39	59
West Leg							
Approach	0	0	0	0	0	0	0
Departure	2	0	0	2	0	0	2
Total	2	0	0	2	0	0	2
Total Approaches							
Approach	2,258	135	210	2,603	35	-3	2,635
Departure	2,258	135	210	2,603	35	-3	2,635
Total	4,516	270	420	5,206	70	-6	5,270

Table C-2 - Project Completion (2022) Peak Hour PCE Volume Summary

		PM Peak Hour						
		Existing (2019) PCE	2019-2022 Growth	Cumulative Project Trips	Proj Comp Without Project	Net Project Trips	Pass-by Trips	Proj Comp With Project
4	**Perris Boulevard/Dracaea Avenue**							
NBL		29	2	0	31	0	-1	30
NBT		988	59	87	1,134	0	0	1,134
NBR		36	2	0	38	31	1	70
SBL		47	3	0	50	15	-1	64
SBT		1,036	62	121	1,219	0	-20	1,199
SBR		68	4	1	73	0	-1	72
EBL		69	4	1	74	0	0	74
EBT		102	6	0	108	21	0	129
EBR		22	1	0	23	0	0	23
WBL		32	2	0	34	30	19	83
WBT		73	4	0	77	20	2	99
WBR		47	3	0	50	0	0	50
North Leg								
	Approach	1,151	69	122	1,342	15	-22	1,335
	Departure	1,104	66	88	1,258	0	0	1,258
	Total	2,255	135	210	2,600	15	-22	2,593
South Leg								
	Approach	1,053	63	87	1,203	31	0	1,234
	Departure	1,090	65	121	1,276	30	-1	1,305
	Total	2,143	128	208	2,479	61	-1	2,539
East Leg								
	Approach	152	9	0	161	50	21	232
	Departure	185	11	0	196	67	0	263
	Total	337	20	0	357	117	21	495
West Leg								
	Approach	193	11	1	205	21	0	226
	Departure	170	10	1	181	20	0	201
	Total	363	21	2	386	41	0	427
Total Approaches								
	Approach	2,549	152	210	2,911	117	-1	3,027
	Departure	2,549	152	210	2,911	117	-1	3,027
	Total	5,098	304	420	5,822	234	-2	6,054

Table C-2 - Project Completion (2022) Peak Hour PCE Volume Summary

		PM Peak Hour						
		Existing (2019) PCE	2019-2022 Growth	Cumulative Project Trips	Proj Comp Without Project	Net Project Trips	Pass-by Trips	Proj Comp With Project
5	**Perris Boulevard/Cottonwood Avenue**							
NBL		64	4	0	68	0	0	68
NBT		931	56	87	1,074	10	0	1,084
NBR		31	2	0	33	0	0	33
SBL		98	6	0	104	10	0	114
SBT		964	58	121	1,143	10	0	1,153
SBR		83	5	0	88	10	0	98
EBL		92	6	0	98	10	0	108
EBT		197	12	0	209	0	0	209
EBR		75	5	0	80	0	0	80
WBL		23	1	0	24	0	0	24
WBT		134	8	0	142	0	0	142
WBR		87	5	0	92	10	0	102
North Leg								
	Approach	1,145	69	121	1,335	30	0	1,365
	Departure	1,110	67	87	1,264	30	0	1,294
	Total	2,255	136	208	2,599	60	0	2,659
South Leg								
	Approach	1,026	62	87	1,175	10	0	1,185
	Departure	1,062	64	121	1,247	10	0	1,257
	Total	2,088	126	208	2,422	20	0	2,442
East Leg								
	Approach	244	14	0	258	10	0	268
	Departure	326	20	0	346	10	0	356
	Total	570	34	0	604	20	0	624
West Leg								
	Approach	364	23	0	387	10	0	397
	Departure	281	17	0	298	10	0	308
	Total	645	40	0	685	20	0	705
Total Approaches								
	Approach	2,779	168	208	3,155	60	0	3,215
	Departure	2,779	168	208	3,155	60	0	3,215
	Total	5,558	336	416	6,310	120	0	6,430

Table C-2 - Project Completion (2022) Peak Hour PCE Volume Summary

	PM Peak Hour						
	Existing (2019) PCE	2019-2022 Growth	Cumulative Project Trips	Proj Comp Without Project	Net Project Trips	Pass-by Trips	Proj Comp With Project
6 Project Driveway 2/Dracaea Avenue							
NBL	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0
SBL	0	0	0	0	20	4	24
SBT	0	0	0	0	0	0	0
SBR	0	0	0	0	51	24	75
EBL	0	0	0	0	67	4	71
EBT	185	11	0	196	0	-4	192
EBR	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0
WBT	152	9	0	161	0	-3	158
WBR	0	0	0	0	21	3	24
North Leg							
Approach	0	0	0	0	71	28	99
Departure	0	0	0	0	88	7	95
Total	0	0	0	0	159	35	194
South Leg							
Approach	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0
East Leg							
Approach	152	9	0	161	21	0	182
Departure	185	11	0	196	20	0	216
Total	337	20	0	357	41	0	398
West Leg							
Approach	185	11	0	196	67	0	263
Departure	152	9	0	161	51	21	233
Total	337	20	0	357	118	21	496
Total Approaches							
Approach	337	20	0	357	159	28	544
Departure	337	20	0	357	159	28	544
Total	674	40	0	714	318	56	1,088

Table C-2 - Project Completion (2022) Peak Hour PCE Volume Summary

	PM Peak Hour						
	Existing (2019) PCE	2019-2022 Growth	Cumulative Project Trips	Proj Comp Without Project	Net Project Trips	Pass-by Trips	Proj Comp With Project
7 Sunset Lane/Atwood Avenue							
NBL	1	0	0	1	10	0	11
NBT	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0
EBT	42	3	0	45	0	0	45
EBR	2	0	0	2	15	22	39
WBL	0	0	0	0	0	0	0
WBT	16	1	0	17	0	0	17
WBR	0	0	0	0	0	0	0
North Leg							
Approach	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0
South Leg							
Approach	1	0	0	1	10	0	11
Departure	2	0	0	2	15	22	39
Total	3	0	0	3	25	22	50
East Leg							
Approach	16	1	0	17	0	0	17
Departure	42	3	0	45	0	0	45
Total	58	4	0	62	0	0	62
West Leg							
Approach	44	3	0	47	15	22	84
Departure	17	1	0	18	10	0	28
Total	61	4	0	65	25	22	112
Total Approaches							
Approach	61	4	0	65	25	22	112
Departure	61	4	0	65	25	22	112
Total	122	8	0	130	50	44	224

Table C-3 - General Plan Build-Out (2040) Peak Hour Volume Summary

	AM Peak Hour				PM Peak Hour			
	GPBO (2040) Without Project	Net Project Trips	Pass-by Trips	GPBO (2040) With Project	GPBO (2040) Without Project	Net Project Trips	Pass-by Trips	GPBO (2040) With Project
1 Perris Boulevard/Eucalyptus Avenue								
NBL	129	16	0	145	147	10	0	157
NBT	1,274	8	0	1,282	1,551	5	0	1,556
NBR	65	16	0	81	88	10	0	98
SBL	90	0	0	90	111	0	0	111
SBT	1,438	8	0	1,446	1,490	5	0	1,495
SBR	92	0	0	92	100	0	0	100
EBL	58	0	0	58	149	0	0	149
EBT	170	0	0	170	516	0	0	516
EBR	150	17	0	167	265	10	0	275
WBL	92	17	0	109	78	10	0	88
WBT	401	0	0	401	301	0	0	301
WBR	216	0	0	216	140	0	0	140
North Leg								
Approach	1,620	8	0	1,628	1,701	5	0	1,706
Departure	1,548	8	0	1,556	1,840	5	0	1,845
Total	3,168	16	0	3,184	3,541	10	0	3,551
South Leg								
Approach	1,468	40	0	1,508	1,786	25	0	1,811
Departure	1,680	42	0	1,722	1,833	25	0	1,858
Total	3,148	82	0	3,230	3,619	50	0	3,669
East Leg								
Approach	709	17	0	726	519	10	0	529
Departure	325	16	0	341	715	10	0	725
Total	1,034	33	0	1,067	1,234	20	0	1,254
West Leg								
Approach	378	17	0	395	930	10	0	940
Departure	622	16	0	638	548	10	0	558
Total	1,000	33	0	1,033	1,478	20	0	1,498
Total Approaches								
Approach	4,175	82	0	4,257	4,936	50	0	4,986
Departure	4,175	82	0	4,257	4,936	50	0	4,986
Total	8,350	164	0	8,514	9,872	100	0	9,972

Table C-3 - General Plan Build-Out (2040) Peak Hour Volume Summary

	AM Peak Hour				PM Peak Hour			
	GPBO (2040) Without Project	Net Project Trips	Pass-by Trips	GPBO (2040) With Project	GPBO (2040) Without Project	Net Project Trips	Pass-by Trips	GPBO (2040) With Project
2 Perris Boulevard/Atwood Avenue								
NBL	61	8	0	69	74	5	0	79
NBT	1,445	24	0	1,469	1,855	15	0	1,870
NBR	19	0	0	19	12	0	0	12
SBL	56	25	21	102	153	15	22	190
SBT	1,654	17	-21	1,650	1,776	10	-22	1,764
SBR	18	0	0	18	18	0	0	18
EBL	16	0	0	16	30	0	0	30
EBT	3	0	0	3	3	0	0	3
EBR	43	8	0	51	51	5	0	56
WBL	50	0	0	50	40	0	0	40
WBT	11	0	0	11	4	0	0	4
WBR	59	16	0	75	58	10	0	68
North Leg								
Approach	1,728	42	0	1,770	1,947	25	0	1,972
Departure	1,520	40	0	1,560	1,943	25	0	1,968
Total	3,248	82	0	3,330	3,890	50	0	3,940
South Leg								
Approach	1,525	32	0	1,557	1,941	20	0	1,961
Departure	1,747	25	-21	1,751	1,867	15	-22	1,860
Total	3,272	57	-21	3,308	3,808	35	-22	3,821
East Leg								
Approach	120	16	0	136	102	10	0	112
Departure	78	25	21	124	168	15	22	205
Total	198	41	21	260	270	25	22	317
West Leg								
Approach	62	8	0	70	84	5	0	89
Departure	90	8	0	98	96	5	0	101
Total	152	16	0	168	180	10	0	190
Total Approaches								
Approach	3,435	98	0	3,533	4,074	60	0	4,134
Departure	3,435	98	0	3,533	4,074	60	0	4,134
Total	6,870	196	0	7,066	8,148	120	0	8,268

Table C-3 - General Plan Build-Out (2040) Peak Hour Volume Summary

	AM Peak Hour				PM Peak Hour			
	GPBO (2040) Without Project	Net Project Trips	Pass-by Trips	GPBO (2040) With Project	GPBO (2040) Without Project	Net Project Trips	Pass-by Trips	GPBO (2040) With Project
3 Perris Boulevard/Auto Center Driveway - Project Driveway 1								
NBL	0	0	0	0	0	0	0	0
NBT	1,525	0	-19	1,506	1,941	0	-20	1,921
NBR	0	0	19	19	0	0	20	20
SBL	0	0	0	0	0	0	0	0
SBT	1,747	25	-21	1,751	1,867	15	-22	1,860
SBR	7	0	0	7	2	0	0	2
EBL	0	0	0	0	0	0	0	0
EBT	0	0	0	0	0	0	0	0
EBR	1	0	0	1	0	0	0	0
WBL	0	0	0	0	0	0	0	0
WBT	0	0	0	0	0	0	0	0
WBR	0	32	18	50	0	20	19	39
North Leg								
Approach	1,754	25	-21	1,758	1,869	15	-22	1,862
Departure	1,525	32	-1	1,556	1,941	20	-1	1,960
Total	3,279	57	-22	3,314	3,810	35	-23	3,822
South Leg								
Approach	1,525	0	0	1,525	1,941	0	0	1,941
Departure	1,748	25	-21	1,752	1,867	15	-22	1,860
Total	3,273	25	-21	3,277	3,808	15	-22	3,801
East Leg								
Approach	0	32	18	50	0	20	19	39
Departure	0	0	19	19	0	0	20	20
Total	0	32	37	69	0	20	39	59
West Leg								
Approach	1	0	0	1	0	0	0	0
Departure	7	0	0	7	2	0	0	2
Total	8	0	0	8	2	0	0	2
Total Approaches								
Approach	3,280	57	-3	3,334	3,810	35	-3	3,842
Departure	3,280	57	-3	3,334	3,810	35	-3	3,842
Total	6,560	114	-6	6,668	7,620	70	-6	7,684

Table C-3 - General Plan Build-Out (2040) Peak Hour Volume Summary

	AM Peak Hour				PM Peak Hour			
	GPBO (2040) Without Project	Net Project Trips	Pass-by Trips	GPBO (2040) With Project	GPBO (2040) Without Project	Net Project Trips	Pass-by Trips	GPBO (2040) With Project
4 Perris Boulevard/Dracaea Avenue								
NBL	75	0	-1	74	50	0	-1	49
NBT	1,342	0	0	1,342	1,611	0	0	1,611
NBR	22	50	1	73	53	31	1	85
SBL	43	25	-1	67	70	15	-1	84
SBT	1,527	0	-19	1,508	1,679	0	-20	1,659
SBR	177	0	-2	175	118	0	-1	117
EBL	92	0	0	92	258	0	0	258
EBT	79	33	1	113	344	21	0	365
EBR	60	0	-1	59	81	0	0	81
WBL	77	48	19	144	48	30	19	97
WBT	147	32	2	181	118	20	2	140
WBR	91	0	0	91	72	0	0	72
North Leg								
Approach	1,747	25	-22	1,750	1,867	15	-22	1,860
Departure	1,525	0	0	1,525	1,941	0	0	1,941
Total	3,272	25	-22	3,275	3,808	15	-22	3,801
South Leg								
Approach	1,439	50	0	1,489	1,714	31	0	1,745
Departure	1,664	48	-1	1,711	1,808	30	-1	1,837
Total	3,103	98	-1	3,200	3,522	61	-1	3,582
East Leg								
Approach	315	80	21	416	238	50	21	309
Departure	144	108	1	253	467	67	0	534
Total	459	188	22	669	705	117	21	843
West Leg								
Approach	231	33	0	264	683	21	0	704
Departure	399	32	-1	430	286	20	0	306
Total	630	65	-1	694	969	41	0	1,010
Total Approaches								
Approach	3,732	188	-1	3,919	4,502	117	-1	4,618
Departure	3,732	188	-1	3,919	4,502	117	-1	4,618
Total	7,464	376	-2	7,838	9,004	234	-2	9,236

Table C-3 - General Plan Build-Out (2040) Peak Hour Volume Summary

	AM Peak Hour				PM Peak Hour			
	GPBO (2040) Without Project	Net Project Trips	Pass-by Trips	GPBO (2040) With Project	GPBO (2040) Without Project	Net Project Trips	Pass-by Trips	GPBO (2040) With Project
5 Perris Boulevard/Cottonwood Avenue								
NBL	96	0	0	96	80	0	0	80
NBT	1,213	17	0	1,230	1,408	10	0	1,418
NBR	78	0	0	78	43	0	0	43
SBL	162	16	0	178	165	10	0	175
SBT	1,383	16	0	1,399	1,567	10	0	1,577
SBR	139	16	0	155	126	10	0	136
EBL	97	17	0	114	190	10	0	200
EBT	239	0	0	239	374	0	0	374
EBR	69	0	0	69	137	0	0	137
WBL	90	0	0	90	41	0	0	41
WBT	349	0	0	349	221	0	0	221
WBR	172	17	0	189	173	10	0	183
North Leg								
Approach	1,684	48	0	1,732	1,858	30	0	1,888
Departure	1,482	51	0	1,533	1,771	30	0	1,801
Total	3,166	99	0	3,265	3,629	60	0	3,689
South Leg								
Approach	1,387	17	0	1,404	1,531	10	0	1,541
Departure	1,542	16	0	1,558	1,745	10	0	1,755
Total	2,929	33	0	2,962	3,276	20	0	3,296
East Leg								
Approach	611	17	0	628	435	10	0	445
Departure	479	16	0	495	582	10	0	592
Total	1,090	33	0	1,123	1,017	20	0	1,037
West Leg								
Approach	405	17	0	422	701	10	0	711
Departure	584	16	0	600	427	10	0	437
Total	989	33	0	1,022	1,128	20	0	1,148
Total Approaches								
Approach	4,087	99	0	4,186	4,525	60	0	4,585
Departure	4,087	99	0	4,186	4,525	60	0	4,585
Total	8,174	198	0	8,372	9,050	120	0	9,170

Table C-3 - General Plan Build-Out (2040) Peak Hour Volume Summary

	AM Peak Hour				PM Peak Hour			
	GPBO (2040) Without Project	Net Project Trips	Pass-by Trips	GPBO (2040) With Project	GPBO (2040) Without Project	Net Project Trips	Pass-by Trips	GPBO (2040) With Project
6 Project Driveway 2/Dracaea Avenue								
NBL	0	0	0	0	0	0	0	0
NBT	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0
SBL	0	32	2	34	0	20	4	24
SBT	0	0	0	0	0	0	0	0
SBR	0	80	25	105	0	51	24	75
EBL	0	107	3	110	0	67	4	71
EBT	144	0	-2	142	467	0	-4	463
EBR	0	0	0	0	0	0	0	0
WBL	0	0	0	0	0	0	0	0
WBT	315	0	-4	311	238	0	-3	235
WBR	0	33	4	37	0	21	3	24
North Leg								
Approach	0	112	27	139	0	71	28	99
Departure	0	140	7	147	0	88	7	95
Total	0	252	34	286	0	159	35	194
South Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
East Leg								
Approach	315	33	0	348	238	21	0	259
Departure	144	32	0	176	467	20	0	487
Total	459	65	0	524	705	41	0	746
West Leg								
Approach	144	107	1	252	467	67	0	534
Departure	315	80	21	416	238	51	21	310
Total	459	187	22	668	705	118	21	844
Total Approaches								
Approach	459	252	28	739	705	159	28	892
Departure	459	252	28	739	705	159	28	892
Total	918	504	56	1,478	1,410	318	56	1,784

Table C-3 - General Plan Build-Out (2040) Peak Hour Volume Summary

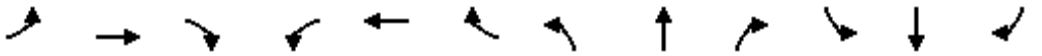
	AM Peak Hour				PM Peak Hour			
	GPBO (2040) Without Project	Net Project Trips	Pass-by Trips	GPBO (2040) With Project	GPBO (2040) Without Project	Net Project Trips	Pass-by Trips	GPBO (2040) With Project
7 Sunset Lane/Atwood Avenue								
NBL	2	16	0	18	1	10	0	11
NBT	0	0	0	0	0	0	0	0
NBR	0	0	0	0	0	0	0	0
SBL	0	0	0	0	0	0	0	0
SBT	0	0	0	0	0	0	0	0
SBR	0	0	0	0	0	0	0	0
EBL	0	0	0	0	0	0	0	0
EBT	76	0	0	76	165	0	0	165
EBR	1	25	21	47	2	15	22	39
WBL	0	0	0	0	0	0	0	0
WBT	119	0	0	119	101	0	0	101
WBR	0	0	0	0	0	0	0	0
North Leg								
Approach	0	0	0	0	0	0	0	0
Departure	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
South Leg								
Approach	2	16	0	18	1	10	0	11
Departure	1	25	21	47	2	15	22	39
Total	3	41	21	65	3	25	22	50
East Leg								
Approach	119	0	0	119	101	0	0	101
Departure	76	0	0	76	165	0	0	165
Total	195	0	0	195	266	0	0	266
West Leg								
Approach	77	25	21	123	167	15	22	204
Departure	121	16	0	137	102	10	0	112
Total	198	41	21	260	269	25	22	316
Total Approaches								
Approach	198	41	21	260	269	25	22	316
Departure	198	41	21	260	269	25	22	316
Total	396	82	42	520	538	50	44	632

APPENDIX D:

LEVEL OF SERVICE WORKSHEETS

HCM 6th Signalized Intersection Summary
1: Perris Boulevard & Eucalyptus Avenue

Perris/Dracaea Commercial Project
Existing NP - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	73	56	83	217	194	50	1002	58	72	1006	32
Future Volume (veh/h)	22	73	56	83	217	194	50	1002	58	72	1006	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	25	84	64	95	249	223	57	1152	67	83	1156	37
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	67	175	145	205	319	270	114	1421	631	364	1920	855
Arrive On Green	0.04	0.09	0.09	0.11	0.17	0.17	0.13	0.79	0.79	0.20	0.53	0.53
Sat Flow, veh/h	1810	1900	1577	1810	1900	1607	1810	3610	1602	1810	3610	1607
Grp Volume(v), veh/h	25	84	64	95	249	223	57	1152	67	83	1156	37
Grp Sat Flow(s),veh/h/ln	1810	1900	1577	1810	1900	1607	1810	1805	1602	1810	1805	1607
Q Serve(g_s), s	1.1	3.4	2.5	3.9	10.0	6.8	2.4	15.0	0.8	3.1	17.6	0.9
Cycle Q Clear(g_c), s	1.1	3.4	2.5	3.9	10.0	6.8	2.4	15.0	0.8	3.1	17.6	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	67	175	145	205	319	270	114	1421	631	364	1920	855
V/C Ratio(X)	0.37	0.48	0.44	0.46	0.78	0.83	0.50	0.81	0.11	0.23	0.60	0.04
Avail Cap(c_a), veh/h	158	439	365	205	439	372	158	1421	631	364	1920	855
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.6	34.5	23.1	33.2	31.9	13.1	33.8	6.7	5.2	26.8	12.9	9.0
Incr Delay (d2), s/veh	3.4	2.0	2.1	1.6	6.1	10.4	3.4	5.1	0.3	0.3	1.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.6	1.2	1.8	5.0	4.6	1.1	3.4	0.3	1.3	6.8	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.9	36.5	25.2	34.8	37.9	23.5	37.2	11.9	5.6	27.1	14.3	9.1
LnGrp LOS	D	D	C	C	D	C	D	B	A	C	B	A
Approach Vol, veh/h		173			567			1276			1276	
Approach Delay, s/veh		33.0			31.8			12.7			15.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.1	35.5	13.0	11.4	9.0	46.6	7.0	17.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.5	7.0	18.5	7.0	31.5	7.0	18.5
Max Q Clear Time (g_c+I1), s	5.1	17.0	5.9	5.4	4.4	19.6	3.1	12.0
Green Ext Time (p_c), s	0.0	7.4	0.0	0.5	0.0	6.4	0.0	1.2

Intersection Summary	
HCM 6th Ctrl Delay	17.9
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	1	37	4	2	9	52	1067	3	16	1135	16
Future Vol, veh/h	13	1	37	4	2	9	52	1067	3	16	1135	16
Conflicting Peds, #/hr	2	0	0	0	0	2	7	0	0	0	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	50	50	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	16	1	45	5	2	11	63	1286	4	19	1367	19

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2184	2828	691	2134	2843	645	1393	0	0	1290	0	0
Stage 1	1412	1412	-	1412	1412	-	-	-	-	-	-	-
Stage 2	772	1416	-	722	1431	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	26	18	392	29	18	420	497	-	-	544	-	-
Stage 1	148	206	-	148	206	-	-	-	-	-	-	-
Stage 2	363	205	-	389	202	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	19	15	389	21	15	419	494	-	-	544	-	-
Mov Cap-2 Maneuver	19	15	-	21	15	-	-	-	-	-	-	-
Stage 1	128	197	-	129	180	-	-	-	-	-	-	-
Stage 2	304	179	-	330	194	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	236.8	139.5	0.6	0.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	494	-	-	60	43	544	-	-
HCM Lane V/C Ratio	0.127	-	-	1.024	0.42	0.035	-	-
HCM Control Delay (s)	13.3	-	-	236.8	139.5	11.9	-	-
HCM Lane LOS	B	-	-	F	F	B	-	-
HCM 95th %tile Q(veh)	0.4	-	-	4.9	1.5	0.1	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	0	1137	1157	7
Future Vol, veh/h	0	1	0	1137	1157	7
Conflicting Peds, #/hr	0	0	11	0	0	11
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	25
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1	0	1370	1394	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2094	712	1413	0	-	0
Stage 1	1409	-	-	-	-	-
Stage 2	685	-	-	-	-	-
Critical Hdwy	6.25	7.1	5.3	-	-	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.65	3.9	3.1	-	-	-
Pot Cap-1 Maneuver	*254	*646	737	-	-	-
Stage 1	*613	-	-	-	-	-
Stage 2	*548	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*249	*639	729	-	-	-
Mov Cap-2 Maneuver	*375	-	-	-	-	-
Stage 1	*607	-	-	-	-	-
Stage 2	*543	-	-	-	-	-

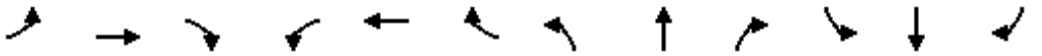
Approach	EB	NB	SB
HCM Control Delay, s	10.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	729	-	639	-	-
HCM Lane V/C Ratio	-	-	0.002	-	-
HCM Control Delay (s)	0	-	10.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th Signalized Intersection Summary
4: Perris Boulevard & Dracaea Avenue

Perris/Dracaea Commercial Project
Existing NP - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	71	52	70	96	67	50	1006	20	33	1039	86
Future Volume (veh/h)	64	71	52	70	96	67	50	1006	20	33	1039	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	76	85	62	83	114	80	60	1198	24	39	1237	102
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	189	191	411	129	158	93	328	1493	30	328	1489	642
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.18	0.41	0.41	0.18	0.41	0.41
Sat Flow, veh/h	480	744	1603	277	617	363	1810	3618	72	1810	3610	1557
Grp Volume(v), veh/h	161	0	62	277	0	0	60	597	625	39	1237	102
Grp Sat Flow(s),veh/h/ln	1224	0	1603	1256	0	0	1810	1805	1886	1810	1805	1557
Q Serve(g_s), s	0.0	0.0	2.4	9.3	0.0	0.0	2.2	23.3	23.3	1.4	24.5	3.3
Cycle Q Clear(g_c), s	8.4	0.0	2.4	17.7	0.0	0.0	2.2	23.3	23.3	1.4	24.5	3.3
Prop In Lane	0.47		1.00	0.30		0.29	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	380	0	411	381	0	0	328	745	778	328	1489	642
V/C Ratio(X)	0.42	0.00	0.15	0.73	0.00	0.00	0.18	0.80	0.80	0.12	0.83	0.16
Avail Cap(c_a), veh/h	475	0	513	480	0	0	328	745	778	328	1489	642
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.74	0.74	0.74	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	0.0	23.0	29.3	0.0	0.0	27.7	20.6	20.6	27.4	21.0	14.8
Incr Delay (d2), s/veh	0.7	0.0	0.2	4.1	0.0	0.0	0.2	6.8	6.5	0.2	5.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.9	5.4	0.0	0.0	1.0	10.5	10.9	0.6	10.7	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.6	0.0	23.2	33.4	0.0	0.0	27.9	27.4	27.1	27.6	26.5	15.3
LnGrp LOS	C	A	C	C	A	A	C	C	C	C	C	B
Approach Vol, veh/h		223			277			1282			1378	
Approach Delay, s/veh		24.9			33.4			27.3			25.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.5	37.0		24.5	18.5	37.0		24.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	9.4	33.0		25.6	9.4	33.0		25.6				
Max Q Clear Time (g_c+I1), s	3.4	25.3		10.4	4.2	26.5		19.7				
Green Ext Time (p_c), s	0.0	4.6		0.9	0.0	4.4		0.8				

Intersection Summary			
HCM 6th Ctrl Delay		27.0	
HCM 6th LOS		C	

Notes

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
5: Perris Boulevard & Cottonwood Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	224	54	61	276	159	59	870	49	131	930	109
Future Volume (veh/h)	87	224	54	61	276	159	59	870	49	131	930	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	105	270	65	73	333	192	71	1048	59	158	1120	131
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	143	620	147	127	390	329	126	1421	632	220	1611	713
Arrive On Green	0.08	0.21	0.21	0.07	0.21	0.21	0.07	0.39	0.39	0.12	0.45	0.45
Sat Flow, veh/h	1810	2894	684	1810	1900	1603	1810	3610	1606	1810	3610	1598
Grp Volume(v), veh/h	105	167	168	73	333	192	71	1048	59	158	1120	131
Grp Sat Flow(s),veh/h/ln	1810	1805	1773	1810	1900	1603	1810	1805	1606	1810	1805	1598
Q Serve(g_s), s	4.5	6.4	6.6	3.1	13.5	6.2	3.0	19.8	1.3	6.7	19.9	4.0
Cycle Q Clear(g_c), s	4.5	6.4	6.6	3.1	13.5	6.2	3.0	19.8	1.3	6.7	19.9	4.0
Prop In Lane	1.00		0.39	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	143	387	380	127	390	329	126	1421	632	220	1611	713
V/C Ratio(X)	0.73	0.43	0.44	0.57	0.85	0.58	0.57	0.74	0.09	0.72	0.70	0.18
Avail Cap(c_a), veh/h	158	417	410	158	439	371	192	1421	632	220	1611	713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.80	0.80	0.80
Uniform Delay (d), s/veh	36.0	27.2	27.3	36.0	30.6	14.9	36.1	20.7	7.9	33.8	17.8	13.4
Incr Delay (d2), s/veh	14.6	0.8	0.8	4.0	13.8	1.8	3.9	3.5	0.3	8.6	2.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	2.8	2.8	1.5	7.5	3.3	1.5	8.5	0.7	3.4	8.1	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.7	28.0	28.1	40.1	44.4	16.8	40.0	24.2	8.2	42.4	19.8	13.8
LnGrp LOS	D	C	C	D	D	B	D	C	A	D	B	B
Approach Vol, veh/h		440			598			1178			1409	
Approach Delay, s/veh		33.4			35.0			24.3			21.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	35.5	9.6	21.1	9.6	39.7	10.3	20.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.5	7.0	18.5	8.5	30.0	7.0	18.5
Max Q Clear Time (g_c+I1), s	8.6	21.8	5.1	8.6	5.0	21.9	6.5	15.5
Green Ext Time (p_c), s	0.0	5.1	0.0	1.3	0.0	4.9	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	19	1	0	13	2	0
Future Vol, veh/h	19	1	0	13	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	23	1	0	16	2	0

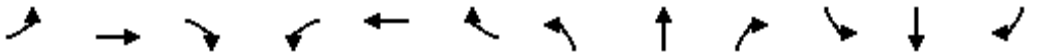
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	24	0	40	24
Stage 1	-	-	-	-	24	-
Stage 2	-	-	-	-	16	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1604	-	977	1058
Stage 1	-	-	-	-	1004	-
Stage 2	-	-	-	-	1012	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1604	-	977	1058
Mov Cap-2 Maneuver	-	-	-	-	977	-
Stage 1	-	-	-	-	1004	-
Stage 2	-	-	-	-	1012	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	977	-	-	1604	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	8.7	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th Signalized Intersection Summary
1: Perris Boulevard & Eucalyptus Avenue

Perris/Dracaea Commercial Project
Existing NP - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	189	79	52	127	108	51	978	59	97	1063	45
Future Volume (veh/h)	51	189	79	52	127	108	51	978	59	97	1063	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	199	83	55	134	114	54	1029	62	102	1119	47
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	98	254	214	99	255	216	98	1624	708	365	2156	937
Arrive On Green	0.05	0.13	0.13	0.05	0.13	0.13	0.02	0.15	0.15	0.20	0.60	0.60
Sat Flow, veh/h	1810	1900	1603	1810	1900	1610	1810	3610	1573	1810	3610	1569
Grp Volume(v), veh/h	54	199	83	55	134	114	54	1029	62	102	1119	47
Grp Sat Flow(s),veh/h/ln	1810	1900	1603	1810	1900	1610	1810	1805	1573	1810	1805	1569
Q Serve(g_s), s	2.9	10.1	4.7	3.0	6.6	4.5	3.0	26.8	2.6	4.8	18.1	1.2
Cycle Q Clear(g_c), s	2.9	10.1	4.7	3.0	6.6	4.5	3.0	26.8	2.6	4.8	18.1	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	98	254	214	99	255	216	98	1625	708	365	2156	937
V/C Ratio(X)	0.55	0.78	0.39	0.55	0.53	0.53	0.55	0.63	0.09	0.28	0.52	0.05
Avail Cap(c_a), veh/h	199	475	401	127	399	338	163	1625	708	365	2156	937
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.1	41.9	39.6	46.1	40.3	18.4	47.9	34.8	14.2	33.8	11.8	8.4
Incr Delay (d2), s/veh	4.7	5.3	1.1	4.8	1.7	2.0	4.7	1.9	0.2	0.4	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.1	1.9	1.5	3.2	2.6	1.5	13.3	1.3	2.1	7.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.8	47.2	40.7	50.8	42.0	20.4	52.6	36.7	14.4	34.2	12.7	8.5
LnGrp LOS	D	D	D	D	D	C	D	D	B	C	B	A
Approach Vol, veh/h		336			303			1145			1268	
Approach Delay, s/veh		46.2			35.5			36.3			14.2	
Approach LOS		D			D			D			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.2	49.0	9.5	17.4	9.4	63.7	9.4	17.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	45.0	7.0	25.0	9.0	43.0	11.0	21.0
Max Q Clear Time (g_c+I1), s	6.8	28.8	5.0	12.1	5.0	20.1	4.9	8.6
Green Ext Time (p_c), s	0.0	7.0	0.0	1.1	0.0	9.1	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	28.1
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	1	36	3	1	13	43	1059	1	42	1120	15
Future Vol, veh/h	27	1	36	3	1	13	43	1059	1	42	1120	15
Conflicting Peds, #/hr	0	0	0	0	0	0	4	0	0	0	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	50	50	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	28	1	37	3	1	13	44	1092	1	43	1155	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1880	2426	582	1844	2440	546	1174	0	0	1093	0	0
Stage 1	1245	1245	-	1180	1180	-	-	-	-	-	-	-
Stage 2	635	1181	-	664	1260	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	45	33	461	47	32	487	602	-	-	646	-	-
Stage 1	187	248	-	205	266	-	-	-	-	-	-	-
Stage 2	438	266	-	421	244	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	38	28	459	38	28	487	600	-	-	646	-	-
Mov Cap-2 Maneuver	38	28	-	38	28	-	-	-	-	-	-	-
Stage 1	173	230	-	190	247	-	-	-	-	-	-	-
Stage 2	393	247	-	360	227	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	153.5	40.1	0.4	0.4
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	600	-	-	78	120	646	-	-
HCM Lane V/C Ratio	0.074	-	-	0.846	0.146	0.067	-	-
HCM Control Delay (s)	11.5	-	-	153.5	40.1	11	-	-
HCM Lane LOS	B	-	-	F	E	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	4.3	0.5	0.2	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	1105	1151	2
Future Vol, veh/h	0	0	0	1105	1151	2
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	25
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	1151	1199	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1779	604	1204	0	-	0
Stage 1	1203	-	-	-	-	-
Stage 2	576	-	-	-	-	-
Critical Hdwy	6.25	7.1	5.3	-	-	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.65	3.9	3.1	-	-	-
Pot Cap-1 Maneuver	*516	*648	*815	-	-	-
Stage 1	*692	-	-	-	-	-
Stage 2	*579	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*513	*646	*813	-	-	-
Mov Cap-2 Maneuver	*511	-	-	-	-	-
Stage 1	*690	-	-	-	-	-
Stage 2	*577	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 813	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th Signalized Intersection Summary
4: Perris Boulevard & Dracaea Avenue

Perris/Dracaea Commercial Project
Existing NP - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	102	22	32	73	47	29	988	36	47	1036	68
Future Volume (veh/h)	69	102	22	32	73	47	29	988	36	47	1036	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	72	106	23	33	76	49	30	1029	38	49	1079	71
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	160	302	61	119	61	348	2270	84	94	1805	784
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.38	1.00	1.00	0.10	1.00	1.00
Sat Flow, veh/h	413	852	1608	93	631	326	1810	3547	131	1810	3610	1568
Grp Volume(v), veh/h	178	0	23	158	0	0	30	524	543	49	1079	71
Grp Sat Flow(s),veh/h/ln	1266	0	1608	1050	0	0	1810	1805	1873	1810	1805	1568
Q Serve(g_s), s	0.0	0.0	1.2	2.4	0.0	0.0	1.1	0.0	0.0	2.6	0.0	0.0
Cycle Q Clear(g_c), s	13.7	0.0	1.2	16.1	0.0	0.0	1.1	0.0	0.0	2.6	0.0	0.0
Prop In Lane	0.40		1.00	0.21		0.31	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	288	0	302	241	0	0	348	1155	1199	94	1805	784
V/C Ratio(X)	0.62	0.00	0.08	0.66	0.00	0.00	0.09	0.45	0.45	0.52	0.60	0.09
Avail Cap(c_a), veh/h	483	0	498	441	0	0	348	1155	1199	127	1805	784
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	0.0	33.5	37.7	0.0	0.0	25.2	0.0	0.0	43.6	0.0	0.0
Incr Delay (d2), s/veh	2.2	0.0	0.1	3.0	0.0	0.0	0.1	1.1	1.1	4.4	1.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	0.5	4.0	0.0	0.0	0.5	0.4	0.4	1.2	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	0.0	33.6	40.8	0.0	0.0	25.3	1.1	1.1	48.0	1.5	0.2
LnGrp LOS	D	A	C	D	A	A	C	A	A	D	A	A
Approach Vol, veh/h		201			158			1097			1199	
Approach Delay, s/veh		39.3			40.8			1.8			3.3	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.2	68.0		22.8	23.2	54.0		22.8				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	7.0	50.0		31.0	7.0	50.0		31.0				
Max Q Clear Time (g_c+I1), s	4.6	2.0		15.7	3.1	2.0		18.1				
Green Ext Time (p_c), s	0.0	9.1		0.9	0.0	10.8		0.6				

Intersection Summary	
HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	197	75	23	134	87	64	931	31	98	964	83
Future Volume (veh/h)	92	197	75	23	134	87	64	931	31	98	964	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	94	201	77	23	137	89	65	950	32	100	984	85
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	122	362	134	60	202	166	106	1264	549	572	2194	954
Arrive On Green	0.07	0.14	0.14	0.03	0.11	0.11	0.06	0.35	0.35	0.63	1.00	1.00
Sat Flow, veh/h	1810	2572	952	1810	1900	1565	1810	3610	1570	1810	3610	1570
Grp Volume(v), veh/h	94	139	139	23	137	89	65	950	32	100	984	85
Grp Sat Flow(s),veh/h/ln	1810	1805	1719	1810	1900	1565	1810	1805	1570	1810	1805	1570
Q Serve(g_s), s	5.1	7.2	7.6	1.2	6.9	3.0	3.5	23.2	1.1	2.3	0.0	0.0
Cycle Q Clear(g_c), s	5.1	7.2	7.6	1.2	6.9	3.0	3.5	23.2	1.1	2.3	0.0	0.0
Prop In Lane	1.00		0.55	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	122	254	242	60	202	166	106	1264	549	572	2194	954
V/C Ratio(X)	0.77	0.55	0.58	0.38	0.68	0.54	0.61	0.75	0.06	0.17	0.45	0.09
Avail Cap(c_a), veh/h	407	433	413	308	352	290	127	1264	549	572	2194	954
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	45.9	40.0	40.2	47.4	43.1	13.1	46.0	28.7	14.7	13.0	0.0	0.0
Incr Delay (d2), s/veh	9.7	1.8	2.2	4.0	4.0	2.7	6.2	4.2	0.2	0.1	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	3.3	3.3	0.6	3.5	2.1	1.8	10.5	0.5	0.9	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.6	41.8	42.3	51.4	47.0	15.8	52.2	32.8	14.9	13.1	0.6	0.2
LnGrp LOS	E	D	D	D	D	B	D	C	B	B	A	A
Approach Vol, veh/h		372			249			1047			1169	
Approach Delay, s/veh		45.5			36.3			33.5			1.6	
Approach LOS		D			D			C			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.6	39.0	7.3	18.1	9.8	64.8	10.7	14.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	35.0	17.0	24.0	7.0	36.0	22.5	18.5
Max Q Clear Time (g_c+I1), s	11.3	25.2	3.2	9.6	5.5	2.0	7.1	8.9
Green Ext Time (p_c), s	0.1	4.6	0.0	1.3	0.0	9.0	0.2	0.7

Intersection Summary	
HCM 6th Ctrl Delay	22.2
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	42	2	0	16	1	0
Future Vol, veh/h	42	2	0	16	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	43	2	0	16	1	0

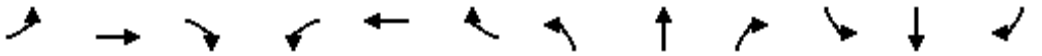
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	45	0	60	44
Stage 1	-	-	-	-	44	-
Stage 2	-	-	-	-	16	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1576	-	952	1032
Stage 1	-	-	-	-	984	-
Stage 2	-	-	-	-	1012	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1576	-	952	1032
Mov Cap-2 Maneuver	-	-	-	-	952	-
Stage 1	-	-	-	-	984	-
Stage 2	-	-	-	-	1012	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	952	-	-	1576	-
HCM Lane V/C Ratio	0.001	-	-	-	-
HCM Control Delay (s)	8.8	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th Signalized Intersection Summary
1: Perris Boulevard & Eucalyptus Avenue

Perris/Dracaea Commercial Project
Project Completion (2022) NP - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	77	60	88	230	206	53	1177	61	76	1114	34
Future Volume (veh/h)	24	77	60	88	230	206	53	1177	61	76	1114	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	89	69	101	264	237	61	1353	70	87	1280	39
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	73	175	145	224	333	282	118	1421	631	345	1874	834
Arrive On Green	0.04	0.09	0.09	0.12	0.18	0.18	0.13	0.79	0.79	0.19	0.52	0.52
Sat Flow, veh/h	1810	1900	1577	1810	1900	1607	1810	3610	1602	1810	3610	1607
Grp Volume(v), veh/h	28	89	69	101	264	237	61	1353	70	87	1280	39
Grp Sat Flow(s),veh/h/ln	1810	1900	1577	1810	1900	1607	1810	1805	1602	1810	1805	1607
Q Serve(g_s), s	1.2	3.6	2.7	4.1	10.6	7.4	2.5	25.4	0.8	3.3	21.1	1.0
Cycle Q Clear(g_c), s	1.2	3.6	2.7	4.1	10.6	7.4	2.5	25.4	0.8	3.3	21.1	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	73	175	145	224	333	282	118	1421	631	345	1874	834
V/C Ratio(X)	0.38	0.51	0.48	0.45	0.79	0.84	0.52	0.95	0.11	0.25	0.68	0.05
Avail Cap(c_a), veh/h	158	439	365	224	439	372	158	1421	631	345	1874	834
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	34.6	23.1	32.5	31.6	13.4	33.6	7.9	5.2	27.5	14.3	9.5
Incr Delay (d2), s/veh	3.2	2.3	2.4	1.4	7.2	12.4	3.5	14.9	0.4	0.4	2.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.7	1.3	1.9	5.4	3.5	1.2	5.8	0.3	1.4	8.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.6	36.9	25.5	34.0	38.8	25.8	37.2	22.7	5.6	27.9	16.4	9.6
LnGrp LOS	D	D	C	C	D	C	D	C	A	C	B	A
Approach Vol, veh/h		186			602			1484			1406	
Approach Delay, s/veh		33.2			32.9			22.5			16.9	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.2	35.5	13.9	11.4	9.2	45.5	7.2	18.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.5	7.0	18.5	7.0	31.5	7.0	18.5
Max Q Clear Time (g_c+I1), s	5.3	27.4	6.1	5.6	4.5	23.1	3.2	12.6
Green Ext Time (p_c), s	0.0	3.1	0.0	0.5	0.0	5.4	0.0	1.2

Intersection Summary	
HCM 6th Ctrl Delay	22.6
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	16.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	1	40	4	2	10	55	1245	3	17	1252	17
Future Vol, veh/h	15	1	40	4	2	10	55	1245	3	17	1252	17
Conflicting Peds, #/hr	2	0	0	0	0	2	7	0	0	0	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	50	50	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	18	1	48	5	2	12	66	1500	4	20	1508	20

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2440	3191	761	2427	3207	752	1535	0	0	1504	0	0
Stage 1	1555	1555	-	1632	1632	-	-	-	-	-	-	-
Stage 2	885	1636	-	795	1575	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	~ 17	10	352	17	10	357	439	-	-	451	-	-
Stage 1	120	176	-	108	161	-	-	-	-	-	-	-
Stage 2	310	160	-	351	172	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 11	8	350	11	8	356	436	-	-	451	-	-
Mov Cap-2 Maneuver	~ 11	8	-	11	8	-	-	-	-	-	-	-
Stage 1	101	167	-	92	137	-	-	-	-	-	-	-
Stage 2	249	136	-	287	163	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 681	$ 326.9	0.6	0.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	436	-	-	35	25	451	-	-
HCM Lane V/C Ratio	0.152	-	-	1.928	0.771	0.045	-	-
HCM Control Delay (s)	14.7	-	-	$ 681	$ 326.9	13.4	-	-
HCM Lane LOS	B	-	-	F	F	B	-	-
HCM 95th %tile Q(veh)	0.5	-	-	7.5	2.4	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	0	1319	1276	7
Future Vol, veh/h	0	1	0	1319	1276	7
Conflicting Peds, #/hr	0	0	11	0	0	11
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	25
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1	0	1589	1537	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2347	784	1556	0	-	0
Stage 1	1552	-	-	-	-	-
Stage 2	795	-	-	-	-	-
Critical Hdwy	6.25	7.1	5.3	-	-	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.65	3.9	3.1	-	-	-
Pot Cap-1 Maneuver	*183	*646	594	-	-	-
Stage 1	*466	-	-	-	-	-
Stage 2	*477	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*179	*639	587	-	-	-
Mov Cap-2 Maneuver	*295	-	-	-	-	-
Stage 1	*461	-	-	-	-	-
Stage 2	*472	-	-	-	-	-

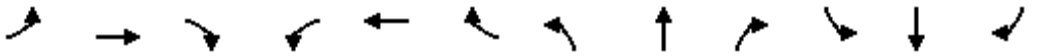
Approach	EB	NB	SB
HCM Control Delay, s	10.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	587	-	639	-	-
HCM Lane V/C Ratio	-	-	0.002	-	-
HCM Control Delay (s)	0	-	10.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th Signalized Intersection Summary
4: Perris Boulevard & Dracaea Avenue

Perris/Dracaea Commercial Project
Project Completion (2022) NP - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	75	55	74	102	71	53	1179	21	35	1151	91
Future Volume (veh/h)	69	75	55	74	102	71	53	1179	21	35	1151	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	82	89	65	88	121	85	63	1404	25	42	1370	108
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	197	193	440	133	165	97	295	1497	27	295	1489	642
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.05	0.14	0.14	0.22	0.55	0.55
Sat Flow, veh/h	475	703	1603	271	600	354	1810	3628	65	1810	3610	1557
Grp Volume(v), veh/h	171	0	65	294	0	0	63	698	731	42	1370	108
Grp Sat Flow(s),veh/h/ln	1178	0	1603	1226	0	0	1810	1805	1887	1810	1805	1557
Q Serve(g_s), s	0.0	0.0	2.5	10.0	0.0	0.0	2.7	30.6	30.7	1.5	27.7	2.8
Cycle Q Clear(g_c), s	9.3	0.0	2.5	19.3	0.0	0.0	2.7	30.6	30.7	1.5	27.7	2.8
Prop In Lane	0.48		1.00	0.30		0.29	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	390	0	440	395	0	0	295	745	779	295	1489	642
V/C Ratio(X)	0.44	0.00	0.15	0.74	0.00	0.00	0.21	0.94	0.94	0.14	0.92	0.17
Avail Cap(c_a), veh/h	457	0	513	466	0	0	295	745	779	295	1489	642
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.52	0.52	0.52	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	0.0	21.9	28.8	0.0	0.0	32.9	33.5	33.6	26.8	16.9	11.2
Incr Delay (d2), s/veh	0.8	0.0	0.2	5.3	0.0	0.0	0.2	12.9	12.6	0.2	10.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.9	5.9	0.0	0.0	1.2	17.3	18.0	0.6	10.8	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	0.0	22.1	34.2	0.0	0.0	33.1	46.5	46.2	27.0	27.6	11.8
LnGrp LOS	C	A	C	C	A	A	C	D	D	C	C	B
Approach Vol, veh/h		236			294			1492			1520	
Approach Delay, s/veh		24.0			34.2			45.8			26.4	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.0	37.0		26.0	17.0	37.0		26.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	9.4	33.0		25.6	9.4	33.0		25.6				
Max Q Clear Time (g_c+I1), s	3.5	32.7		11.3	4.7	29.7		21.3				
Green Ext Time (p_c), s	0.0	0.3		1.0	0.0	2.6		0.7				

Intersection Summary			
HCM 6th Ctrl Delay		35.1	
HCM 6th LOS		D	

Notes

User approved ignoring U-Turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	237	57	65	293	169	63	1035	52	139	1036	116
Future Volume (veh/h)	92	237	57	65	293	169	63	1035	52	139	1036	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	111	286	69	78	353	204	76	1247	63	167	1248	140
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	145	663	157	130	420	355	129	1173	522	314	1543	682
Arrive On Green	0.08	0.23	0.23	0.07	0.22	0.22	0.07	0.32	0.32	0.35	0.85	0.85
Sat Flow, veh/h	1810	2892	686	1810	1900	1604	1810	3610	1605	1810	3610	1597
Grp Volume(v), veh/h	111	177	178	78	353	204	76	1247	63	167	1248	140
Grp Sat Flow(s),veh/h/ln	1810	1805	1773	1810	1900	1604	1810	1805	1605	1810	1805	1597
Q Serve(g_s), s	4.8	6.7	6.9	3.3	14.2	5.9	3.3	26.0	1.6	5.9	13.0	1.2
Cycle Q Clear(g_c), s	4.8	6.7	6.9	3.3	14.2	5.9	3.3	26.0	1.6	5.9	13.0	1.2
Prop In Lane	1.00		0.39	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	414	407	130	420	355	129	1173	522	314	1543	682
V/C Ratio(X)	0.77	0.43	0.44	0.60	0.84	0.57	0.59	1.06	0.12	0.53	0.81	0.21
Avail Cap(c_a), veh/h	204	496	488	204	523	441	158	1173	522	314	1543	682
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.68	0.68	0.68
Uniform Delay (d), s/veh	36.1	26.3	26.4	36.0	29.8	11.7	36.0	27.0	10.5	23.5	4.3	3.4
Incr Delay (d2), s/veh	10.6	0.7	0.7	4.3	9.7	1.5	4.2	44.7	0.5	1.2	3.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	2.9	2.9	1.6	7.4	3.3	1.6	17.8	0.9	2.3	2.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.7	27.0	27.2	40.3	39.5	13.2	40.2	71.7	11.0	24.7	7.5	3.9
LnGrp LOS	D	C	C	D	D	B	D	F	B	C	A	A
Approach Vol, veh/h		466			635			1386			1555	
Approach Delay, s/veh		31.8			31.1			67.2			9.0	
Approach LOS		C			C			E			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.9	30.0	9.8	22.3	9.7	38.2	10.4	21.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	26.0	9.0	22.0	7.0	26.0	9.0	22.0
Max Q Clear Time (g_c+I1), s	7.9	28.0	5.3	8.9	5.3	15.0	6.8	16.2
Green Ext Time (p_c), s	0.0	0.0	0.0	1.7	0.0	6.7	0.0	1.5

Intersection Summary	
HCM 6th Ctrl Delay	35.1
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	20	1	0	14	2	0
Future Vol, veh/h	20	1	0	14	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	24	1	0	17	2	0

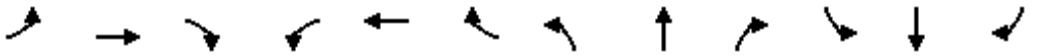
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	25	0	42	25
Stage 1	-	-	-	-	25	-
Stage 2	-	-	-	-	17	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1603	-	974	1057
Stage 1	-	-	-	-	1003	-
Stage 2	-	-	-	-	1011	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1603	-	974	1057
Mov Cap-2 Maneuver	-	-	-	-	974	-
Stage 1	-	-	-	-	1003	-
Stage 2	-	-	-	-	1011	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	974	-	-	1603	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	8.7	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th Signalized Intersection Summary
1: Perris Boulevard & Eucalyptus Avenue

Perris/Dracaea Commercial Project
Project Completion (2022) NP - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	200	84	55	135	114	55	1123	63	103	1250	49
Future Volume (veh/h)	54	200	84	55	135	114	55	1123	63	103	1250	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	57	211	88	58	142	120	58	1182	66	108	1316	52
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	101	266	224	101	267	226	101	1624	708	351	2123	922
Arrive On Green	0.06	0.14	0.14	0.06	0.14	0.14	0.02	0.15	0.15	0.19	0.59	0.59
Sat Flow, veh/h	1810	1900	1603	1810	1900	1610	1810	3610	1573	1810	3610	1569
Grp Volume(v), veh/h	57	211	88	58	142	120	58	1182	66	108	1316	52
Grp Sat Flow(s),veh/h/ln	1810	1900	1603	1810	1900	1610	1810	1805	1573	1810	1805	1569
Q Serve(g_s), s	3.1	10.7	5.0	3.1	6.9	4.7	3.2	31.3	2.7	5.1	23.6	1.4
Cycle Q Clear(g_c), s	3.1	10.7	5.0	3.1	6.9	4.7	3.2	31.3	2.7	5.1	23.6	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	101	266	224	101	267	226	101	1625	708	351	2123	922
V/C Ratio(X)	0.57	0.79	0.39	0.57	0.53	0.53	0.57	0.73	0.09	0.31	0.62	0.06
Avail Cap(c_a), veh/h	199	475	401	127	399	338	163	1625	708	351	2123	922
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.0	41.6	39.1	46.0	39.9	18.5	47.9	36.7	14.1	34.5	13.4	8.8
Incr Delay (d2), s/veh	4.9	5.3	1.1	5.0	1.6	1.9	5.0	2.9	0.3	0.5	1.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	5.4	2.0	1.5	3.3	2.8	1.6	15.7	1.4	2.3	9.3	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.0	46.9	40.2	51.0	41.6	20.5	52.9	39.6	14.4	35.0	14.7	8.9
LnGrp LOS	D	D	D	D	D	C	D	D	B	D	B	A
Approach Vol, veh/h		356			320			1306			1476	
Approach Delay, s/veh		45.9			35.4			38.9			16.0	
Approach LOS		D			D			D			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.4	49.0	9.6	18.0	9.6	62.8	9.6	18.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	45.0	7.0	25.0	9.0	43.0	11.0	21.0
Max Q Clear Time (g_c+I1), s	7.1	33.3	5.1	12.7	5.2	25.6	5.1	8.9
Green Ext Time (p_c), s	0.0	6.6	0.0	1.1	0.0	9.4	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	29.5
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	12.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	1	38	3	1	14	47	1210	1	45	1309	17
Future Vol, veh/h	29	1	38	3	1	14	47	1210	1	45	1309	17
Conflicting Peds, #/hr	0	0	0	0	0	0	4	0	0	0	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	50	50	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	30	1	39	3	1	14	48	1247	1	46	1349	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2165	2789	679	2110	2806	624	1371	0	0	1248	0	0
Stage 1	1445	1445	-	1343	1343	-	-	-	-	-	-	-
Stage 2	720	1344	-	767	1463	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	~ 27	19	399	30	19	433	507	-	-	565	-	-
Stage 1	141	199	-	163	223	-	-	-	-	-	-	-
Stage 2	390	222	-	365	195	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 22	16	397	22	16	433	505	-	-	565	-	-
Mov Cap-2 Maneuver	~ 22	16	-	22	16	-	-	-	-	-	-	-
Stage 1	127	182	-	148	202	-	-	-	-	-	-	-
Stage 2	339	201	-	300	178	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 461.1	65	0.5	0.4
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	505	-	-	46	78	565	-	-
HCM Lane V/C Ratio	0.096	-	-	1.524	0.238	0.082	-	-
HCM Control Delay (s)	12.9	-	-	$ 461.1	65	11.9	-	-
HCM Lane LOS	B	-	-	F	F	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-	6.8	0.8	0.3	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	1259	1342	2
Future Vol, veh/h	0	0	0	1259	1342	2
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	25
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	1311	1398	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2058	703	1403	0	-	0
Stage 1	1402	-	-	-	-	-
Stage 2	656	-	-	-	-	-
Critical Hdwy	6.25	7.1	5.3	-	-	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.65	3.9	3.1	-	-	-
Pot Cap-1 Maneuver	*487	*622	*782	-	-	-
Stage 1	*664	-	-	-	-	-
Stage 2	*493	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*484	*620	*780	-	-	-
Mov Cap-2 Maneuver	*449	-	-	-	-	-
Stage 1	*662	-	-	-	-	-
Stage 2	*492	-	-	-	-	-

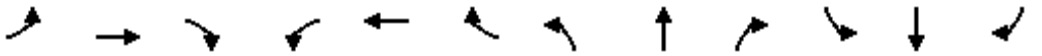
Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 780	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th Signalized Intersection Summary
4: Perris Boulevard & Dracaea Avenue

Perris/Dracaea Commercial Project
Project Completion (2022) NP - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	108	23	34	77	50	31	1134	38	50	1219	73
Future Volume (veh/h)	74	108	23	34	77	50	31	1134	38	50	1219	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	77	112	24	35	80	52	32	1181	40	52	1270	76
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	133	166	327	61	124	64	320	2218	75	97	1805	784
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.35	1.00	1.00	0.11	1.00	1.00
Sat Flow, veh/h	403	814	1608	87	610	315	1810	3559	120	1810	3610	1568
Grp Volume(v), veh/h	189	0	24	167	0	0	32	599	622	52	1270	76
Grp Sat Flow(s),veh/h/ln	1218	0	1608	1012	0	0	1810	1805	1875	1810	1805	1568
Q Serve(g_s), s	0.0	0.0	1.2	2.5	0.0	0.0	1.2	0.0	0.0	2.7	0.0	0.0
Cycle Q Clear(g_c), s	15.2	0.0	1.2	17.7	0.0	0.0	1.2	0.0	0.0	2.7	0.0	0.0
Prop In Lane	0.41		1.00	0.21		0.31	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	298	0	327	249	0	0	320	1125	1168	97	1805	784
V/C Ratio(X)	0.63	0.00	0.07	0.67	0.00	0.00	0.10	0.53	0.53	0.54	0.70	0.10
Avail Cap(c_a), veh/h	467	0	498	424	0	0	320	1125	1168	127	1805	784
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.83	0.83	0.83	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	0.0	32.2	36.7	0.0	0.0	27.0	0.0	0.0	43.5	0.0	0.0
Incr Delay (d2), s/veh	2.2	0.0	0.1	3.1	0.0	0.0	0.1	1.5	1.4	4.6	2.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	0.5	4.2	0.0	0.0	0.5	0.5	0.5	1.3	0.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	0.0	32.3	39.8	0.0	0.0	27.1	1.5	1.4	48.0	2.3	0.2
LnGrp LOS	D	A	C	D	A	A	C	A	A	D	A	A
Approach Vol, veh/h		213			167			1253			1398	
Approach Delay, s/veh		38.5			39.8			2.1			3.9	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	66.3		24.3	21.7	54.0		24.3				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	7.0	50.0		31.0	7.0	50.0		31.0				
Max Q Clear Time (g_c+I1), s	4.7	2.0		17.2	3.2	2.0		19.7				
Green Ext Time (p_c), s	0.0	11.3		0.9	0.0	14.0		0.6				

Intersection Summary		
HCM 6th Ctrl Delay		7.6
HCM 6th LOS		A

Notes

User approved ignoring U-Turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	209	80	24	142	92	68	1074	33	104	1143	88
Future Volume (veh/h)	98	209	80	24	142	92	68	1074	33	104	1143	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	100	213	82	24	145	94	69	1096	34	106	1166	90
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	129	378	141	62	209	172	108	1264	549	558	2162	940
Arrive On Green	0.07	0.15	0.15	0.03	0.11	0.11	0.06	0.35	0.35	0.62	1.00	1.00
Sat Flow, veh/h	1810	2567	956	1810	1900	1566	1810	3610	1570	1810	3610	1570
Grp Volume(v), veh/h	100	148	147	24	145	94	69	1096	34	106	1166	90
Grp Sat Flow(s),veh/h/ln	1810	1805	1719	1810	1900	1566	1810	1805	1570	1810	1805	1570
Q Serve(g_s), s	5.4	7.6	8.0	1.3	7.4	3.2	3.7	28.3	1.2	2.5	0.0	0.0
Cycle Q Clear(g_c), s	5.4	7.6	8.0	1.3	7.4	3.2	3.7	28.3	1.2	2.5	0.0	0.0
Prop In Lane	1.00		0.56	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	129	266	253	62	209	172	108	1264	549	558	2162	940
V/C Ratio(X)	0.77	0.55	0.58	0.39	0.69	0.55	0.64	0.87	0.06	0.19	0.54	0.10
Avail Cap(c_a), veh/h	407	433	412	308	352	290	127	1264	549	558	2162	940
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	45.6	39.6	39.8	47.3	42.9	13.4	46.0	30.3	14.7	13.7	0.0	0.0
Incr Delay (d2), s/veh	9.4	1.8	2.1	4.0	4.1	2.7	8.0	8.2	0.2	0.1	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	3.5	3.5	0.6	3.7	2.2	1.9	13.4	0.6	1.0	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.0	41.4	41.9	51.2	47.0	16.1	54.0	38.5	14.9	13.9	0.8	0.2
LnGrp LOS	E	D	D	D	D	B	D	D	B	B	A	A
Approach Vol, veh/h		395			263			1199			1362	
Approach Delay, s/veh		45.0			36.3			38.7			1.8	
Approach LOS		D			D			D			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.9	39.0	7.4	18.7	10.0	63.9	11.1	15.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	35.0	17.0	24.0	7.0	36.0	22.5	18.5
Max Q Clear Time (g_c+I1), s	4.5	30.3	3.3	10.0	5.7	2.0	7.4	9.4
Green Ext Time (p_c), s	0.1	3.0	0.0	1.4	0.0	11.3	0.2	0.7

Intersection Summary	
HCM 6th Ctrl Delay	23.7
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	45	2	0	17	1	0
Future Vol, veh/h	45	2	0	17	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	46	2	0	18	1	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	48	0	65	47
Stage 1	-	-	-	-	47	-
Stage 2	-	-	-	-	18	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1572	-	946	1028
Stage 1	-	-	-	-	981	-
Stage 2	-	-	-	-	1010	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1572	-	946	1028
Mov Cap-2 Maneuver	-	-	-	-	946	-
Stage 1	-	-	-	-	981	-
Stage 2	-	-	-	-	1010	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	946	-	-	1572	-
HCM Lane V/C Ratio	0.001	-	-	-	-
HCM Control Delay (s)	8.8	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th Signalized Intersection Summary
1: Perris Boulevard & Eucalyptus Avenue

Perris/Dracaea Commercial Project
Project Completion (2022) WP - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	27	77	77	105	230	206	6	69	1182	77	76	1122
Future Volume (veh/h)	27	77	77	105	230	206	6	69	1182	77	76	1122
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00		1.00		0.99	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No				No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900		1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	31	89	89	121	264	237		79	1359	89	87	1290
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87		0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0		0	0	0	0	0
Cap, veh/h	79	175	145	229	333	282		131	1421	631	339	1837
Arrive On Green	0.04	0.09	0.09	0.13	0.18	0.18		0.14	0.79	0.79	0.19	0.51
Sat Flow, veh/h	1810	1900	1577	1810	1900	1607		1810	3610	1602	1810	3610
Grp Volume(v), veh/h	31	89	89	121	264	237		79	1359	89	87	1290
Grp Sat Flow(s),veh/h/ln	1810	1900	1577	1810	1900	1607		1810	1805	1602	1810	1805
Q Serve(g_s), s	1.3	3.6	3.5	5.0	10.6	7.4		3.3	25.9	1.1	3.3	21.9
Cycle Q Clear(g_c), s	1.3	3.6	3.5	5.0	10.6	7.4		3.3	25.9	1.1	3.3	21.9
Prop In Lane	1.00		1.00	1.00		1.00		1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	79	175	145	229	333	282		131	1421	631	339	1837
V/C Ratio(X)	0.39	0.51	0.61	0.53	0.79	0.84		0.60	0.96	0.14	0.26	0.70
Avail Cap(c_a), veh/h	158	439	365	229	439	372		158	1421	631	339	1837
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		2.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	34.6	22.9	32.7	31.6	13.5		33.1	7.9	5.3	27.7	15.0
Incr Delay (d2), s/veh	3.2	2.3	4.1	2.2	7.2	12.4		4.4	15.5	0.5	0.4	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.7	1.8	2.3	5.4	3.5		1.5	6.0	0.4	1.4	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.4	36.9	27.1	34.9	38.8	26.0		37.5	23.4	5.7	28.1	17.3
LnGrp LOS	D	D	C	C	D	C		D	C	A	C	B
Approach Vol, veh/h		209			622				1527			1416
Approach Delay, s/veh		33.2			33.2				23.1			17.8
Approach LOS		C			C				C			B

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	35.5	14.1	11.4	9.8	44.7	7.5	18.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.5	7.0	18.5	7.0	31.5	7.0	18.5
Max Q Clear Time (g_c+I1), s	5.3	27.9	7.0	5.6	5.3	23.9	3.3	12.6
Green Ext Time (p_c), s	0.0	2.8	0.0	0.6	0.0	5.1	0.0	1.2

Intersection Summary	
HCM 6th Ctrl Delay	23.3
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	34
Future Volume (veh/h)	34
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	39
Peak Hour Factor	0.87
Percent Heavy Veh, %	0
Cap, veh/h	818
Arrive On Green	0.51
Sat Flow, veh/h	1607
Grp Volume(v), veh/h	39
Grp Sat Flow(s),veh/h/ln	1607
Q Serve(g_s), s	1.0
Cycle Q Clear(g_c), s	1.0
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	818
V/C Ratio(X)	0.05
Avail Cap(c_a), veh/h	818
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	9.9
Incr Delay (d2), s/veh	0.1
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	0.3
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	10.0
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	61	0	0	32	63	1281	4	63	1252	19
Future Vol, veh/h	0	0	61	0	0	32	63	1281	4	63	1252	19
Conflicting Peds, #/hr	2	0	0	0	0	2	7	0	0	0	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	150	-	50	125	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	73	0	0	39	76	1543	5	76	1508	23

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	761	-	-	774	1538	0	0	1548	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.9	-	-	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.3	-	-	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	0	352	0	0	346	438	-	-	434	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	350	-	-	345	435	-	-	434	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18	16.7	0.7	0.7
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	435	-	-	350	345	434	-	-
HCM Lane V/C Ratio	0.174	-	-	0.21	0.112	0.175	-	-
HCM Control Delay (s)	15	-	-	18	16.7	15	-	-
HCM Lane LOS	C	-	-	C	C	C	-	-
HCM 95th %tile Q(veh)	0.6	-	-	0.8	0.4	0.6	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	1	0	0	50	0	1313	19	0	1293	7
Future Vol, veh/h	0	0	1	0	0	50	0	1313	19	0	1293	7
Conflicting Peds, #/hr	0	0	0	0	0	0	11	0	0	0	0	11
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	1	0	0	60	0	1582	23	0	1558	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	794	-	-	803	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.1	-	-	6.9	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.9	-	-	3.3	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*613	0	0	*528	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			1			1		-	-		-	-
Mov Cap-1 Maneuver	-	-	*607	-	-	*528	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

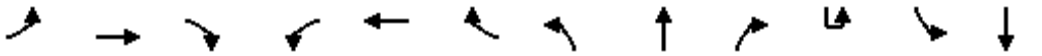
Approach	EB	WB	NB	SB
HCM Control Delay, s	10.9	12.7	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	607	528	-	-
HCM Lane V/C Ratio	-	-	0.002	0.114	-	-
HCM Control Delay (s)	-	-	10.9	12.7	-	-
HCM Lane LOS	-	-	B	B	-	-
HCM 95th %tile Q(veh)	-	-	0	0.4	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th Signalized Intersection Summary
4: Perris Boulevard & Dracaea Avenue

Perris/Dracaea Commercial Project
Project Completion (2022) WP - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	69	109	54	141	136	71	52	1179	72	13	59	1132
Future Volume (veh/h)	69	109	54	141	136	71	52	1179	72	13	59	1132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900		1900	1900
Adj Flow Rate, veh/h	82	130	64	168	162	85	62	1404	86		70	1348
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84		0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		0	0
Cap, veh/h	197	289	513	187	148	70	213	1424	87		213	1489
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.16	0.55	0.55		0.16	0.55
Sat Flow, veh/h	421	902	1604	387	463	219	1810	3453	211		1810	3610
Grp Volume(v), veh/h	212	0	64	415	0	0	62	732	758		70	1348
Grp Sat Flow(s),veh/h/ln	1322	0	1604	1069	0	0	1810	1805	1859		1810	1805
Q Serve(g_s), s	0.0	0.0	2.3	16.4	0.0	0.0	2.4	31.8	32.2		2.8	26.8
Cycle Q Clear(g_c), s	9.2	0.0	2.3	25.6	0.0	0.0	2.4	31.8	32.2		2.8	26.8
Prop In Lane	0.39		1.00	0.40		0.20	1.00		0.11		1.00	
Lane Grp Cap(c), veh/h	486	0	513	405	0	0	213	745	767		213	1489
V/C Ratio(X)	0.44	0.00	0.12	1.02	0.00	0.00	0.29	0.98	0.99		0.33	0.91
Avail Cap(c_a), veh/h	486	0	513	405	0	0	213	745	767		213	1489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33		1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.51	0.51	0.51		1.00	1.00
Uniform Delay (d), s/veh	21.2	0.0	19.3	31.6	0.0	0.0	30.8	17.8	17.9		30.9	16.7
Incr Delay (d2), s/veh	0.6	0.0	0.1	50.9	0.0	0.0	0.4	19.8	20.7		0.9	9.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.8	13.6	0.0	0.0	1.0	13.9	14.6		1.2	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.9	0.0	19.4	82.5	0.0	0.0	31.2	37.6	38.6		31.8	26.1
LnGrp LOS	C	A	B	F	A	A	C	D	D		C	C
Approach Vol, veh/h		276			415			1552				1524
Approach Delay, s/veh		21.3			82.5			37.8				25.4
Approach LOS		C			F			D				C

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.4	37.0		29.6	13.4	37.0		29.6				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	9.4	33.0		25.6	9.4	33.0		25.6				
Max Q Clear Time (g_c+I1), s	4.8	34.2		11.2	4.4	28.8		27.6				
Green Ext Time (p_c), s	0.0	0.0		1.2	0.0	3.2		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			36.5									
HCM 6th LOS			D									

Notes

User approved ignoring U-Turning movement.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	89
Future Volume (veh/h)	89
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.97
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	106
Peak Hour Factor	0.84
Percent Heavy Veh, %	0
Cap, veh/h	642
Arrive On Green	0.55
Sat Flow, veh/h	1557
Grp Volume(v), veh/h	106
Grp Sat Flow(s),veh/h/ln	1557
Q Serve(g_s), s	2.7
Cycle Q Clear(g_c), s	2.7
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	642
V/C Ratio(X)	0.16
Avail Cap(c_a), veh/h	642
HCM Platoon Ratio	1.33
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	11.2
Incr Delay (d2), s/veh	0.6
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	1.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	11.8
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	237	57	65	293	186	63	1052	52	155	1052	132
Future Volume (veh/h)	109	237	57	65	293	186	63	1052	52	155	1052	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	131	286	69	78	353	224	76	1267	63	187	1267	159
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	166	675	160	130	406	343	129	1241	552	273	1528	676
Arrive On Green	0.09	0.23	0.23	0.07	0.21	0.21	0.07	0.34	0.34	0.15	0.42	0.42
Sat Flow, veh/h	1810	2892	686	1810	1900	1603	1810	3610	1605	1810	3610	1597
Grp Volume(v), veh/h	131	177	178	78	353	224	76	1267	63	187	1267	159
Grp Sat Flow(s),veh/h/ln	1810	1805	1773	1810	1900	1603	1810	1805	1605	1810	1805	1597
Q Serve(g_s), s	5.7	6.7	6.9	3.3	14.4	7.0	3.3	27.5	1.6	7.8	24.9	5.1
Cycle Q Clear(g_c), s	5.7	6.7	6.9	3.3	14.4	7.0	3.3	27.5	1.6	7.8	24.9	5.1
Prop In Lane	1.00		0.39	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	166	421	414	130	406	343	129	1241	552	273	1528	676
V/C Ratio(X)	0.79	0.42	0.43	0.60	0.87	0.65	0.59	1.02	0.11	0.68	0.83	0.24
Avail Cap(c_a), veh/h	249	421	414	249	439	371	192	1241	552	273	1528	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.44	0.44	0.44
Uniform Delay (d), s/veh	35.6	26.1	26.1	36.0	30.4	13.3	36.0	26.3	9.8	32.2	20.5	14.8
Incr Delay (d2), s/veh	9.5	0.7	0.7	4.3	16.1	3.7	4.2	31.0	0.4	3.1	2.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	2.9	2.9	1.6	8.1	0.4	1.6	16.4	0.8	3.6	10.2	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	26.7	26.8	40.3	46.4	17.0	40.2	57.2	10.2	35.3	22.9	15.1
LnGrp LOS	D	C	C	D	D	B	D	F	B	D	C	B
Approach Vol, veh/h		486			655			1406			1613	
Approach Delay, s/veh		31.7			35.6			54.2			23.6	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.1	31.5	9.8	22.7	9.7	37.9	11.3	21.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	27.5	11.0	18.5	8.5	26.0	11.0	18.5
Max Q Clear Time (g_c+I1), s	9.8	29.5	5.3	8.9	5.3	26.9	7.7	16.4
Green Ext Time (p_c), s	0.0	0.0	0.1	1.4	0.0	0.0	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	36.8
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	110	129	243	37	34	105
Future Vol, veh/h	110	129	243	37	34	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	110	129	243	37	34	105

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	280	0	-	0	611	262
Stage 1	-	-	-	-	262	-
Stage 2	-	-	-	-	349	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1294	-	-	-	460	782
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	719	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1294	-	-	-	418	782
Mov Cap-2 Maneuver	-	-	-	-	418	-
Stage 1	-	-	-	-	714	-
Stage 2	-	-	-	-	719	-

Approach	EB	WB	SB
HCM Control Delay, s	3.7	0	12.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1294	-	-	-	645
HCM Lane V/C Ratio	0.085	-	-	-	0.216
HCM Control Delay (s)	8	0	-	-	12.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.8

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	20	47	0	14	18	0
Future Vol, veh/h	20	47	0	14	18	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	24	57	0	17	22	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	81	0	70	53
Stage 1	-	-	-	-	53	-
Stage 2	-	-	-	-	17	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1529	-	939	1020
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	1011	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1529	-	939	1020
Mov Cap-2 Maneuver	-	-	-	-	939	-
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	1011	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	939	-	-	1529	-
HCM Lane V/C Ratio	0.023	-	-	-	-
HCM Control Delay (s)	8.9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th Signalized Intersection Summary
1: Perris Boulevard & Eucalyptus Avenue

Perris/Dracaea Commercial Project
Project Completion (2022) WP - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	60	200	94	65	135	114	4	65	1122	73	103	1255
Future Volume (veh/h)	60	200	94	65	135	114	4	65	1122	73	103	1255
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00		1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No				No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900		1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	63	211	99	68	142	120		68	1181	77	108	1321
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0		0	0	0	0	0
Cap, veh/h	105	267	225	108	270	228		108	1624	708	344	2097
Arrive On Green	0.06	0.14	0.14	0.06	0.14	0.14		0.02	0.15	0.15	0.19	0.58
Sat Flow, veh/h	1810	1900	1603	1810	1900	1610		1810	3610	1573	1810	3610
Grp Volume(v), veh/h	63	211	99	68	142	120		68	1181	77	108	1321
Grp Sat Flow(s),veh/h/ln	1810	1900	1603	1810	1900	1610		1810	1805	1573	1810	1805
Q Serve(g_s), s	3.4	10.7	5.7	3.7	6.9	4.7		3.7	31.2	3.2	5.1	24.2
Cycle Q Clear(g_c), s	3.4	10.7	5.7	3.7	6.9	4.7		3.7	31.2	3.2	5.1	24.2
Prop In Lane	1.00		1.00	1.00		1.00		1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	105	267	225	108	270	228		108	1625	708	344	2097
V/C Ratio(X)	0.60	0.79	0.44	0.63	0.53	0.53		0.63	0.73	0.11	0.31	0.63
Avail Cap(c_a), veh/h	199	475	401	127	399	338		163	1625	708	344	2097
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		0.33	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.0	41.6	39.4	46.0	39.8	18.7		47.9	36.7	14.1	34.9	13.9
Incr Delay (d2), s/veh	5.5	5.2	1.4	7.5	1.6	1.9		6.0	2.9	0.3	0.5	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	5.4	2.3	1.9	3.3	2.8		1.9	15.7	1.6	2.3	9.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.4	46.8	40.7	53.5	41.4	20.5		53.9	39.6	14.4	35.4	15.3
LnGrp LOS	D	D	D	D	D	C		D	D	B	D	B
Approach Vol, veh/h		373			330				1326			1481
Approach Delay, s/veh		46.0			36.3				38.9			16.6
Approach LOS		D			D				D			B

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	49.0	9.9	18.0	9.9	62.1	9.8	18.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	45.0	7.0	25.0	9.0	43.0	11.0	21.0
Max Q Clear Time (g_c+I1), s	7.1	33.2	5.7	12.7	5.7	26.2	5.4	8.9
Green Ext Time (p_c), s	0.0	6.6	0.0	1.2	0.0	9.3	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	49
Future Volume (veh/h)	49
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.97
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	52
Peak Hour Factor	0.95
Percent Heavy Veh, %	0
Cap, veh/h	911
Arrive On Green	0.58
Sat Flow, veh/h	1569
Grp Volume(v), veh/h	52
Grp Sat Flow(s),veh/h/ln	1569
Q Serve(g_s), s	1.4
Cycle Q Clear(g_c), s	1.4
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	911
V/C Ratio(X)	0.06
Avail Cap(c_a), veh/h	911
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	9.1
Incr Delay (d2), s/veh	0.1
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	0.5
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	9.2
LnGrp LOS	A
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	67	0	0	28	52	1248	2	82	1300	18
Future Vol, veh/h	0	0	67	0	0	28	52	1248	2	82	1300	18
Conflicting Peds, #/hr	0	0	0	0	0	0	4	0	0	0	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	150	-	50	125	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	69	0	0	29	54	1287	2	85	1340	19

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	674	-	-	644	1363	0	0	1289	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.9	-	-	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.3	-	-	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	0	402	0	0	420	511	-	-	545	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	400	-	-	420	509	-	-	545	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.9	14.2	0.5	0.8
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	509	-	-	400	420	545	-	-
HCM Lane V/C Ratio	0.105	-	-	0.173	0.069	0.155	-	-
HCM Control Delay (s)	12.9	-	-	15.9	14.2	12.8	-	-
HCM Lane LOS	B	-	-	C	B	B	-	-
HCM 95th %tile Q(veh)	0.4	-	-	0.6	0.2	0.5	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	39	0	1263	20	0	1359	2
Future Vol, veh/h	0	0	0	0	0	39	0	1263	20	0	1359	2
Conflicting Peds, #/hr	0	0	0	0	0	0	3	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	41	0	1316	21	0	1416	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	712	-	-	669	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.1	-	-	6.9	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.9	-	-	3.3	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*595	0	0	*546	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			1			1		-	-		-	-
Mov Cap-1 Maneuver	-	-	*593	-	-	*546	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

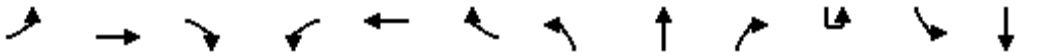
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	12.1	0	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	546	-	-
HCM Lane V/C Ratio	-	-	-	0.074	-	-
HCM Control Delay (s)	-	-	0	12.1	-	-
HCM Lane LOS	-	-	A	B	-	-
HCM 95th %tile Q(veh)	-	-	-	0.2	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th Signalized Intersection Summary
4: Perris Boulevard & Dracaea Avenue

Perris/Dracaea Commercial Project
Project Completion (2022) WP - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	74	129	23	83	99	50	30	1134	70	24	64	1199
Future Volume (veh/h)	74	129	23	83	99	50	30	1134	70	24	64	1199
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900		1900	1900
Adj Flow Rate, veh/h	77	134	24	86	103	52	31	1181	73		67	1249
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96		0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		0	0
Cap, veh/h	155	250	428	123	141	59	206	1912	118		107	1805
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.23	1.00	1.00		0.12	1.00
Sat Flow, veh/h	397	938	1608	280	529	223	1810	3447	213		1810	3610
Grp Volume(v), veh/h	211	0	24	241	0	0	31	618	636		67	1249
Grp Sat Flow(s),veh/h/ln	1334	0	1608	1032	0	0	1810	1805	1855		1810	1805
Q Serve(g_s), s	0.0	0.0	1.1	10.9	0.0	0.0	1.4	0.0	0.0		3.5	0.0
Cycle Q Clear(g_c), s	13.1	0.0	1.1	24.0	0.0	0.0	1.4	0.0	0.0		3.5	0.0
Prop In Lane	0.36		1.00	0.36		0.22	1.00		0.11		1.00	
Lane Grp Cap(c), veh/h	404	0	428	324	0	0	206	1001	1029		107	1805
V/C Ratio(X)	0.52	0.00	0.06	0.74	0.00	0.00	0.15	0.62	0.62		0.63	0.69
Avail Cap(c_a), veh/h	474	0	499	391	0	0	206	1001	1029		127	1805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00		2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.80	0.80	0.80		1.00	1.00
Uniform Delay (d), s/veh	31.2	0.0	27.3	37.6	0.0	0.0	34.8	0.0	0.0		43.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.1	6.1	0.0	0.0	0.3	2.3	2.2		7.1	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	0.4	6.3	0.0	0.0	0.6	0.6	0.6		1.7	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.2	0.0	27.4	43.7	0.0	0.0	35.0	2.3	2.2		50.1	2.2
LnGrp LOS	C	A	C	D	A	A	D	A	A		D	A
Approach Vol, veh/h		235			241			1285				1391
Approach Delay, s/veh		31.7			43.7			3.1				4.4
Approach LOS		C			D			A				A

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	59.5		30.6	15.4	54.0		30.6				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	7.0	50.0		31.0	7.0	50.0		31.0				
Max Q Clear Time (g_c+I1), s	5.5	2.0		15.1	3.4	2.0		26.0				
Green Ext Time (p_c), s	0.0	11.9		1.1	0.0	13.6		0.6				

Intersection Summary												
HCM 6th Ctrl Delay			8.9									
HCM 6th LOS			A									

Notes

User approved ignoring U-Turning movement.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	72
Future Volume (veh/h)	72
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.97
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	75
Peak Hour Factor	0.96
Percent Heavy Veh, %	0
Cap, veh/h	784
Arrive On Green	1.00
Sat Flow, veh/h	1568
Grp Volume(v), veh/h	75
Grp Sat Flow(s),veh/h/ln	1568
Q Serve(g_s), s	0.0
Cycle Q Clear(g_c), s	0.0
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	784
V/C Ratio(X)	0.10
Avail Cap(c_a), veh/h	784
HCM Platoon Ratio	2.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	0.0
Incr Delay (d2), s/veh	0.2
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	0.1
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	0.2
LnGrp LOS	A
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	209	80	24	142	102	68	1084	33	114	1153	98
Future Volume (veh/h)	108	209	80	24	142	102	68	1084	33	114	1153	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	110	213	82	24	145	104	69	1106	34	116	1177	100
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	141	396	147	62	209	173	108	1264	549	546	2138	930
Arrive On Green	0.08	0.15	0.15	0.03	0.11	0.11	0.06	0.35	0.35	0.60	1.00	1.00
Sat Flow, veh/h	1810	2568	956	1810	1900	1566	1810	3610	1570	1810	3610	1570
Grp Volume(v), veh/h	110	148	147	24	145	104	69	1106	34	116	1177	100
Grp Sat Flow(s),veh/h/ln	1810	1805	1719	1810	1900	1566	1810	1805	1570	1810	1805	1570
Q Serve(g_s), s	6.0	7.5	7.9	1.3	7.4	3.6	3.7	28.7	1.2	2.9	0.0	0.0
Cycle Q Clear(g_c), s	6.0	7.5	7.9	1.3	7.4	3.6	3.7	28.7	1.2	2.9	0.0	0.0
Prop In Lane	1.00		0.56	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	141	278	265	62	209	173	108	1264	549	546	2138	930
V/C Ratio(X)	0.78	0.53	0.56	0.39	0.69	0.60	0.64	0.88	0.06	0.21	0.55	0.11
Avail Cap(c_a), veh/h	407	433	413	308	352	290	127	1264	549	546	2138	930
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	45.3	39.0	39.1	47.3	42.9	13.8	46.0	30.5	14.7	14.4	0.0	0.0
Incr Delay (d2), s/veh	9.0	1.6	1.8	4.0	4.1	3.3	8.0	8.7	0.2	0.2	0.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.4	3.5	0.6	3.7	2.5	1.9	13.6	0.6	1.2	0.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.2	40.5	41.0	51.2	46.9	17.2	54.0	39.1	14.9	14.6	0.9	0.2
LnGrp LOS	D	D	D	D	D	B	D	D	B	B	A	A
Approach Vol, veh/h		405			273			1209			1393	
Approach Delay, s/veh		44.4			36.0			39.3			1.9	
Approach LOS		D			D			D			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	39.0	7.4	19.4	10.0	63.2	11.8	15.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	35.0	17.0	24.0	7.0	36.0	22.5	18.5
Max Q Clear Time (g_c+I1), s	14.9	30.7	3.3	9.9	5.7	2.0	8.0	9.4
Green Ext Time (p_c), s	0.1	2.8	0.0	1.4	0.0	11.5	0.2	0.7

Intersection Summary	
HCM 6th Ctrl Delay	23.8
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	71	192	158	24	24	75
Future Vol, veh/h	71	192	158	24	24	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	71	192	158	24	24	75

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	182	0	-	0	504	170
Stage 1	-	-	-	-	170	-
Stage 2	-	-	-	-	334	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1405	-	-	-	531	879
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	730	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1405	-	-	-	501	879
Mov Cap-2 Maneuver	-	-	-	-	501	-
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	730	-

Approach	EB	WB	SB
HCM Control Delay, s	2.1	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1405	-	-	-	743
HCM Lane V/C Ratio	0.051	-	-	-	0.133
HCM Control Delay (s)	7.7	0	-	-	10.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.5

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	45	39	0	17	11	0
Future Vol, veh/h	45	39	0	17	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	46	40	0	18	11	0

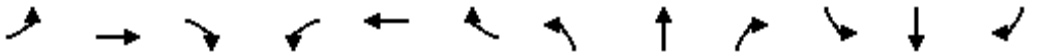
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	86	0	84	66
Stage 1	-	-	-	-	66	-
Stage 2	-	-	-	-	18	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1523	-	923	1003
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	1010	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1523	-	923	1003
Mov Cap-2 Maneuver	-	-	-	-	923	-
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	1010	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	923	-	-	1523	-
HCM Lane V/C Ratio	0.012	-	-	-	-
HCM Control Delay (s)	8.9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th Signalized Intersection Summary
1: Perris Boulevard & Eucalyptus Avenue

Perris/Dracaea Commercial Project
GPBO (2040) NP - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	170	150	92	401	216	129	1274	65	90	1438	92
Future Volume (veh/h)	58	170	150	92	401	216	129	1274	65	90	1438	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	58	170	150	92	401	216	129	1274	65	90	1438	92
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	115	241	200	303	439	371	158	1421	631	203	1510	672
Arrive On Green	0.06	0.13	0.13	0.17	0.23	0.23	0.17	0.79	0.79	0.11	0.42	0.42
Sat Flow, veh/h	1810	1900	1581	1810	1900	1608	1810	3610	1602	1810	3610	1606
Grp Volume(v), veh/h	58	170	150	92	401	216	129	1274	65	90	1438	92
Grp Sat Flow(s),veh/h/ln	1810	1900	1581	1810	1900	1608	1810	1805	1602	1810	1805	1606
Q Serve(g_s), s	2.5	6.9	5.8	3.6	16.5	6.9	5.5	20.4	0.8	3.7	30.8	2.8
Cycle Q Clear(g_c), s	2.5	6.9	5.8	3.6	16.5	6.9	5.5	20.4	0.8	3.7	30.8	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	115	241	200	303	439	371	158	1421	631	203	1510	672
V/C Ratio(X)	0.51	0.71	0.75	0.30	0.91	0.58	0.81	0.90	0.10	0.44	0.95	0.14
Avail Cap(c_a), veh/h	158	439	366	303	439	372	158	1421	631	203	1510	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	33.5	20.8	29.2	30.0	14.3	32.4	7.3	5.2	33.2	22.5	14.4
Incr Delay (d2), s/veh	3.4	3.8	5.5	0.6	23.4	2.3	26.8	9.1	0.3	1.5	14.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.3	3.0	1.6	10.1	2.6	3.3	4.5	0.3	1.7	15.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.7	37.3	26.3	29.8	53.4	16.6	59.2	16.5	5.6	34.7	36.8	14.8
LnGrp LOS	D	D	C	C	D	B	E	B	A	C	D	B
Approach Vol, veh/h		378			709			1468			1620	
Approach Delay, s/veh		33.3			39.1			19.7			35.5	
Approach LOS		C			D			B			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	35.5	17.4	14.1	11.0	37.5	9.1	22.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.5	7.0	18.5	7.0	31.5	7.0	18.5
Max Q Clear Time (g_c+I1), s	5.7	22.4	5.6	8.9	7.5	32.8	4.5	18.5
Green Ext Time (p_c), s	0.0	5.8	0.0	1.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	30.4
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	163.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↑↑	↱	↰	↑↑	↱
Traffic Vol, veh/h	16	3	43	50	11	59	61	1445	19	56	1654	18
Future Vol, veh/h	16	3	43	50	11	59	61	1445	19	56	1654	18
Conflicting Peds, #/hr	2	0	0	0	0	2	7	0	0	0	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	50	50	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	16	3	43	50	11	59	61	1445	19	56	1654	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2625	3359	834	2508	3358	725	1679	0	0	1464	0	0
Stage 1	1773	1773	-	1567	1567	-	-	-	-	-	-	-
Stage 2	852	1586	-	941	1791	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	~ 12	8	316	~ 15	~ 8	372	387	-	-	467	-	-
Stage 1	88	137	-	118	173	-	-	-	-	-	-	-
Stage 2	325	170	-	287	134	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	6	314	~ 6	~ 6	371	384	-	-	467	-	-
Mov Cap-2 Maneuver	-	6	-	~ 6	~ 6	-	-	-	-	-	-	-
Stage 1	74	120	-	99	145	-	-	-	-	-	-	-
Stage 2	212	143	-	213	117	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s		$ 4664.7	0.6	0.4
HCM LOS	-	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	384	-	-	-	12	467	-	-
HCM Lane V/C Ratio	0.159	-	-	-	10	0.12	-	-
HCM Control Delay (s)	16.1	-	-	-	$ 4664.7	13.8	-	-
HCM Lane LOS	C	-	-	-	F	B	-	-
HCM 95th %tile Q(veh)	0.6	-	-	-	16.3	0.4	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	0	1525	1747	7
Future Vol, veh/h	0	1	0	1525	1747	7
Conflicting Peds, #/hr	0	0	11	0	0	11
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	25
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1	0	1525	1747	7

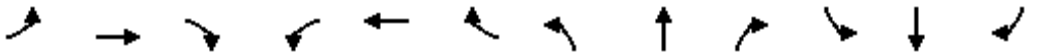
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2525	888	1765	0	-	0
Stage 1	1762	-	-	-	-	-
Stage 2	763	-	-	-	-	-
Critical Hdwy	6.25	7.1	5.3	-	-	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.65	3.9	3.1	-	-	-
Pot Cap-1 Maneuver	34	249	168	-	-	-
Stage 1	84	-	-	-	-	-
Stage 2	414	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	33	246	166	-	-	-
Mov Cap-2 Maneuver	70	-	-	-	-	-
Stage 1	83	-	-	-	-	-
Stage 2	410	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	166	-	246	-	-
HCM Lane V/C Ratio	-	-	0.004	-	-
HCM Control Delay (s)	0	-	19.7	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th Signalized Intersection Summary
4: Perris Boulevard & Dracaea Avenue

Perris/Dracaea Commercial Project
GPBO (2040) NP - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	79	60	77	147	91	75	1342	22	43	1527	177
Future Volume (veh/h)	92	79	60	77	147	91	75	1342	22	43	1527	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	92	79	60	77	147	91	75	1342	22	43	1527	177
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	206	158	468	116	193	103	264	1499	25	264	1489	642
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.19	0.55	0.55	0.19	0.55	0.55
Sat Flow, veh/h	468	542	1604	204	663	352	1810	3634	60	1810	3610	1557
Grp Volume(v), veh/h	171	0	60	315	0	0	75	666	698	43	1527	177
Grp Sat Flow(s),veh/h/ln	1010	0	1604	1220	0	0	1810	1805	1888	1810	1805	1557
Q Serve(g_s), s	0.0	0.0	2.2	9.6	0.0	0.0	2.8	26.2	26.2	1.6	33.0	4.8
Cycle Q Clear(g_c), s	11.2	0.0	2.2	20.8	0.0	0.0	2.8	26.2	26.2	1.6	33.0	4.8
Prop In Lane	0.54		1.00	0.24		0.29	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	364	0	468	412	0	0	264	745	779	264	1489	642
V/C Ratio(X)	0.47	0.00	0.13	0.77	0.00	0.00	0.28	0.89	0.90	0.16	1.03	0.28
Avail Cap(c_a), veh/h	404	0	513	457	0	0	264	745	779	264	1489	642
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.58	0.58	0.58	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	0.0	20.9	28.1	0.0	0.0	28.7	16.5	16.5	28.2	18.1	11.7
Incr Delay (d2), s/veh	0.9	0.0	0.1	6.9	0.0	0.0	0.3	9.9	9.6	0.3	30.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.8	6.4	0.0	0.0	1.2	10.1	10.5	0.7	16.4	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.4	0.0	21.0	34.9	0.0	0.0	29.0	26.4	26.1	28.5	48.1	12.8
LnGrp LOS	C	A	C	C	A	A	C	C	C	C	F	B
Approach Vol, veh/h		231			315			1439			1747	
Approach Delay, s/veh		23.5			34.9			26.4			44.0	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.7	37.0		27.3	15.7	37.0		27.3				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	9.4	33.0		25.6	9.4	33.0		25.6				
Max Q Clear Time (g_c+I1), s	3.6	28.2		13.2	4.8	35.0		22.8				
Green Ext Time (p_c), s	0.0	3.4		0.9	0.0	0.0		0.5				

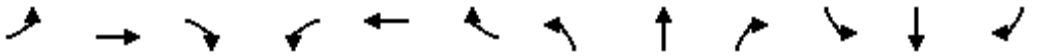
Intersection Summary			
HCM 6th Ctrl Delay		35.2	
HCM 6th LOS		D	

Notes

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
5: Perris Boulevard & Cottonwood Avenue

Perris/Dracaea Commercial Project
GPBO (2040) NP - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	239	69	90	349	172	96	1213	78	162	1383	139
Future Volume (veh/h)	97	239	69	90	349	172	96	1213	78	162	1383	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	97	239	69	90	349	172	96	1213	78	162	1383	139
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	140	617	174	137	419	353	140	1151	512	332	1535	679
Arrive On Green	0.08	0.22	0.22	0.08	0.22	0.22	0.08	0.32	0.32	0.24	0.57	0.57
Sat Flow, veh/h	1810	2777	783	1810	1900	1604	1810	3610	1605	1810	3610	1597
Grp Volume(v), veh/h	97	153	155	90	349	172	96	1213	78	162	1383	139
Grp Sat Flow(s),veh/h/ln	1810	1805	1755	1810	1900	1604	1810	1805	1605	1810	1805	1597
Q Serve(g_s), s	4.2	5.8	6.0	3.9	14.0	4.8	4.1	25.5	2.1	6.1	27.2	3.4
Cycle Q Clear(g_c), s	4.2	5.8	6.0	3.9	14.0	4.8	4.1	25.5	2.1	6.1	27.2	3.4
Prop In Lane	1.00		0.45	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	140	401	390	137	419	353	140	1151	512	332	1535	679
V/C Ratio(X)	0.69	0.38	0.40	0.66	0.83	0.49	0.69	1.05	0.15	0.49	0.90	0.20
Avail Cap(c_a), veh/h	192	519	505	192	546	461	158	1151	512	332	1535	679
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.54	0.54	0.54
Uniform Delay (d), s/veh	36.0	26.5	26.5	36.0	29.8	11.0	36.0	27.2	10.7	27.0	15.9	10.7
Incr Delay (d2), s/veh	6.2	0.6	0.7	5.3	8.4	1.0	10.1	42.0	0.6	0.6	5.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	2.5	2.5	1.9	7.2	2.7	2.2	17.1	1.1	2.6	9.3	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.2	27.1	27.2	41.2	38.2	12.1	46.1	69.3	11.4	27.6	21.1	11.1
LnGrp LOS	D	C	C	D	D	B	D	F	B	C	C	B
Approach Vol, veh/h		405			611			1387			1684	
Approach Delay, s/veh		30.7			31.3			64.4			20.9	
Approach LOS		C			C			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.7	29.5	10.1	21.8	10.2	38.0	10.2	21.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	25.5	8.5	23.0	7.0	25.5	8.5	23.0
Max Q Clear Time (g_c+I1), s	8.1	27.5	5.9	8.0	6.1	29.2	6.2	16.0
Green Ext Time (p_c), s	0.0	0.0	0.0	1.5	0.0	0.0	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	38.2
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	76	1	0	119	2	0
Future Vol, veh/h	76	1	0	119	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	76	1	0	119	2	0

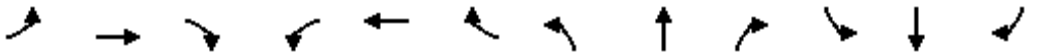
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	77	0	196	77
Stage 1	-	-	-	-	77	-
Stage 2	-	-	-	-	119	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1535	-	797	990
Stage 1	-	-	-	-	951	-
Stage 2	-	-	-	-	911	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1535	-	797	990
Mov Cap-2 Maneuver	-	-	-	-	797	-
Stage 1	-	-	-	-	951	-
Stage 2	-	-	-	-	911	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	797	-	-	1535	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	9.5	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th Signalized Intersection Summary
1: Perris Boulevard & Eucalyptus Avenue

Perris/Dracaea Commercial Project
GPBO (2040) NP - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	516	265	78	301	140	147	1551	88	111	1490	100
Future Volume (veh/h)	149	516	265	78	301	140	147	1551	88	111	1490	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	149	516	265	78	301	140	147	1551	88	111	1490	100
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	180	475	402	112	404	342	163	1624	708	141	1581	686
Arrive On Green	0.10	0.25	0.25	0.06	0.21	0.21	0.03	0.15	0.15	0.08	0.44	0.44
Sat Flow, veh/h	1810	1900	1606	1810	1900	1610	1810	3610	1573	1810	3610	1566
Grp Volume(v), veh/h	149	516	265	78	301	140	147	1551	88	111	1490	100
Grp Sat Flow(s),veh/h/ln	1810	1900	1606	1810	1900	1610	1810	1805	1573	1810	1805	1566
Q Serve(g_s), s	8.1	25.0	14.8	4.2	14.8	6.0	8.1	42.6	3.6	6.0	39.5	3.8
Cycle Q Clear(g_c), s	8.1	25.0	14.8	4.2	14.8	6.0	8.1	42.6	3.6	6.0	39.5	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	180	475	402	112	404	342	163	1625	708	141	1581	686
V/C Ratio(X)	0.83	1.09	0.66	0.70	0.75	0.41	0.90	0.95	0.12	0.79	0.94	0.15
Avail Cap(c_a), veh/h	199	475	402	127	404	342	163	1625	708	141	1581	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.2	37.5	33.7	46.0	36.8	21.7	48.1	41.6	14.0	45.3	26.9	16.9
Incr Delay (d2), s/veh	22.5	66.6	4.0	13.3	7.4	0.8	43.5	13.9	0.4	24.8	12.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	20.2	6.1	2.3	7.6	2.9	5.8	23.6	1.9	3.7	18.9	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.7	104.1	37.6	59.3	44.2	22.5	91.6	55.5	14.4	70.1	39.4	17.3
LnGrp LOS	E	F	D	E	D	C	F	E	B	E	D	B
Approach Vol, veh/h		930			519			1786			1701	
Approach Delay, s/veh		79.2			40.6			56.4			40.1	
Approach LOS		E			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	49.0	10.2	29.0	13.0	47.8	14.0	25.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	45.0	7.0	25.0	9.0	43.0	11.0	21.0
Max Q Clear Time (g_c+I1), s	8.0	44.6	6.2	27.0	10.1	41.5	10.1	16.8
Green Ext Time (p_c), s	0.0	0.3	0.0	0.0	0.0	1.3	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	53.4
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	3	51	40	4	58	74	1855	12	153	1776	18
Future Vol, veh/h	30	3	51	40	4	58	74	1855	12	153	1776	18
Conflicting Peds, #/hr	0	0	0	0	0	0	4	0	0	0	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	50	50	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	30	3	51	40	4	58	74	1855	12	153	1776	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	3164	4101	892	3199	4107	928	1798	0	0	1867	0	0
Stage 1	2086	2086	-	2003	2003	-	-	-	-	-	-	-
Stage 2	1078	2015	-	1196	2104	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	~ 5	3	289	~ 4	~ 2	274	348	-	-	327	-	-
Stage 1	56	96	-	63	105	-	-	-	-	-	-	-
Stage 2	237	104	-	201	94	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 1	288	-	~ 1	274	347	-	-	327	-	-
Mov Cap-2 Maneuver	-	~ 1	-	-	~ 1	-	-	-	-	-	-	-
Stage 1	44	51	-	50	83	-	-	-	-	-	-	-
Stage 2	140	82	-	83	50	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.7	2
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	347	-	-	-	-	327	-	-
HCM Lane V/C Ratio	0.213	-	-	-	-	0.468	-	-
HCM Control Delay (s)	18.2	-	-	-	-	25.3	-	-
HCM Lane LOS	C	-	-	-	-	D	-	-
HCM 95th %tile Q(veh)	0.8	-	-	-	-	2.4	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	1941	1867	2
Future Vol, veh/h	0	0	0	1941	1867	2
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	25
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	1941	1867	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2842	938	1872	0	-	0
Stage 1	1871	-	-	-	-	-
Stage 2	971	-	-	-	-	-
Critical Hdwy	6.25	7.1	5.3	-	-	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.65	3.9	3.1	-	-	-
Pot Cap-1 Maneuver	*345	*488	*615	-	-	-
Stage 1	*522	-	-	-	-	-
Stage 2	*238	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*343	*487	*613	-	-	-
Mov Cap-2 Maneuver	*72	-	-	-	-	-
Stage 1	*520	-	-	-	-	-
Stage 2	*237	-	-	-	-	-

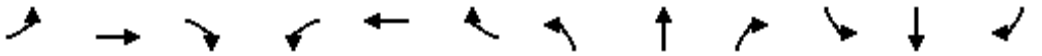
Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 613	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th Signalized Intersection Summary
4: Perris Boulevard & Dracaea Avenue

Perris/Dracaea Commercial Project
GPBO (2040) NP - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	258	344	81	48	118	72	50	1611	53	70	1679	118
Future Volume (veh/h)	258	344	81	48	118	72	50	1611	53	70	1679	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	258	344	81	48	118	72	50	1611	53	70	1679	118
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	157	141	499	43	96	42	127	1817	60	109	1805	784
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.07	0.51	0.51	0.12	1.00	1.00
Sat Flow, veh/h	341	454	1609	0	311	135	1810	3564	117	1810	3610	1568
Grp Volume(v), veh/h	602	0	81	238	0	0	50	813	851	70	1679	118
Grp Sat Flow(s),veh/h/ln	795	0	1609	446	0	0	1810	1805	1875	1810	1805	1568
Q Serve(g_s), s	0.0	0.0	3.7	0.0	0.0	0.0	2.6	40.2	40.7	3.7	0.0	0.0
Cycle Q Clear(g_c), s	31.0	0.0	3.7	31.0	0.0	0.0	2.6	40.2	40.7	3.7	0.0	0.0
Prop In Lane	0.43		1.00	0.20		0.30	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	298	0	499	182	0	0	127	921	956	109	1805	784
V/C Ratio(X)	2.02	0.00	0.16	1.31	0.00	0.00	0.39	0.88	0.89	0.64	0.93	0.15
Avail Cap(c_a), veh/h	298	0	499	182	0	0	127	921	956	127	1805	784
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.47	0.47	0.47	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	0.0	25.1	29.3	0.0	0.0	44.5	21.9	22.0	43.0	0.0	0.0
Incr Delay (d2), s/veh	471.4	0.0	0.2	173.7	0.0	0.0	0.9	6.2	6.3	8.5	10.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	46.4	0.0	1.4	12.0	0.0	0.0	1.2	17.5	18.4	1.8	2.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	508.6	0.0	25.2	203.0	0.0	0.0	45.4	28.1	28.3	51.5	10.1	0.4
LnGrp LOS	F	A	C	F	A	A	D	C	C	D	B	A
Approach Vol, veh/h		683			238			1714			1867	
Approach Delay, s/veh		451.3			203.0			28.7			11.0	
Approach LOS		F			F			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	55.0		35.0	11.0	54.0		35.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	7.0	50.0		31.0	7.0	50.0		31.0				
Max Q Clear Time (g_c+I1), s	5.7	42.7		33.0	4.6	2.0		33.0				
Green Ext Time (p_c), s	0.0	5.7		0.0	0.0	22.5		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		94.7	
HCM 6th LOS		F	

Notes

User approved ignoring U-Turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	374	137	41	221	173	80	1408	43	165	1567	126
Future Volume (veh/h)	190	374	137	41	221	173	80	1408	43	165	1567	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	190	374	137	41	221	173	80	1408	43	165	1567	126
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	227	581	210	86	277	229	113	1264	549	396	1827	794
Arrive On Green	0.13	0.22	0.22	0.05	0.15	0.15	0.06	0.35	0.35	0.29	0.67	0.67
Sat Flow, veh/h	1810	2594	937	1810	1900	1572	1810	3610	1570	1810	3610	1569
Grp Volume(v), veh/h	190	259	252	41	221	173	80	1408	43	165	1567	126
Grp Sat Flow(s),veh/h/ln	1810	1805	1725	1810	1900	1572	1810	1805	1570	1810	1805	1569
Q Serve(g_s), s	10.3	13.0	13.3	2.2	11.2	6.9	4.3	35.0	1.5	7.4	33.6	2.9
Cycle Q Clear(g_c), s	10.3	13.0	13.3	2.2	11.2	6.9	4.3	35.0	1.5	7.4	33.6	2.9
Prop In Lane	1.00		0.54	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	227	404	386	86	277	229	113	1264	549	396	1827	794
V/C Ratio(X)	0.84	0.64	0.65	0.48	0.80	0.75	0.71	1.11	0.08	0.42	0.86	0.16
Avail Cap(c_a), veh/h	407	433	414	308	352	291	127	1264	549	396	1827	794
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.40	0.40	0.40
Uniform Delay (d), s/veh	42.7	35.2	35.3	46.4	41.3	17.3	46.0	32.5	14.0	30.3	13.5	8.5
Incr Delay (d2), s/veh	7.9	2.9	3.3	4.0	9.7	8.2	14.7	62.8	0.3	0.3	2.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	6.0	5.9	1.1	6.0	3.0	2.4	25.8	0.7	3.1	10.3	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	38.0	38.6	50.4	50.9	25.5	60.7	95.3	14.3	30.6	15.8	8.7
LnGrp LOS	D	D	D	D	D	C	E	F	B	C	B	A
Approach Vol, veh/h		701			435			1531			1858	
Approach Delay, s/veh		41.7			40.8			91.2			16.7	
Approach LOS		D			D			F			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.9	39.0	8.8	26.4	10.2	54.6	16.6	18.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	35.0	17.0	24.0	7.0	36.0	22.5	18.5
Max Q Clear Time (g_c+I1), s	19.4	37.0	4.2	15.3	6.3	35.6	12.3	13.2
Green Ext Time (p_c), s	0.0	0.0	0.0	2.0	0.0	0.4	0.4	0.9

Intersection Summary	
HCM 6th Ctrl Delay	48.1
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	165	2	0	101	1	0
Future Vol, veh/h	165	2	0	101	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	165	2	0	101	1	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	167	0	267	166
Stage 1	-	-	-	-	166	-
Stage 2	-	-	-	-	101	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1423	-	727	884
Stage 1	-	-	-	-	868	-
Stage 2	-	-	-	-	928	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1423	-	727	884
Mov Cap-2 Maneuver	-	-	-	-	727	-
Stage 1	-	-	-	-	868	-
Stage 2	-	-	-	-	928	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	727	-	-	1423	-
HCM Lane V/C Ratio	0.001	-	-	-	-
HCM Control Delay (s)	10	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th Signalized Intersection Summary
1: Perris Boulevard & Eucalyptus Avenue

Perris/Dracaea Commercial Project
GPBO (2040) WP - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	61	170	167	109	401	216	61	145	1279	81	90	1446
Future Volume (veh/h)	61	170	167	109	401	216	61	145	1279	81	90	1446
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00		1.00		0.99	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No				No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900		1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	61	170	167	109	401	216		145	1279	81	90	1446
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0		0	0	0	0	0
Cap, veh/h	118	242	201	305	439	371		158	1421	631	200	1504
Arrive On Green	0.06	0.13	0.13	0.17	0.23	0.23		0.17	0.79	0.79	0.11	0.42
Sat Flow, veh/h	1810	1900	1581	1810	1900	1608		1810	3610	1602	1810	3610
Grp Volume(v), veh/h	61	170	167	109	401	216		145	1279	81	90	1446
Grp Sat Flow(s),veh/h/ln	1810	1900	1581	1810	1900	1608		1810	1805	1602	1810	1805
Q Serve(g_s), s	2.6	6.9	6.5	4.3	16.5	6.9		6.3	20.7	1.0	3.7	31.2
Cycle Q Clear(g_c), s	2.6	6.9	6.5	4.3	16.5	6.9		6.3	20.7	1.0	3.7	31.2
Prop In Lane	1.00		1.00	1.00		1.00		1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	118	242	201	305	439	371		158	1421	631	200	1504
V/C Ratio(X)	0.52	0.70	0.83	0.36	0.91	0.58		0.92	0.90	0.13	0.45	0.96
Avail Cap(c_a), veh/h	158	439	366	305	439	372		158	1421	631	200	1504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		2.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.2	33.5	21.0	29.4	30.0	14.4		32.7	7.3	5.3	33.3	22.7
Incr Delay (d2), s/veh	3.5	3.7	8.5	0.7	23.4	2.3		47.6	9.4	0.4	1.6	15.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.3	0.5	1.9	10.1	2.6		4.5	4.6	0.4	1.7	15.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.7	37.2	29.5	30.1	53.4	16.7		80.3	16.8	5.7	34.9	38.4
LnGrp LOS	D	D	C	C	D	B		F	B	A	C	D
Approach Vol, veh/h		398			726				1505			1628
Approach Delay, s/veh		34.3			39.0				22.3			36.9
Approach LOS		C			D				C			D

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.8	35.5	17.5	14.2	11.0	37.3	9.2	22.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.5	7.0	18.5	7.0	31.5	7.0	18.5
Max Q Clear Time (g_c+I1), s	5.7	22.7	6.3	8.9	8.3	33.2	4.6	18.5
Green Ext Time (p_c), s	0.0	5.7	0.0	1.1	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	31.8
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	92
Future Volume (veh/h)	92
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	92
Peak Hour Factor	1.00
Percent Heavy Veh, %	0
Cap, veh/h	669
Arrive On Green	0.42
Sat Flow, veh/h	1606
Grp Volume(v), veh/h	92
Grp Sat Flow(s),veh/h/ln	1606
Q Serve(g_s), s	2.8
Cycle Q Clear(g_c), s	2.8
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	669
V/C Ratio(X)	0.14
Avail Cap(c_a), veh/h	669
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	14.4
Incr Delay (d2), s/veh	0.4
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	1.1
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	14.9
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	67	0	0	136	69	1482	22	102	1700	29
Future Vol, veh/h	0	0	67	0	0	136	69	1482	22	102	1700	29
Conflicting Peds, #/hr	2	0	0	0	0	2	7	0	0	0	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	150	-	50	125	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	67	0	0	136	69	1482	22	102	1700	29

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	857	-	-	743	1736	0	0	1504	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.9	-	-	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.3	-	-	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	0	305	0	0	362	368	-	-	451	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	303	-	-	361	366	-	-	451	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.2	20.9	0.8	0.9
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	366	-	-	303	361	451	-	-
HCM Lane V/C Ratio	0.189	-	-	0.221	0.377	0.226	-	-
HCM Control Delay (s)	17.1	-	-	20.2	20.9	15.3	-	-
HCM Lane LOS	C	-	-	C	C	C	-	-
HCM 95th %tile Q(veh)	0.7	-	-	0.8	1.7	0.9	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	1	0	0	50	0	1522	19	0	1767	7
Future Vol, veh/h	0	0	1	0	0	50	0	1522	19	0	1767	7
Conflicting Peds, #/hr	0	0	0	0	0	0	11	0	0	0	0	11
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	1	0	0	50	0	1522	19	0	1767	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	898	-	-	771	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.1	-	-	6.9	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.9	-	-	3.3	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*513	0	0	*449	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			1			1		-	-		-	-
Mov Cap-1 Maneuver	-	-	*508	-	-	*449	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.1	14	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	508	449	-	-
HCM Lane V/C Ratio	-	-	0.002	0.111	-	-
HCM Control Delay (s)	-	-	12.1	14	-	-
HCM Lane LOS	-	-	B	B	-	-
HCM 95th %tile Q(veh)	-	-	0	0.4	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th Signalized Intersection Summary
4: Perris Boulevard & Dracaea Avenue

Perris/Dracaea Commercial Project
GPBO (2040) WP - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	92	113	59	144	181	91	74	1342	73	16	67	1508
Future Volume (veh/h)	92	113	59	144	181	91	74	1342	73	16	67	1508
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900		1900	1900
Adj Flow Rate, veh/h	92	113	59	144	181	91	74	1342	73		67	1508
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		0	0
Cap, veh/h	215	242	552	177	192	86	204	1370	74		204	1421
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.15	0.52	0.52		0.15	0.52
Sat Flow, veh/h	436	705	1605	338	559	251	1810	3479	189		1810	3610
Grp Volume(v), veh/h	205	0	59	416	0	0	74	695	720		67	1508
Grp Sat Flow(s),veh/h/ln	1142	0	1605	1148	0	0	1810	1805	1863		1810	1805
Q Serve(g_s), s	0.0	0.0	2.0	17.4	0.0	0.0	2.9	30.1	30.3		2.6	31.5
Cycle Q Clear(g_c), s	10.1	0.0	2.0	27.5	0.0	0.0	2.9	30.1	30.3		2.6	31.5
Prop In Lane	0.45		1.00	0.35		0.22	1.00		0.10		1.00	
Lane Grp Cap(c), veh/h	458	0	552	455	0	0	204	711	734		204	1421
V/C Ratio(X)	0.45	0.00	0.11	0.91	0.00	0.00	0.36	0.98	0.98		0.33	1.06
Avail Cap(c_a), veh/h	458	0	552	455	0	0	204	711	734		204	1421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33		1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.53	0.53	0.53		1.00	1.00
Uniform Delay (d), s/veh	20.1	0.0	17.9	29.3	0.0	0.0	31.4	18.7	18.8		31.3	19.1
Incr Delay (d2), s/veh	0.7	0.0	0.1	22.8	0.0	0.0	0.6	19.8	20.2		0.9	41.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.7	10.7	0.0	0.0	1.3	13.5	14.1		1.2	18.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	0.0	18.0	52.1	0.0	0.0	32.0	38.5	39.0		32.2	60.9
LnGrp LOS	C	A	B	D	A	A	C	D	D		C	F
Approach Vol, veh/h		264			416			1489				1750
Approach Delay, s/veh		20.1			52.1			38.4				55.1
Approach LOS		C			D			D				E

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	35.5		31.5	13.0	35.5		31.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	9.0	31.5		27.5	9.0	31.5		27.5				
Max Q Clear Time (g_c+I1), s	4.6	32.3		12.1	4.9	33.5		29.5				
Green Ext Time (p_c), s	0.0	0.0		1.2	0.0	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			46.1									
HCM 6th LOS			D									

Notes

User approved ignoring U-Turning movement.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	175
Future Volume (veh/h)	175
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.97
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	175
Peak Hour Factor	1.00
Percent Heavy Veh, %	0
Cap, veh/h	613
Arrive On Green	0.52
Sat Flow, veh/h	1556
Grp Volume(v), veh/h	175
Grp Sat Flow(s),veh/h/ln	1556
Q Serve(g_s), s	5.0
Cycle Q Clear(g_c), s	5.0
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	613
V/C Ratio(X)	0.29
Avail Cap(c_a), veh/h	613
HCM Platoon Ratio	1.33
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	12.8
Incr Delay (d2), s/veh	1.2
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	1.8
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	13.9
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	239	69	90	349	189	96	1230	78	178	1399	155
Future Volume (veh/h)	114	239	69	90	349	189	96	1230	78	178	1399	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	114	239	69	90	349	189	96	1230	78	178	1399	155
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	146	627	177	137	419	354	140	1151	512	326	1522	673
Arrive On Green	0.08	0.23	0.23	0.08	0.22	0.22	0.08	0.32	0.32	0.24	0.56	0.56
Sat Flow, veh/h	1810	2777	783	1810	1900	1604	1810	3610	1605	1810	3610	1597
Grp Volume(v), veh/h	114	153	155	90	349	189	96	1230	78	178	1399	155
Grp Sat Flow(s),veh/h/ln	1810	1805	1755	1810	1900	1604	1810	1805	1605	1810	1805	1597
Q Serve(g_s), s	4.9	5.8	6.0	3.9	14.0	5.3	4.1	25.5	2.1	6.9	28.1	3.9
Cycle Q Clear(g_c), s	4.9	5.8	6.0	3.9	14.0	5.3	4.1	25.5	2.1	6.9	28.1	3.9
Prop In Lane	1.00		0.45	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	146	407	396	137	419	354	140	1151	512	326	1522	673
V/C Ratio(X)	0.78	0.38	0.39	0.66	0.83	0.53	0.69	1.07	0.15	0.55	0.92	0.23
Avail Cap(c_a), veh/h	192	519	505	192	546	461	158	1151	512	326	1522	673
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.32	0.32	0.32
Uniform Delay (d), s/veh	36.1	26.2	26.3	36.0	29.8	11.3	36.0	27.2	10.7	27.6	16.3	11.0
Incr Delay (d2), s/veh	14.0	0.6	0.6	5.3	8.3	1.3	10.1	47.0	0.6	0.6	3.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	2.5	2.5	1.9	7.1	3.1	2.2	17.9	1.1	2.8	9.4	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.1	26.8	26.9	41.2	38.1	12.6	46.1	74.3	11.4	28.2	20.2	11.3
LnGrp LOS	D	C	C	D	D	B	D	F	B	C	C	B
Approach Vol, veh/h		422			628			1404			1732	
Approach Delay, s/veh		33.1			30.8			68.9			20.3	
Approach LOS		C			C			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.4	29.5	10.1	22.1	10.2	37.7	10.4	21.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	25.5	8.5	23.0	7.0	25.5	8.5	23.0
Max Q Clear Time (g_c+I1), s	8.9	27.5	5.9	8.0	6.1	30.1	6.9	16.0
Green Ext Time (p_c), s	0.0	0.0	0.0	1.5	0.0	0.0	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	39.4
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	110	142	311	37	34	105
Future Vol, veh/h	110	142	311	37	34	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	110	142	311	37	34	105

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	348	0	-	0	692	330
Stage 1	-	-	-	-	330	-
Stage 2	-	-	-	-	362	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1222	-	-	-	413	716
Stage 1	-	-	-	-	733	-
Stage 2	-	-	-	-	709	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1222	-	-	-	373	716
Mov Cap-2 Maneuver	-	-	-	-	373	-
Stage 1	-	-	-	-	661	-
Stage 2	-	-	-	-	709	-

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	13.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1222	-	-	-	585
HCM Lane V/C Ratio	0.09	-	-	-	0.238
HCM Control Delay (s)	8.2	0	-	-	13.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.9

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	76	47	0	119	18	0
Future Vol, veh/h	76	47	0	119	18	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	76	47	0	119	18	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	123	0	219	100
Stage 1	-	-	-	-	100	-
Stage 2	-	-	-	-	119	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1477	-	774	961
Stage 1	-	-	-	-	929	-
Stage 2	-	-	-	-	911	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1477	-	774	961
Mov Cap-2 Maneuver	-	-	-	-	774	-
Stage 1	-	-	-	-	929	-
Stage 2	-	-	-	-	911	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	774	-	-	1477	-
HCM Lane V/C Ratio	0.023	-	-	-	-
HCM Control Delay (s)	9.8	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th Signalized Intersection Summary
1: Perris Boulevard & Eucalyptus Avenue

Perris/Dracaea Commercial Project
GPBO (2040) WP - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	155	516	275	88	301	140	44	157	1550	98	111	1495
Future Volume (veh/h)	155	516	275	88	301	140	44	157	1550	98	111	1495
Initial Q (Qb), veh	0	0	0	0	0	0		0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00		1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No				No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900		1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	155	516	275	88	301	140		157	1550	98	111	1495
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0		0	0	0	0	0
Cap, veh/h	186	475	402	116	401	340		163	1624	708	138	1574
Arrive On Green	0.10	0.25	0.25	0.06	0.21	0.21		0.03	0.15	0.15	0.08	0.44
Sat Flow, veh/h	1810	1900	1606	1810	1900	1610		1810	3610	1573	1810	3610
Grp Volume(v), veh/h	155	516	275	88	301	140		157	1550	98	111	1495
Grp Sat Flow(s),veh/h/ln	1810	1900	1606	1810	1900	1610		1810	1805	1573	1810	1805
Q Serve(g_s), s	8.4	25.0	15.5	4.8	14.9	6.0		8.7	42.6	4.0	6.0	39.9
Cycle Q Clear(g_c), s	8.4	25.0	15.5	4.8	14.9	6.0		8.7	42.6	4.0	6.0	39.9
Prop In Lane	1.00		1.00	1.00		1.00		1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	186	475	402	116	401	340		163	1625	708	138	1574
V/C Ratio(X)	0.83	1.09	0.68	0.76	0.75	0.41		0.96	0.95	0.14	0.81	0.95
Avail Cap(c_a), veh/h	199	475	402	127	401	340		163	1625	708	138	1574
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		0.33	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	37.5	33.9	46.1	37.0	21.9		48.4	41.6	14.0	45.5	27.1
Incr Delay (d2), s/veh	23.9	66.6	4.8	21.5	7.7	0.8		59.7	13.8	0.4	28.6	13.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	20.2	6.5	2.8	7.7	2.9		6.8	23.6	2.1	3.8	19.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.9	104.1	38.7	67.6	44.7	22.7		108.0	55.4	14.4	74.0	40.7
LnGrp LOS	E	F	D	E	D	C		F	E	B	E	D
Approach Vol, veh/h		946			529				1805			1706
Approach Delay, s/veh		79.2			42.7				57.7			41.5
Approach LOS		E			D				E			D

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.6	49.0	10.4	29.0	13.0	47.6	14.3	25.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	45.0	7.0	25.0	9.0	43.0	11.0	21.0
Max Q Clear Time (g_c+I1), s	8.0	44.6	6.8	27.0	10.7	41.9	10.4	16.9
Green Ext Time (p_c), s	0.0	0.4	0.0	0.0	0.0	1.0	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	54.6
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	100
Future Volume (veh/h)	100
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.97
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	100
Peak Hour Factor	1.00
Percent Heavy Veh, %	0
Cap, veh/h	683
Arrive On Green	0.44
Sat Flow, veh/h	1566
Grp Volume(v), veh/h	100
Grp Sat Flow(s),veh/h/ln	1566
Q Serve(g_s), s	3.8
Cycle Q Clear(g_c), s	3.8
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	683
V/C Ratio(X)	0.15
Avail Cap(c_a), veh/h	683
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	17.0
Incr Delay (d2), s/veh	0.5
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	1.4
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	17.4
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	83	0	0	112	79	1894	15	190	1804	22
Future Vol, veh/h	0	0	83	0	0	112	79	1894	15	190	1804	22
Conflicting Peds, #/hr	0	0	0	0	0	0	4	0	0	0	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	150	-	50	125	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	83	0	0	112	79	1894	15	190	1804	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	906	-	-	947	1830	0	0	1909	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.9	-	-	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.3	-	-	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	0	283	0	0	266	338	-	-	315	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	282	-	-	266	337	-	-	315	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23	28	0.8	3.1
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	337	-	-	282	266	315	-	-
HCM Lane V/C Ratio	0.234	-	-	0.294	0.421	0.603	-	-
HCM Control Delay (s)	18.9	-	-	23	28	32.4	-	-
HCM Lane LOS	C	-	-	C	D	D	-	-
HCM 95th %tile Q(veh)	0.9	-	-	1.2	2	3.7	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	39	0	1948	20	0	1887	2
Future Vol, veh/h	0	0	0	0	0	39	0	1948	20	0	1887	2
Conflicting Peds, #/hr	0	0	0	0	0	0	3	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	39	0	1948	20	0	1887	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	948	-	-	984	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.1	-	-	6.9	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.9	-	-	3.3	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*488	0	0	*263	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			1			1		-	-		-	-
Mov Cap-1 Maneuver	-	-	*487	-	-	*263	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	21.1	0	0
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	263	-	-
HCM Lane V/C Ratio	-	-	-	0.148	-	-
HCM Control Delay (s)	-	-	0	21.1	-	-
HCM Lane LOS	-	-	A	C	-	-
HCM 95th %tile Q(veh)	-	-	-	0.5	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th Signalized Intersection Summary
4: Perris Boulevard & Dracaea Avenue

Perris/Dracaea Commercial Project
GPBO (2040) WP - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	258	365	81	97	140	72	49	1611	85	27	84	1659
Future Volume (veh/h)	258	365	81	97	140	72	49	1611	85	27	84	1659
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900		1900	1900
Adj Flow Rate, veh/h	258	365	81	97	140	72	49	1611	85		84	1659
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		0	0
Cap, veh/h	182	186	499	47	59	18	127	1766	93		114	1805
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.07	0.51	0.51		0.13	1.00
Sat Flow, veh/h	424	601	1609	0	191	58	1810	3484	183		1810	3610
Grp Volume(v), veh/h	623	0	81	309	0	0	49	830	866		84	1659
Grp Sat Flow(s),veh/h/ln	1025	0	1609	249	0	0	1810	1805	1862		1810	1805
Q Serve(g_s), s	0.0	0.0	3.7	0.0	0.0	0.0	2.6	42.0	42.9		4.5	0.0
Cycle Q Clear(g_c), s	31.0	0.0	3.7	31.0	0.0	0.0	2.6	42.0	42.9		4.5	0.0
Prop In Lane	0.41		1.00	0.31		0.23	1.00		0.10		1.00	
Lane Grp Cap(c), veh/h	369	0	499	124	0	0	127	915	943		114	1805
V/C Ratio(X)	1.69	0.00	0.16	2.48	0.00	0.00	0.39	0.91	0.92		0.73	0.92
Avail Cap(c_a), veh/h	369	0	499	124	0	0	127	915	943		127	1805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.44	0.44	0.44		1.00	1.00
Uniform Delay (d), s/veh	36.6	0.0	25.1	32.1	0.0	0.0	44.4	22.5	22.7		42.9	0.0
Incr Delay (d2), s/veh	322.0	0.0	0.2	690.6	0.0	0.0	0.8	7.2	7.7		17.9	9.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	42.1	0.0	1.4	26.0	0.0	0.0	1.2	18.5	19.6		2.5	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	358.6	0.0	25.2	722.7	0.0	0.0	45.3	29.8	30.5		60.7	9.1
LnGrp LOS	F	A	C	F	A	A	D	C	C		E	A
Approach Vol, veh/h		704			309			1745				1860
Approach Delay, s/veh		320.3			722.7			30.6				10.9
Approach LOS		F			F			C				B

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.3	54.7		35.0	11.0	54.0		35.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	7.0	50.0		31.0	7.0	50.0		31.0				
Max Q Clear Time (g_c+I1), s	6.5	44.9		33.0	4.6	2.0		33.0				
Green Ext Time (p_c), s	0.0	4.2		0.0	0.0	22.1		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	113.1
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	117
Future Volume (veh/h)	117
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.97
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	117
Peak Hour Factor	1.00
Percent Heavy Veh, %	0
Cap, veh/h	784
Arrive On Green	1.00
Sat Flow, veh/h	1568
Grp Volume(v), veh/h	117
Grp Sat Flow(s),veh/h/ln	1568
Q Serve(g_s), s	0.0
Cycle Q Clear(g_c), s	0.0
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	784
V/C Ratio(X)	0.15
Avail Cap(c_a), veh/h	784
HCM Platoon Ratio	2.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	0.0
Incr Delay (d2), s/veh	0.4
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	0.1
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	0.4
LnGrp LOS	A
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	374	137	41	221	183	80	1418	43	175	1577	136
Future Volume (veh/h)	200	374	137	41	221	183	80	1418	43	175	1577	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	200	374	137	41	221	183	80	1418	43	175	1577	136
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	237	596	215	86	277	230	113	1264	549	385	1806	785
Arrive On Green	0.13	0.23	0.23	0.05	0.15	0.15	0.06	0.35	0.35	0.28	0.67	0.67
Sat Flow, veh/h	1810	2594	937	1810	1900	1572	1810	3610	1570	1810	3610	1568
Grp Volume(v), veh/h	200	259	252	41	221	183	80	1418	43	175	1577	136
Grp Sat Flow(s),veh/h/ln	1810	1805	1726	1810	1900	1572	1810	1805	1570	1810	1805	1568
Q Serve(g_s), s	10.8	12.9	13.2	2.2	11.2	7.4	4.3	35.0	1.5	8.0	34.9	3.3
Cycle Q Clear(g_c), s	10.8	12.9	13.2	2.2	11.2	7.4	4.3	35.0	1.5	8.0	34.9	3.3
Prop In Lane	1.00		0.54	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	237	414	396	86	277	230	113	1264	549	385	1806	785
V/C Ratio(X)	0.84	0.62	0.64	0.48	0.80	0.80	0.71	1.12	0.08	0.45	0.87	0.17
Avail Cap(c_a), veh/h	407	433	414	308	352	291	127	1264	549	385	1806	785
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.42	0.42	0.42
Uniform Delay (d), s/veh	42.4	34.6	34.8	46.4	41.3	17.8	46.0	32.5	14.0	31.1	14.2	8.9
Incr Delay (d2), s/veh	7.9	2.6	3.0	4.0	9.6	11.5	14.7	65.9	0.3	0.4	2.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	5.9	5.8	1.1	5.9	3.4	2.4	26.3	0.7	3.4	10.9	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.3	37.2	37.8	50.4	50.9	29.3	60.7	98.4	14.3	31.4	16.9	9.1
LnGrp LOS	D	D	D	D	D	C	E	F	B	C	B	A
Approach Vol, veh/h		711			445			1541			1888	
Approach Delay, s/veh		41.1			42.0			94.1			17.7	
Approach LOS		D			D			F			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.3	39.0	8.8	27.0	10.2	54.0	17.1	18.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.3	35.0	17.0	24.0	7.0	36.0	22.5	18.5
Max Q Clear Time (g_c+I1), s	10.0	37.0	4.2	15.2	6.3	36.9	12.8	13.2
Green Ext Time (p_c), s	0.0	0.0	0.0	2.1	0.0	0.0	0.4	0.9

Intersection Summary	
HCM 6th Ctrl Delay	49.4
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	71	463	235	24	24	75
Future Vol, veh/h	71	463	235	24	24	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	71	463	235	24	24	75

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	259	0	-	0	852	247
Stage 1	-	-	-	-	247	-
Stage 2	-	-	-	-	605	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1317	-	-	-	333	797
Stage 1	-	-	-	-	799	-
Stage 2	-	-	-	-	549	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1317	-	-	-	309	797
Mov Cap-2 Maneuver	-	-	-	-	309	-
Stage 1	-	-	-	-	741	-
Stage 2	-	-	-	-	549	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1317	-	-	-	576
HCM Lane V/C Ratio	0.054	-	-	-	0.172
HCM Control Delay (s)	7.9	0	-	-	12.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	165	39	0	101	11	0
Future Vol, veh/h	165	39	0	101	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	165	39	0	101	11	0

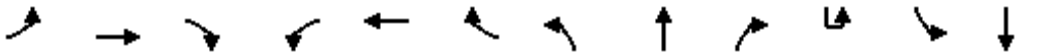
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	204	0	286	185
Stage 1	-	-	-	-	185	-
Stage 2	-	-	-	-	101	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1380	-	709	862
Stage 1	-	-	-	-	852	-
Stage 2	-	-	-	-	928	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1380	-	709	862
Mov Cap-2 Maneuver	-	-	-	-	709	-
Stage 1	-	-	-	-	852	-
Stage 2	-	-	-	-	928	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	709	-	-	1380	-
HCM Lane V/C Ratio	0.016	-	-	-	-
HCM Control Delay (s)	10.2	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th Signalized Intersection Summary
4: Perris Boulevard & Dracaea Avenue

Perris/Dracaea Commercial Project
GPBO (2040) WP MIT- AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	92	113	59	144	181	91	74	1342	73	16	67	1508
Future Volume (veh/h)	92	113	59	144	181	91	74	1342	73	16	67	1508
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900		1900	1900
Adj Flow Rate, veh/h	92	113	59	144	181	91	74	1342	73		67	1508
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		0	0
Cap, veh/h	215	290	151	294	293	147	300	1522	83		300	1579
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.22	0.58	0.58		0.22	0.58
Sat Flow, veh/h	1124	1173	613	1228	1186	596	1810	3480	189		1810	3610
Grp Volume(v), veh/h	92	0	172	144	0	272	74	695	720		67	1508
Grp Sat Flow(s),veh/h/ln	1124	0	1786	1228	0	1782	1810	1805	1863		1810	1805
Q Serve(g_s), s	6.3	0.0	6.4	8.9	0.0	10.9	2.7	26.4	26.6		2.4	31.4
Cycle Q Clear(g_c), s	17.2	0.0	6.4	15.3	0.0	10.9	2.7	26.4	26.6		2.4	31.4
Prop In Lane	1.00		0.34	1.00		0.33	1.00		0.10		1.00	
Lane Grp Cap(c), veh/h	215	0	441	294	0	440	300	790	815		300	1579
V/C Ratio(X)	0.43	0.00	0.39	0.49	0.00	0.62	0.25	0.88	0.88		0.22	0.95
Avail Cap(c_a), veh/h	275	0	536	360	0	535	300	790	815		300	1579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33		1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.53	0.53	0.53		1.00	1.00
Uniform Delay (d), s/veh	34.4	0.0	25.1	31.5	0.0	26.8	27.1	14.9	15.0		27.0	16.0
Incr Delay (d2), s/veh	1.3	0.0	0.6	1.3	0.0	1.5	0.2	7.7	7.7		0.4	14.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	2.7	2.7	0.0	4.6	1.1	9.4	9.8		1.0	12.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.8	0.0	25.7	32.7	0.0	28.3	27.3	22.7	22.7		27.3	30.2
LnGrp LOS	D	A	C	C	A	C	C	C	C		C	C
Approach Vol, veh/h		264			416			1489				1750
Approach Delay, s/veh		29.2			29.8			22.9				28.2
Approach LOS		C			C			C				C

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.3	39.0		23.7	17.3	39.0		23.7				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	9.0	35.0		24.0	9.0	35.0		24.0				
Max Q Clear Time (g_c+I1), s	4.4	28.6		19.2	4.7	33.4		17.3				
Green Ext Time (p_c), s	0.0	4.5		0.5	0.0	1.3		1.2				

Intersection Summary			
HCM 6th Ctrl Delay		26.4	
HCM 6th LOS		C	

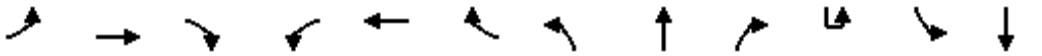
Notes

User approved ignoring U-Turning movement.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	175
Future Volume (veh/h)	175
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.97
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	175
Peak Hour Factor	1.00
Percent Heavy Veh, %	0
Cap, veh/h	682
Arrive On Green	0.58
Sat Flow, veh/h	1559
Grp Volume(v), veh/h	175
Grp Sat Flow(s),veh/h/ln	1559
Q Serve(g_s), s	4.4
Cycle Q Clear(g_c), s	4.4
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	682
V/C Ratio(X)	0.26
Avail Cap(c_a), veh/h	682
HCM Platoon Ratio	1.33
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	10.3
Incr Delay (d2), s/veh	0.9
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	1.5
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	11.2
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

HCM 6th Signalized Intersection Summary
4: Perris Boulevard & Dracaea Avenue

Perris/Dracaea Commercial Project
GPBO (2040) WP MIT- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	258	365	81	97	140	72	49	1611	85	27	84	1659
Future Volume (veh/h)	258	365	81	97	140	72	49	1611	85	27	84	1659
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900		1900	1900
Adj Flow Rate, veh/h	258	365	81	97	140	72	49	1611	85		84	1659
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		0	0
Cap, veh/h	294	428	95	124	336	173	124	1867	98		113	1911
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.07	0.54	0.54		0.06	0.53
Sat Flow, veh/h	1188	1505	334	959	1182	608	1810	3484	183		1810	3610
Grp Volume(v), veh/h	258	0	446	97	0	212	49	830	866		84	1659
Grp Sat Flow(s),veh/h/ln	1188	0	1839	959	0	1790	1810	1805	1862		1810	1805
Q Serve(g_s), s	19.2	0.0	23.4	5.6	0.0	9.8	2.6	40.3	41.2		4.7	40.8
Cycle Q Clear(g_c), s	29.0	0.0	23.4	29.0	0.0	9.8	2.6	40.3	41.2		4.7	40.8
Prop In Lane	1.00		0.18	1.00		0.34	1.00		0.10		1.00	
Lane Grp Cap(c), veh/h	294	0	523	124	0	509	124	967	997		113	1911
V/C Ratio(X)	0.88	0.00	0.85	0.79	0.00	0.42	0.39	0.86	0.87		0.75	0.87
Avail Cap(c_a), veh/h	294	0	523	124	0	509	124	967	997		124	1911
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.44	0.44	0.44		1.00	1.00
Uniform Delay (d), s/veh	42.7	0.0	34.5	49.5	0.0	29.6	45.5	20.4	20.5		47.0	20.9
Incr Delay (d2), s/veh	24.5	0.0	12.8	27.5	0.0	0.5	0.9	4.6	4.8		19.7	5.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	0.0	12.1	3.4	0.0	4.3	1.2	17.0	18.0		2.7	17.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.2	0.0	47.3	76.9	0.0	30.2	46.4	25.0	25.4		66.7	26.6
LnGrp LOS	E	A	D	E	A	C	D	C	C		E	C
Approach Vol, veh/h		704			309			1745				1860
Approach Delay, s/veh		54.6			44.9			25.8				27.5
Approach LOS		D			D			C				C

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.4	58.6		33.0	11.0	58.0		33.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	7.0	54.0		29.0	7.0	54.0		29.0				
Max Q Clear Time (g_c+I1), s	6.7	43.2		31.0	4.6	42.8		31.0				
Green Ext Time (p_c), s	0.0	8.1		0.0	0.0	8.5		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			32.1									
HCM 6th LOS			C									

Notes

User approved ignoring U-Turning movement.

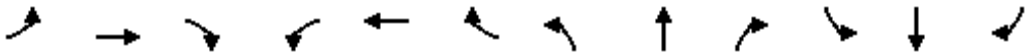
Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	117
Future Volume (veh/h)	117
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.97
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	117
Peak Hour Factor	1.00
Percent Heavy Veh, %	0
Cap, veh/h	830
Arrive On Green	0.53
Sat Flow, veh/h	1569
Grp Volume(v), veh/h	117
Grp Sat Flow(s),veh/h/ln	1569
Q Serve(g_s), s	3.9
Cycle Q Clear(g_c), s	3.9
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	830
V/C Ratio(X)	0.14
Avail Cap(c_a), veh/h	830
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	12.2
Incr Delay (d2), s/veh	0.4
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(50%),veh/ln	1.4
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	12.6
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

APPENDIX E:

QUEUING WORKSHEETS

Queues
1: Perris Boulevard & Eucalyptus Avenue

Perris/Dracaea Commercial Project
Existing NP - AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	25	84	64	95	249	223	57	1152	67	83	1156	37
v/c Ratio	0.16	0.36	0.18	0.39	0.59	0.42	0.35	0.62	0.08	0.53	0.60	0.04
Control Delay	36.4	36.7	1.1	35.5	33.4	6.6	30.3	17.3	0.8	48.0	17.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.4	36.7	1.1	35.5	33.4	6.6	30.3	17.3	0.8	48.0	17.6	0.1
Queue Length 50th (ft)	12	40	0	45	102	0	19	314	0	41	227	0
Queue Length 95th (ft)	34	76	0	83	176	48	m41	386	m3	#83	327	0
Internal Link Dist (ft)		465			496			595			643	
Turn Bay Length (ft)	50		50	100			95		95	250		100
Base Capacity (vph)	157	439	503	242	465	559	161	1844	888	157	1936	927
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.19	0.13	0.39	0.54	0.40	0.35	0.62	0.08	0.53	0.60	0.04

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Queuing and Blocking Report

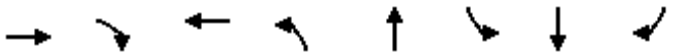
Intersection: 2: Perris Boulevard & Atwood Avenue

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	69	44	47	31
Average Queue (ft)	27	12	23	10
95th Queue (ft)	58	35	47	33
Link Distance (ft)	424	42		
Upstream Blk Time (%)		4		
Queuing Penalty (veh)		1		
Storage Bay Dist (ft)			50	50
Storage Blk Time (%)			0	0
Queuing Penalty (veh)			1	0

Queuing and Blocking Report

Intersection: 3: Perris Boulevard & Auto Center Driveway

Movement	EB	SB	SB	SB
Directions Served	LR	T	T	TR
Maximum Queue (ft)	30	29	78	75
Average Queue (ft)	3	1	5	3
95th Queue (ft)	17	11	33	29
Link Distance (ft)	134	400	400	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				25
Storage Blk Time (%)			0	
Queuing Penalty (veh)			2	



Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	161	62	277	60	1222	39	1237	102
v/c Ratio	0.57	0.15	0.78	0.33	0.59	0.21	0.59	0.11
Control Delay	34.5	6.1	41.1	41.4	12.3	28.5	5.7	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.5	6.1	41.1	41.4	12.3	28.5	5.7	0.4
Queue Length 50th (ft)	72	0	118	32	298	21	57	0
Queue Length 95th (ft)	108	20	164	m48	377	m37	86	m0
Internal Link Dist (ft)	143		198		1242		119	
Turn Bay Length (ft)		50		100		95		
Base Capacity (vph)	397	554	488	212	2075	212	2081	934
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.11	0.57	0.28	0.59	0.18	0.59	0.11

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	105	335	73	333	192	71	1048	59	158	1120	131
v/c Ratio	0.67	0.43	0.46	0.82	0.39	0.40	0.66	0.08	1.01	0.68	0.17
Control Delay	57.8	25.9	45.0	47.4	6.8	40.6	21.5	0.3	106.5	20.4	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.8	25.9	45.0	47.4	6.8	40.6	21.5	0.3	106.5	20.4	3.9
Queue Length 50th (ft)	52	66	35	156	0	34	229	0	~88	324	21
Queue Length 95th (ft)	#108	94	70	#225	39	67	267	0	#188	360	30
Internal Link Dist (ft)		169		578			419			1242	
Turn Bay Length (ft)	115		100		355	95		175	95		200
Base Capacity (vph)	157	834	157	439	515	191	1582	760	157	1639	779
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.40	0.46	0.76	0.37	0.37	0.66	0.08	1.01	0.68	0.17

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

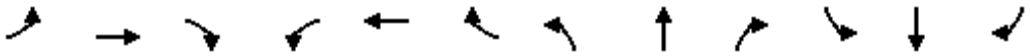
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queuing and Blocking Report

Intersection: 7: Sunset Lane & Atwood Avenue

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	31	32
Average Queue (ft)	3	3
95th Queue (ft)	17	17
Link Distance (ft)	409	273
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queues
1: Perris Boulevard & Eucalyptus Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	54	199	83	55	134	114	54	1029	62	102	1119	47
v/c Ratio	0.35	0.67	0.22	0.44	0.50	0.33	0.34	0.50	0.07	0.81	0.54	0.05
Control Delay	48.8	50.2	2.2	55.9	45.9	6.2	33.7	22.5	4.5	88.7	17.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.8	50.2	2.2	55.9	45.9	6.2	33.7	22.5	4.5	88.7	17.4	0.2
Queue Length 50th (ft)	33	121	0	34	80	0	34	333	6	65	243	0
Queue Length 95th (ft)	70	183	7	74	135	30	60	412	23	#159	371	2
Internal Link Dist (ft)		465			496			595			643	
Turn Bay Length (ft)	50		50	100			95		95	250		100
Base Capacity (vph)	198	475	504	126	399	451	173	2039	931	126	2057	928
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.42	0.16	0.44	0.34	0.25	0.31	0.50	0.07	0.81	0.54	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queuing and Blocking Report

Intersection: 2: Perris Boulevard & Atwood Avenue

Movement	EB	WB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	L	T	R
Maximum Queue (ft)	108	44	53	59	94	21
Average Queue (ft)	40	13	24	21	4	1
95th Queue (ft)	85	34	53	50	36	8
Link Distance (ft)	424	32			599	
Upstream Blk Time (%)		1				
Queuing Penalty (veh)		0				
Storage Bay Dist (ft)			50	50		50
Storage Blk Time (%)				2		
Queuing Penalty (veh)				10		

Queuing and Blocking Report

Intersection: 3: Perris Boulevard & Auto Center Driveway

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	53	95
Average Queue (ft)	4	6
95th Queue (ft)	24	40
Link Distance (ft)	400	400
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		1
Queuing Penalty (veh)		4

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	178	23	158	30	1067	49	1079	71
v/c Ratio	0.83	0.07	0.61	0.24	0.46	0.32	0.43	0.06
Control Delay	69.6	0.4	42.1	34.4	5.4	54.6	7.1	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.6	0.4	42.1	34.4	5.4	54.6	7.1	2.8
Queue Length 50th (ft)	111	0	80	18	82	34	93	1
Queue Length 95th (ft)	175	0	137	m37	100	m63	168	m16
Internal Link Dist (ft)	143		198		1242		119	
Turn Bay Length (ft)		50		100		95		
Base Capacity (vph)	401	561	467	126	2341	153	2485	1097
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.04	0.34	0.24	0.46	0.32	0.43	0.06

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	94	278	23	137	89	65	950	32	100	984	85
v/c Ratio	0.49	0.38	0.17	0.58	0.25	0.39	0.48	0.03	0.69	0.49	0.09
Control Delay	50.2	28.5	46.2	50.3	1.6	49.1	16.5	0.1	74.2	23.5	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.2	28.5	46.2	50.3	1.6	49.1	16.5	0.1	74.2	23.5	6.0
Queue Length 50th (ft)	58	58	14	84	0	40	193	0	51	171	4
Queue Length 95th (ft)	104	100	39	139	0	80	298	0	#145	407	32
Internal Link Dist (ft)		169		578			419			1242	
Turn Bay Length (ft)	115		100		355	95		175	95		200
Base Capacity (vph)	406	886	306	351	443	166	1985	926	144	2021	937
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.31	0.08	0.39	0.20	0.39	0.48	0.03	0.69	0.49	0.09

Intersection Summary

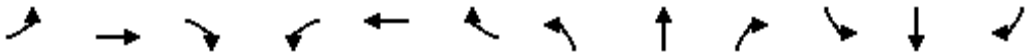
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queuing and Blocking Report

Intersection: 7: Sunset Lane & Atwood Avenue

Movement	NB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	1
95th Queue (ft)	12
Link Distance (ft)	199
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queues
1: Perris Boulevard & Eucalyptus Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	28	89	69	101	264	237	61	1353	70	87	1280	39
v/c Ratio	0.18	0.37	0.19	0.42	0.61	0.43	0.38	0.74	0.08	0.55	0.67	0.04
Control Delay	36.8	36.7	1.2	36.2	34.0	6.5	33.6	20.0	0.6	49.5	19.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.8	36.7	1.2	36.2	34.0	6.5	33.6	20.0	0.6	49.5	19.5	0.1
Queue Length 50th (ft)	13	42	0	47	108	0	22	391	0	43	270	0
Queue Length 95th (ft)	36	79	0	87	186	49	m37	#478	m2	#91	#395	0
Internal Link Dist (ft)		465			496			595			643	
Turn Bay Length (ft)	50		50	100			95		95	250		100
Base Capacity (vph)	157	439	503	243	470	572	162	1832	883	157	1921	921
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.20	0.14	0.42	0.56	0.41	0.38	0.74	0.08	0.55	0.67	0.04

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Queuing and Blocking Report

Intersection: 2: Perris Boulevard & Atwood Avenue

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	L	L	T
Maximum Queue (ft)	44	44	52	31	73
Average Queue (ft)	19	13	25	6	3
95th Queue (ft)	41	35	49	25	28
Link Distance (ft)	424	42			599
Upstream Blk Time (%)		1			
Queuing Penalty (veh)		0			
Storage Bay Dist (ft)			50	50	
Storage Blk Time (%)			0	0	0
Queuing Penalty (veh)			3	0	0

Queuing and Blocking Report

Intersection: 3: Perris Boulevard & Auto Center Driveway

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	91	116
Average Queue (ft)	10	10
95th Queue (ft)	50	52
Link Distance (ft)	400	400
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		1
Queuing Penalty (veh)		4

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	171	65	294	63	1429	42	1370	108
v/c Ratio	0.60	0.15	0.82	0.34	0.70	0.23	0.70	0.12
Control Delay	35.0	6.2	43.9	50.7	22.4	27.9	9.1	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.0	6.2	43.9	50.7	22.4	27.9	9.1	0.5
Queue Length 50th (ft)	76	0	127	34	375	22	63	1
Queue Length 95th (ft)	114	21	176	m45	#457	m36	#96	m1
Internal Link Dist (ft)	143		198		1242		119	
Turn Bay Length (ft)		50		100		95		
Base Capacity (vph)	387	554	476	212	2038	212	1945	882
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.12	0.62	0.30	0.70	0.20	0.70	0.12

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	111	355	78	353	204	76	1247	63	167	1248	140
v/c Ratio	0.58	0.41	0.42	0.78	0.38	0.46	0.87	0.09	1.06	0.83	0.19
Control Delay	46.5	23.7	40.6	41.0	5.9	44.1	33.9	0.7	109.0	18.9	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.5	23.7	40.6	41.0	5.9	44.1	33.9	0.7	109.0	18.9	1.3
Queue Length 50th (ft)	53	68	37	161	0	36	~328	0	~93	~371	0
Queue Length 95th (ft)	95	93	71	222	37	72	#429	1	m#165	#410	m0
Internal Link Dist (ft)		169		578			419			1242	
Turn Bay Length (ft)	115		100		355	95		175	95		200
Base Capacity (vph)	203	986	203	522	584	165	1428	698	157	1511	726
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.36	0.38	0.68	0.35	0.46	0.87	0.09	1.06	0.83	0.19

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

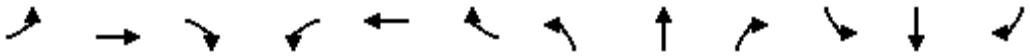
Queuing and Blocking Report

Intersection: 7: Sunset Lane & Atwood Avenue

Movement	NB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	3
95th Queue (ft)	17
Link Distance (ft)	273
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queues
1: Perris Boulevard & Eucalyptus Avenue

Perris/Dracaea Commercial Project
Project Completion (2022) NP - PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	57	211	88	58	142	120	58	1182	66	108	1316	52
v/c Ratio	0.37	0.67	0.23	0.46	0.51	0.33	0.37	0.59	0.07	0.86	0.65	0.06
Control Delay	49.2	49.4	2.6	57.0	45.1	6.8	32.6	24.7	4.5	96.7	20.2	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.2	49.4	2.6	57.0	45.1	6.8	32.6	24.7	4.5	96.7	20.2	0.7
Queue Length 50th (ft)	35	128	0	36	84	0	35	392	7	69	318	0
Queue Length 95th (ft)	73	189	11	78	139	34	m57	485	m23	#169	482	5
Internal Link Dist (ft)		465			496			595			643	
Turn Bay Length (ft)	50		50	100			95		95	250		100
Base Capacity (vph)	198	475	504	126	399	451	173	2009	919	126	2025	915
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.44	0.17	0.46	0.36	0.27	0.34	0.59	0.07	0.86	0.65	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Queuing and Blocking Report

Intersection: 2: Perris Boulevard & Atwood Avenue

Movement	EB	WB	NB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	T	T	L	T
Maximum Queue (ft)	63	42	58	84	21	52	40
Average Queue (ft)	28	11	21	4	1	23	2
95th Queue (ft)	54	35	50	33	8	51	15
Link Distance (ft)	424	32		400	400		599
Upstream Blk Time (%)		2					
Queuing Penalty (veh)		0					
Storage Bay Dist (ft)			50			50	
Storage Blk Time (%)			2			1	0
Queuing Penalty (veh)			11			6	0

Queuing and Blocking Report

Intersection: 3: Perris Boulevard & Auto Center Driveway

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	94	97
Average Queue (ft)	6	11
95th Queue (ft)	39	51
Link Distance (ft)	400	400
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		2
Queuing Penalty (veh)		9

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	190	24	167	32	1221	52	1270	76
v/c Ratio	0.85	0.07	0.62	0.25	0.53	0.34	0.52	0.07
Control Delay	70.1	0.3	41.9	34.4	6.3	53.4	9.1	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.1	0.3	41.9	34.4	6.3	53.4	9.1	4.3
Queue Length 50th (ft)	119	0	85	20	92	36	108	1
Queue Length 95th (ft)	184	0	143	m32	130	m57	246	m17
Internal Link Dist (ft)	143		198		1242		119	
Turn Bay Length (ft)		50		100		95		
Base Capacity (vph)	398	561	459	126	2304	155	2452	1085
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.04	0.36	0.25	0.53	0.34	0.52	0.07

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	100	295	24	145	94	69	1096	34	106	1166	90
v/c Ratio	0.51	0.39	0.18	0.59	0.26	0.40	0.56	0.04	0.74	0.59	0.10
Control Delay	50.3	28.5	46.2	50.3	1.7	49.1	18.3	0.1	77.1	25.8	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.3	28.5	46.2	50.3	1.7	49.1	18.3	0.1	77.1	25.8	5.4
Queue Length 50th (ft)	61	63	15	88	0	42	240	0	59	230	7
Queue Length 95th (ft)	109	105	40	144	0	83	367	0	#159	490	28
Internal Link Dist (ft)		169		578			419			1242	
Turn Bay Length (ft)	115		100		355	95		175	95		200
Base Capacity (vph)	406	892	306	351	443	171	1959	916	144	1985	923
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.33	0.08	0.41	0.21	0.40	0.56	0.04	0.74	0.59	0.10

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

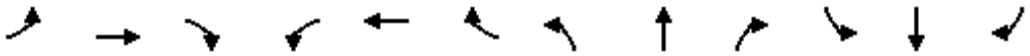
Queuing and Blocking Report

Intersection: 7: Sunset Lane & Atwood Avenue

Movement	NB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	3
95th Queue (ft)	17
Link Distance (ft)	199
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queues
1: Perris Boulevard & Eucalyptus Avenue

Perris/Dracaea Commercial Project
Project Completion (2022) WP - AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	31	89	89	121	264	237	85	1359	89	87	1290	39
v/c Ratio	0.20	0.40	0.26	0.45	0.59	0.43	no cap	0.75	0.10	0.55	0.91	0.05
Control Delay	37.2	37.6	1.9	36.2	33.1	6.4		14.8	0.8	49.5	33.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	37.2	37.6	1.9	36.2	33.1	6.4	Error	14.8	0.8	49.5	33.9	0.1
Queue Length 50th (ft)	15	42	0	56	105	0	~89	330	0	43	312	0
Queue Length 95th (ft)	39	79	0	101	186	49	m#103	m#414	m2	#91	#420	0
Internal Link Dist (ft)		465			496			595			643	
Turn Bay Length (ft)	50		50	100			95		95	250		100
Base Capacity (vph)	157	439	503	271	483	581	1	1807	874	157	1421	727
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.20	0.18	0.45	0.55	0.41	85.00	0.75	0.10	0.55	0.91	0.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queuing and Blocking Report

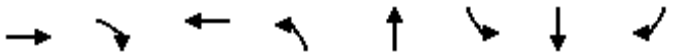
Intersection: 2: Perris Boulevard & Atwood Avenue

Movement	EB	WB	NB	SB	SB	SB
Directions Served	R	R	L	L	T	T
Maximum Queue (ft)	64	44	53	69	31	95
Average Queue (ft)	27	18	22	21	1	7
95th Queue (ft)	55	39	52	46	12	47
Link Distance (ft)	424	42			599	599
Upstream Blk Time (%)		2				
Queuing Penalty (veh)		1				
Storage Bay Dist (ft)			150	125		
Storage Blk Time (%)						0
Queuing Penalty (veh)						0

Queuing and Blocking Report

Intersection: 3: Perris Boulevard & Auto Center Driveway/Project Driveway 1

Movement	EB	WB	SB	SB	SB
Directions Served	R	R	T	T	TR
Maximum Queue (ft)	28	54	73	76	70
Average Queue (ft)	3	27	5	8	3
95th Queue (ft)	17	45	31	43	27
Link Distance (ft)	135	110	405	405	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					25
Storage Blk Time (%)				2	
Queuing Penalty (veh)				8	



Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	212	64	415	62	1490	85	1348	106
v/c Ratio	0.45	0.11	0.94	0.32	0.97	0.44	0.87	0.15
Control Delay	25.0	5.6	57.7	39.0	32.5	30.3	13.4	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.0	5.6	57.7	39.0	32.5	30.3	13.4	0.6
Queue Length 50th (ft)	84	0	197	33	~414	45	76	1
Queue Length 95th (ft)	136	21	#345	m40	#490	m59	102	m0
Internal Link Dist (ft)	143		198		1242		119	
Turn Bay Length (ft)		50		100		100		
Base Capacity (vph)	474	586	443	212	1540	212	1551	725
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.11	0.94	0.29	0.97	0.40	0.87	0.15

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	131	355	78	353	224	76	1267	63	187	1267	159
v/c Ratio	0.83	0.40	0.50	0.85	0.43	0.42	0.86	0.09	1.19	0.83	0.21
Control Delay	77.3	24.8	46.3	50.3	7.2	41.4	30.0	0.6	147.0	20.7	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.3	24.8	46.3	50.3	7.2	41.4	30.0	0.6	147.0	20.7	2.9
Queue Length 50th (ft)	66	71	38	167	2	36	303	0	~120	367	17
Queue Length 95th (ft)	#142	100	73	#259	43	71	346	1	m#154	m#407	m19
Internal Link Dist (ft)		169		578			419			1242	
Turn Bay Length (ft)	115		100		355	95		175	95		200
Base Capacity (vph)	157	891	157	439	535	191	1466	713	157	1521	745
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.40	0.50	0.80	0.42	0.40	0.86	0.09	1.19	0.83	0.21

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queuing and Blocking Report

Intersection: 6: Dracaea Avenue & Project Driveway 2

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	55	99	77
Average Queue (ft)	23	12	47
95th Queue (ft)	60	58	71
Link Distance (ft)	210	274	106
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

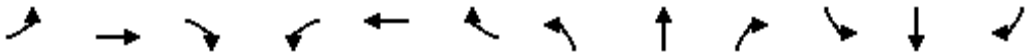
Queuing and Blocking Report

Intersection: 7: Sunset Lane & Atwood Avenue

Movement	NB
Directions Served	LR
Maximum Queue (ft)	32
Average Queue (ft)	14
95th Queue (ft)	39
Link Distance (ft)	273
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queues
1: Perris Boulevard & Eucalyptus Avenue

Perris/Dracaea Commercial Project
Project Completion (2022) WP - PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	63	211	99	68	142	120	72	1181	77	108	1321	52
v/c Ratio	0.39	0.67	0.26	0.54	0.51	0.34	no cap	0.59	0.08	0.86	0.85	0.07
Control Delay	49.8	49.4	3.7	61.4	45.5	6.9		23.9	5.4	96.7	32.2	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	49.8	49.4	3.7	61.4	45.5	6.9	Error	23.9	5.4	96.7	32.2	0.8
Queue Length 50th (ft)	39	128	0	43	85	0	~99	378	10	69	388	0
Queue Length 95th (ft)	79	189	18	#95	139	34	m#163	475	m24	#169	484	5
Internal Link Dist (ft)		465			496			595			643	
Turn Bay Length (ft)	50		50	100			95		95	250		100
Base Capacity (vph)	198	475	504	126	399	451	1	2009	919	126	1552	724
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.44	0.20	0.54	0.36	0.27	72.00	0.59	0.08	0.86	0.85	0.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queuing and Blocking Report

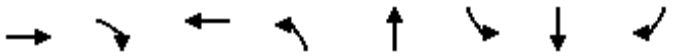
Intersection: 2: Perris Boulevard & Atwood Avenue

Movement	EB	WB	NB	SB
Directions Served	R	R	L	L
Maximum Queue (ft)	66	44	51	74
Average Queue (ft)	22	12	24	32
95th Queue (ft)	51	33	47	69
Link Distance (ft)	424	32		
Upstream Blk Time (%)		2		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)			150	125
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report

Intersection: 3: Perris Boulevard & Auto Center Driveway/Project Driveway 1

Movement	WB	NB	SB	SB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	54	40	182	180	71
Average Queue (ft)	25	2	42	46	6
95th Queue (ft)	49	15	129	131	40
Link Distance (ft)	110	141	405	405	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					25
Storage Blk Time (%)				14	
Queuing Penalty (veh)				64	



Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	211	24	241	31	1254	92	1249	75
v/c Ratio	0.71	0.06	0.97	0.25	0.62	0.53	0.54	0.07
Control Delay	48.8	0.3	85.0	34.6	8.5	57.2	12.9	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.8	0.3	85.0	34.6	8.5	57.2	12.9	6.3
Queue Length 50th (ft)	125	0	145	19	99	63	169	2
Queue Length 95th (ft)	185	0	#241	m29	148	m81	251	m12
Internal Link Dist (ft)	143		198		1242		119	
Turn Bay Length (ft)		50		100		100		
Base Capacity (vph)	425	561	352	126	2031	174	2303	1023
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.04	0.68	0.25	0.62	0.53	0.54	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	110	295	24	145	104	69	1106	34	116	1177	100
v/c Ratio	0.54	0.35	0.18	0.59	0.29	0.40	0.59	0.04	0.81	0.62	0.11
Control Delay	50.7	27.1	46.2	50.6	2.0	49.1	19.7	0.1	88.5	30.0	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.7	27.1	46.2	50.6	2.0	49.1	19.7	0.1	88.5	30.0	5.8
Queue Length 50th (ft)	67	62	15	88	0	42	246	0	80	267	11
Queue Length 95th (ft)	117	104	40	144	0	83	377	0	m#173	451	m28
Internal Link Dist (ft)		169		578			419			1242	
Turn Bay Length (ft)	115		100		355	95		175	95		200
Base Capacity (vph)	406	902	306	351	443	171	1867	879	144	1893	887
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.33	0.08	0.41	0.23	0.40	0.59	0.04	0.81	0.62	0.11

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Queuing and Blocking Report

Intersection: 6: Dracaea Avenue & Project Driveway 2

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	76	55
Average Queue (ft)	17	33
95th Queue (ft)	52	52
Link Distance (ft)	210	106
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

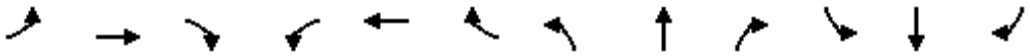
Queuing and Blocking Report

Intersection: 7: Sunset Lane & Atwood Avenue

Movement	NB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	16
95th Queue (ft)	40
Link Distance (ft)	199
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queues
1: Perris Boulevard & Eucalyptus Avenue

Perris/Dracaea Commercial Project
GPBO (2040) NP - AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	58	170	150	92	401	216	129	1274	65	90	1438	92
v/c Ratio	0.37	0.49	0.35	0.43	0.88	0.40	0.73	0.75	0.08	0.57	0.93	0.12
Control Delay	41.6	34.9	5.4	39.6	53.1	6.4	48.4	21.5	0.6	50.8	35.3	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.6	34.9	5.4	39.6	53.1	6.4	48.4	21.5	0.6	50.8	35.3	0.3
Queue Length 50th (ft)	28	80	0	41	196	0	54	370	0	44	~378	0
Queue Length 95th (ft)	64	130	33	#93	#360	52	m#118	#461	m1	#103	#533	0
Internal Link Dist (ft)		465			496			595			643	
Turn Bay Length (ft)	50		50	100			95		95	250		100
Base Capacity (vph)	157	439	503	212	458	548	177	1691	829	157	1551	778
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.39	0.30	0.43	0.88	0.39	0.73	0.75	0.08	0.57	0.93	0.12

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

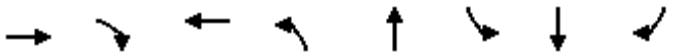
m Volume for 95th percentile queue is metered by upstream signal.

Intersection: 2: Perris Boulevard & Atwood Avenue

Movement	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	L	T	T	R
Maximum Queue (ft)	432	45	82	115	70	100	604	618	100
Average Queue (ft)	169	43	44	8	3	39	200	204	9
95th Queue (ft)	424	45	80	50	27	84	599	608	56
Link Distance (ft)	424	42		400	400		599	599	
Upstream Blk Time (%)	18	75					1	2	
Queuing Penalty (veh)	0	91					5	13	
Storage Bay Dist (ft)			50			50			50
Storage Blk Time (%)			10	0	0	6	21	23	
Queuing Penalty (veh)			75	0	0	49	12	4	

Intersection: 3: Perris Boulevard & Auto Center Driveway

Movement	EB	SB	SB	SB
Directions Served	LR	T	T	TR
Maximum Queue (ft)	30	420	406	75
Average Queue (ft)	10	271	286	38
95th Queue (ft)	27	490	493	95
Link Distance (ft)	134	400	400	
Upstream Blk Time (%)		13	14	
Queuing Penalty (veh)		111	119	
Storage Bay Dist (ft)				25
Storage Blk Time (%)			49	
Queuing Penalty (veh)			287	



Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	171	60	315	75	1364	43	1527	177
v/c Ratio	0.66	0.14	0.80	0.40	0.68	0.23	0.80	0.20
Control Delay	38.9	5.6	40.4	42.9	14.8	24.8	10.8	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.9	5.6	40.4	42.9	14.8	24.8	10.8	0.5
Queue Length 50th (ft)	77	0	135	41	362	22	91	1
Queue Length 95th (ft)	130	22	206	m54	#479	m29	m#491	m0
Internal Link Dist (ft)	143		198		1242		119	
Turn Bay Length (ft)		50		100		95		
Base Capacity (vph)	342	554	514	212	2012	212	1913	902
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.11	0.61	0.35	0.68	0.20	0.80	0.20

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	97	308	90	349	172	96	1213	78	162	1383	139
v/c Ratio	0.62	0.35	0.57	0.76	0.33	0.55	0.82	0.11	1.03	0.89	0.19
Control Delay	53.8	21.5	50.8	38.9	5.5	48.2	29.6	1.7	99.1	25.8	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.8	21.5	50.8	38.9	5.5	48.2	29.6	1.7	99.1	25.8	3.4
Queue Length 50th (ft)	48	55	44	159	0	46	298	0	~93	~451	12
Queue Length 95th (ft)	#112	85	#103	240	41	#111	#460	12	m#145	#586	m24
Internal Link Dist (ft)		169		578			419			1242	
Turn Bay Length (ft)	115		100		355	95		175	95		200
Base Capacity (vph)	157	1032	157	546	582	174	1480	719	157	1546	737
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.30	0.57	0.64	0.30	0.55	0.82	0.11	1.03	0.89	0.19

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

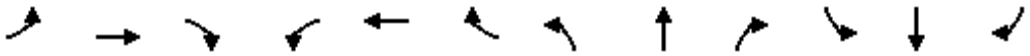
m Volume for 95th percentile queue is metered by upstream signal.

Intersection: 7: Sunset Lane & Atwood Avenue

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	402	53
Average Queue (ft)	157	17
95th Queue (ft)	372	43
Link Distance (ft)	409	273
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queues
1: Perris Boulevard & Eucalyptus Avenue

Perris/Dracaea Commercial Project
GPBO (2040) NP - PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	149	516	265	78	301	140	147	1551	88	111	1490	100
v/c Ratio	0.78	1.00	0.49	0.62	0.74	0.31	0.91	0.96	0.12	0.88	0.96	0.14
Control Delay	71.1	78.1	18.2	67.1	49.3	7.5	57.3	37.4	6.4	101.2	43.6	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.1	78.1	18.2	67.1	49.3	7.5	57.3	37.4	6.4	101.2	43.6	4.3
Queue Length 50th (ft)	94	~372	64	49	181	0	88	536	9	71	473	1
Queue Length 95th (ft)	#190	#572	144	#115	#301	48	m96	m#572	m14	#175	#637	30
Internal Link Dist (ft)		465			496			595			643	
Turn Bay Length (ft)	50		50	100			95		95	250		100
Base Capacity (vph)	198	517	536	126	407	457	162	1624	761	126	1552	724
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	1.00	0.49	0.62	0.74	0.31	0.91	0.96	0.12	0.88	0.96	0.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

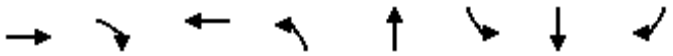
m Volume for 95th percentile queue is metered by upstream signal.

Intersection: 2: Perris Boulevard & Atwood Avenue

Movement	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	L	T	T	R
Maximum Queue (ft)	439	43	138	252	203	100	603	599	100
Average Queue (ft)	377	35	45	50	39	73	319	309	21
95th Queue (ft)	482	43	99	174	155	115	705	703	87
Link Distance (ft)	424	32		400	400		599	599	
Upstream Blk Time (%)	44	97					1	0	
Queuing Penalty (veh)	0	99					5	4	
Storage Bay Dist (ft)			50			50			50
Storage Blk Time (%)			1	6	9	29	27	30	
Queuing Penalty (veh)			12	4	1	257	41	5	

Intersection: 3: Perris Boulevard & Auto Center Driveway

Movement	SB	SB	SB
Directions Served	T	T	TR
Maximum Queue (ft)	428	418	75
Average Queue (ft)	360	363	32
95th Queue (ft)	476	475	92
Link Distance (ft)	400	400	
Upstream Blk Time (%)	19	20	
Queuing Penalty (veh)	181	190	
Storage Bay Dist (ft)			25
Storage Blk Time (%)		51	
Queuing Penalty (veh)		321	



Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	602	81	238	50	1664	70	1679	118
v/c Ratio	1.53	0.14	1.61	0.40	0.89	0.56	0.89	0.14
Control Delay	278.5	4.4	328.3	41.7	20.8	61.2	24.5	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	278.5	4.4	328.3	41.7	20.8	61.2	24.5	6.7
Queue Length 50th (ft)	~540	0	~210	27	193	47	312	11
Queue Length 95th (ft)	#751	25	#364	m35	#400	m61	m350	m15
Internal Link Dist (ft)	143		198		1242		119	
Turn Bay Length (ft)		50		100		95		
Base Capacity (vph)	394	561	148	126	1876	126	1884	866
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.53	0.14	1.61	0.40	0.89	0.56	0.89	0.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
5: Perris Boulevard & Cottonwood Avenue

Perris/Dracaea Commercial Project
GPBO (2040) NP - PM Peak Hour

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	190	511	41	221	173	80	1408	43	165	1567	126
v/c Ratio	0.67	0.50	0.28	0.71	0.42	0.52	0.89	0.06	1.15	0.95	0.16
Control Delay	50.9	28.7	47.6	52.2	7.8	57.1	36.1	0.1	142.3	39.9	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.9	28.7	47.6	52.2	7.8	57.1	36.1	0.1	142.3	39.9	6.8
Queue Length 50th (ft)	115	135	25	134	0	49	426	0	~121	~564	12
Queue Length 95th (ft)	177	174	58	207	48	#117	#680	0	m#151	m#749	m19
Internal Link Dist (ft)		169		578			419			1242	
Turn Bay Length (ft)	115		100		355	95		175	95		200
Base Capacity (vph)	406	1012	306	361	450	153	1585	768	144	1646	789
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.50	0.13	0.61	0.38	0.52	0.89	0.06	1.15	0.95	0.16

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

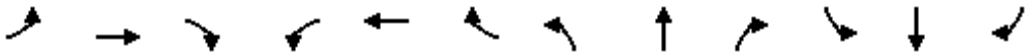
m Volume for 95th percentile queue is metered by upstream signal.

Intersection: 7: Sunset Lane & Atwood Avenue

Movement	WB
Directions Served	LT
Maximum Queue (ft)	433
Average Queue (ft)	416
95th Queue (ft)	487
Link Distance (ft)	418
Upstream Blk Time (%)	86
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queues
1: Perris Boulevard & Eucalyptus Avenue

Perris/Dracaea Commercial Project
GPBO (2040) WP - AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	61	170	167	109	401	216	206	1279	81	90	1446	92
v/c Ratio	0.39	0.49	0.39	0.50	0.88	0.39	no cap	0.76	0.10	0.57	1.02	0.13
Control Delay	42.2	34.9	6.9	42.6	51.9	6.3		19.0	0.7	50.8	54.1	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	42.2	34.9	6.9	42.6	51.9	6.3	Error	19.0	0.7	50.8	54.1	0.4
Queue Length 50th (ft)	29	80	0	49	196	0	~217	368	0	44	~386	0
Queue Length 95th (ft)	66	130	43	#122	#360	52	m#264	m#438	m2	#103	#538	0
Internal Link Dist (ft)		465			496			595			643	
Turn Bay Length (ft)	50		50	100			95		95	250		100
Base Capacity (vph)	157	439	503	216	463	551	1	1683	826	157	1421	727
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.39	0.33	0.50	0.87	0.39	206.00	0.76	0.10	0.57	1.02	0.13

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

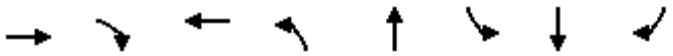
m Volume for 95th percentile queue is metered by upstream signal.

Intersection: 2: Perris Boulevard & Atwood Avenue

Movement	EB	WB	NB	NB	NB	NB	SB	SB
Directions Served	R	R	L	T	T	R	L	T
Maximum Queue (ft)	63	48	199	322	315	100	74	30
Average Queue (ft)	23	41	50	91	94	14	46	1
95th Queue (ft)	45	52	150	285	286	70	81	12
Link Distance (ft)	424	42		405	405			599
Upstream Blk Time (%)		63						
Queuing Penalty (veh)		86						
Storage Bay Dist (ft)			150			50	125	
Storage Blk Time (%)				14	27			0
Queuing Penalty (veh)				10	6			0

Intersection: 3: Perris Boulevard & Auto Center Driveway/Project Driveway 1

Movement	WB	NB	NB	SB	SB	SB
Directions Served	R	T	TR	T	T	TR
Maximum Queue (ft)	53	145	171	418	446	75
Average Queue (ft)	31	27	29	193	213	42
95th Queue (ft)	60	114	125	430	447	101
Link Distance (ft)	110	141	141	405	405	
Upstream Blk Time (%)		0	1	1	2	
Queuing Penalty (veh)		4	7	9	16	
Storage Bay Dist (ft)						25
Storage Blk Time (%)					39	
Queuing Penalty (veh)					234	



Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	205	59	416	74	1415	83	1508	175
v/c Ratio	0.50	0.11	0.94	0.40	0.88	0.44	0.93	0.22
Control Delay	26.2	4.8	56.2	40.5	23.0	27.0	20.6	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.2	4.8	56.2	40.5	23.0	27.0	20.6	0.9
Queue Length 50th (ft)	79	0	185	40	~380	42	~420	1
Queue Length 95th (ft)	143	21	#357	m49	m#500	m48	m#221	m0
Internal Link Dist (ft)	143		198		1242		119	
Turn Bay Length (ft)		50		100		100		
Base Capacity (vph)	434	590	470	203	1613	203	1623	791
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.10	0.89	0.36	0.88	0.41	0.93	0.22

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	114	308	90	349	189	96	1230	78	178	1399	155
v/c Ratio	0.73	0.32	0.57	0.76	0.36	0.55	0.89	0.11	1.13	0.97	0.22
Control Delay	63.2	20.6	50.8	38.9	5.7	48.2	34.7	1.8	120.7	30.6	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.2	20.6	50.8	38.9	5.7	48.2	34.7	1.8	120.7	30.6	3.3
Queue Length 50th (ft)	57	55	44	159	0	46	304	0	~110	~461	18
Queue Length 95th (ft)	#137	85	#103	240	45	#111	#470	12	m#132	m#531	m22
Internal Link Dist (ft)		169		578			419			1242	
Turn Bay Length (ft)	115		100		355	95		175	95		200
Base Capacity (vph)	157	1042	157	546	591	174	1381	679	157	1447	702
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.30	0.57	0.64	0.32	0.55	0.89	0.11	1.13	0.97	0.22

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Intersection: 6: Dracaea Avenue & Project Driveway 2

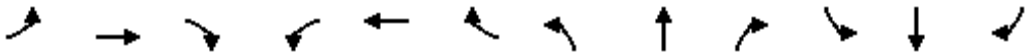
Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	117	171	102
Average Queue (ft)	31	31	59
95th Queue (ft)	76	102	98
Link Distance (ft)	210	274	106
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Sunset Lane & Atwood Avenue

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	424	94
Average Queue (ft)	125	28
95th Queue (ft)	394	76
Link Distance (ft)	409	273
Upstream Blk Time (%)	14	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queues
1: Perris Boulevard & Eucalyptus Avenue

Perris/Dracaea Commercial Project
GPBO (2040) WP - PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	155	516	275	88	301	140	201	1550	98	111	1495	100
v/c Ratio	0.80	1.00	0.51	0.70	0.74	0.31	no cap	0.95	0.13	0.88	0.96	0.14
Control Delay	73.8	78.1	19.1	74.4	49.6	7.6		33.4	6.7	101.2	44.2	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	73.8	78.1	19.1	74.4	49.6	7.6	Error	33.4	6.7	101.2	44.2	4.3
Queue Length 50th (ft)	98	~372	70	56	181	0	~273	536	12	71	475	1
Queue Length 95th (ft)	#201	#572	154	#133	#301	48	m#276	m523	m15	#175	#641	30
Internal Link Dist (ft)		465			496			595			643	
Turn Bay Length (ft)	50		50	100			95		95	250		100
Base Capacity (vph)	198	517	536	126	405	455	1	1624	761	126	1552	724
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	1.00	0.51	0.70	0.74	0.31	201.00	0.95	0.13	0.88	0.96	0.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

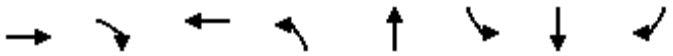
m Volume for 95th percentile queue is metered by upstream signal.

Intersection: 2: Perris Boulevard & Atwood Avenue

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	R	R	L	T	T	R	L	T	T	R
Maximum Queue (ft)	439	44	139	446	426	100	100	594	574	99
Average Queue (ft)	153	36	73	193	194	9	88	278	268	5
95th Queue (ft)	403	47	145	492	490	53	123	596	586	39
Link Distance (ft)	424	32		405	405			599	599	
Upstream Blk Time (%)	12	67		4	5			0		
Queuing Penalty (veh)	0	74		38	50			1		
Storage Bay Dist (ft)			150			50	125			50
Storage Blk Time (%)			1	39	43		48	19	23	
Queuing Penalty (veh)			13	31	6		430	36	5	

Intersection: 3: Perris Boulevard & Auto Center Driveway/Project Driveway 1

Movement	WB	NB	NB	SB	SB	SB
Directions Served	R	T	TR	T	T	TR
Maximum Queue (ft)	74	145	148	420	440	75
Average Queue (ft)	28	35	37	348	357	41
95th Queue (ft)	65	132	136	477	473	102
Link Distance (ft)	110	141	141	405	405	
Upstream Blk Time (%)		1	1	13	15	
Queuing Penalty (veh)		6	9	124	143	
Storage Bay Dist (ft)						25
Storage Blk Time (%)					50	
Queuing Penalty (veh)					313	



Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	623	81	309	49	1696	111	1659	117
v/c Ratio	1.61	0.14	5.24	0.39	0.95	0.88	0.88	0.14
Control Delay	315.4	4.4	1954.0	41.6	25.6	90.1	24.2	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	315.4	4.4	1954.0	41.6	25.6	90.1	24.2	6.6
Queue Length 50th (ft)	~574	0	~342	26	208	76	313	8
Queue Length 95th (ft)	#786	25	#513	m34	m#656	m96	m341	m14
Internal Link Dist (ft)	143		198		1242		119	
Turn Bay Length (ft)		50		100		100		
Base Capacity (vph)	386	561	59	126	1792	126	1884	866
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.61	0.14	5.24	0.39	0.95	0.88	0.88	0.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	200	511	41	221	183	80	1418	43	175	1577	136
v/c Ratio	0.68	0.50	0.28	0.72	0.45	0.53	0.90	0.06	1.22	0.96	0.17
Control Delay	50.8	28.4	47.6	52.9	8.9	57.8	37.6	0.1	144.6	34.1	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.8	28.4	47.6	52.9	8.9	57.8	37.6	0.1	144.6	34.1	7.0
Queue Length 50th (ft)	121	134	25	134	0	49	436	0	~135	~577	13
Queue Length 95th (ft)	184	174	58	209	56	#117	#687	0	m#162	m#721	m20
Internal Link Dist (ft)		169		578			419			1242	
Turn Bay Length (ft)	115		100		355	95		175	95		200
Base Capacity (vph)	406	1025	306	358	448	151	1570	762	144	1635	785
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.50	0.13	0.62	0.41	0.53	0.90	0.06	1.22	0.96	0.17

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Intersection: 6: Dracaea Avenue & Project Driveway 2

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	97	289	121
Average Queue (ft)	15	66	63
95th Queue (ft)	59	184	112
Link Distance (ft)	210	274	106
Upstream Blk Time (%)		3	14
Queuing Penalty (veh)		0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Sunset Lane & Atwood Avenue

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	433	71
Average Queue (ft)	186	15
95th Queue (ft)	457	44
Link Distance (ft)	418	199
Upstream Blk Time (%)	19	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

CITY OF MORENO VALLEY
PLANNING COMMISSION
VIA TELECONFERENCE ONLY
PURSUANT TO COVID-19
GOVERNOR EXECUTIVE ORDER N-29-20
NOTICE OF PUBLIC HEARING AND
ENVIRONMENTAL DETERMINATION

NOTICE IS HEREBY GIVEN that a teleconferenced Public Hearing will be held by the Planning Commission of the City of Moreno Valley on the date and time set forth below:

Date and Time:	November 12, 2020 at 7:00 p.m.
Location:	**VIA TELECONFERENCE ONLY** **Go to http://morenovalleyca.iqm2.com/Citizens/default.aspx for instructions.**
Item:	PEN19-0206 General Plan Amendment PEN19-0207 Change of Zone PEN19-0204 Conditional Use Permit PEN19-0205 Conditional Use Permit
Applicant:	Cadence Acquisition LLC
Property Owner:	John David Monjazi/Jonathan J Monjazi
APN:	479-120-027, 029, 042, and 043
Location:	East side of Perris Boulevard between Dracaea Avenue and Atwood Avenue
Proposal:	The applicant is requesting approval of the following entitlements for an 2.04-acre site: 1) a General Plan Amendment (GPA) amending Figure 2-2 "Land Use Map" of the Moreno Valley General Plan to change the land use designation of the project site from Residential/ Office (R/O) to Commercial (C); 2) a Change of Zone amending the City of Moreno Valley Zoning Atlas to rezone the project site from Office (O) District and Office Commercial (OC) District to Community Commercial (CC) District; 3) a Conditional Use permit for a vehicle fueling station and convenience store; and 4) a Conditional Use Permit for a drive-through restaurant with outdoor seating.
Council District:	3

Environmental Determination: The project has been evaluated against criteria set forth in the California Environmental Quality Act (CEQA) Guidelines Section 15070 and has determined that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because mitigation measures have been required of the project that will reduce potential impacts to a less than significant level. Therefore, a Mitigated Negative Declaration is recommended for the project.

PUBLIC TESTIMONY: All interested parties will be provided an opportunity to submit oral testimony during the teleconferenced Public Hearing and/or provide written testimony during or prior to the teleconferenced Public Hearing. The application file and related environmental documents may be inspected by appointment at the Community Development Department at 14177 Frederick Street, Moreno Valley, California by calling (951) 413-3206 during normal business hours (7:30 a.m. to 5:30 p.m., Monday through Thursday).

COVID-19 – IMPORTANT NOTICES: Please note that due to the COVID-19 pandemic situation, staff will attempt to make reasonable arrangements to ensure accessibility to inspect the aforementioned records. **In addition, special instructions on how to effectively participate in the teleconferenced Public Hearing, as approved by Governor Executive Order No. N-25-20, will be posted at http://morenovalleyca.iqm2.com/Citizens/default.aspx and will be described in the Planning Commission agenda.**

PLEASE NOTE: The Planning Commission may consider and approve changes to the proposed items under consideration during the teleconferenced Public Hearing.

GOVERNMENT CODE § 65009 NOTICE: If you challenge any of the proposed actions taken by the Planning Commission in court, you may be limited to raising only those issues you or someone else raised during the teleconferenced Public Hearing described in this notice, or in written correspondence delivered to the Planning Division of the City of Moreno Valley during or prior to, the teleconferenced Public Hearing.

ACCESSIBILITY: Upon request and in compliance with the Americans with Disabilities Act of 1990, any person with a disability who requires a modification or accommodation in order to participate

should direct such request to Guy Pegan, ADA Coordinator, at (951) 413-3120 at least 48 hours before the meeting. The 48-hour notification will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

STAFF CONTACT: Due to the COVID-19 pandemic situation, if you have questions regarding this Public Hearing, please contact Julia Descoteaux, Associate Planner, by telephone at (951) 413-3209 or via email at juliad@moval.org.

/s/Patty Nevins	Press-Enterprise	October 23, 2020
Patty Nevins Planning Official Community Development Department	Newspaper	Date of Publication

MITIGATED NEGATIVE DECLARATION

Project Name: Perris and Dracaea Commercial Retail

Project Location: The project is located in Township 3S, Range 3W, Section 8 of the Sunnymead, CA United States Geological Survey 7.5-minute quadrangle map of the San Bernardino Base Meridian. The project site is located on the northeast corner of Perris Boulevard and Dracaea Avenue in the City of Moreno Valley (City), Riverside County. The project site is currently vacant. The site consists of four parcels, Assessor's Parcel Number (APN) 479-120-027, 029, 042, and 043. The parcels are approximately 4,000 feet south of State Route 60 (SR-60) and Interstate 215 (I-215) is approximately 3.5 miles west of the project site (Figure 1 depicts the regional and project location and Figure 2 depicts the existing setting). The March Air Reserve Base is located approximately 2.75 miles southwest of the project site.

Findings: It is hereby determined that, based on the information contained in the attached Initial Study, the project would not have a significant adverse effect on the environment.

Mitigation measures necessary to avoid the potentially significant effects on the environment are included in the attached Initial Study, which is hereby incorporated and fully made part of this Mitigated Negative Declaration. The City of Moreno Valley has hereby agreed to implement each of the identified mitigation measures, which would be adopted as part of the attached Mitigation Monitoring and Reporting Program.

MITIGATION MONITORING AND REPORTING PROGRAM
PERRIS AND DRACAEA COMMERCIAL RETAIL PROJECT

This Mitigation Monitoring and Reporting Program has been prepared for use in implementing mitigation for the:

Perris and Dracaea Commercial Retail Project
City Case No. PPA18-0018

The program has been prepared in compliance with State law and the Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the project by the City of Moreno Valley (City).

The California Environmental Quality Act (CEQA) requires adoption of a reporting or monitoring program for those measures placed on a project to mitigate or avoid significant effects on the environment (Public Resource Code Section 21081.6). The law states the reporting or monitoring program shall be designed to ensure compliance during Project implementation.

The monitoring program contains the following elements:

1) The mitigation measures are recorded with the action and procedure necessary to ensure compliance. In some instances, one action may be used to verify implementation of several mitigation measures.

2) A procedure for compliance and verification has been outlined for each action necessary. This procedure designates who will take action, what action will be taken and when, and to whom and when compliance will be reported.

3) The program has been designed to be flexible. As monitoring progresses, changes to compliance procedures may be necessary based upon recommendations by those responsible for the program. As changes are made, new monitoring compliance procedures and records will be developed and incorporated into the program.

This Mitigation Monitoring and Reporting Program includes mitigation identified in the IS/MND.

MITIGATION MONITORING AND RESPONSIBILITIES

As the Lead Agency, the City is responsible for ensuring full compliance with the mitigation measures adopted for the proposed Project. The City will monitor and report on all mitigation activities. Mitigation measures will be implemented at different stages of development throughout the Project site. In this regard, the responsibilities for implementation have been assigned to the Applicant, Contractor, or a combination thereof. If during the course of Project implementation, any of the mitigation measures identified herein cannot be successfully implemented, the City shall be immediately informed, and the City will then inform any affected responsible agencies. The City, in conjunction with any affected responsible agencies, will then determine if modification to the project is required and/or whether alternative mitigation is appropriate.

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MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST

Project Name: Perris and Dracaea Commercial Retail Project **Applicant:** **Cadence Capital Investments, LLC**

Date: **October 19, 2020**

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
BIOLOGICAL RESOURCES					
MITIGATION MEASURE BIO-1: A nesting bird pre-construction survey will be conducted by a qualified biologist three days prior to ground-disturbing activities. Should nesting birds be found, an exclusionary buffer will be established by the qualified biologist. The buffer may be up to 500 feet in diameter depending on the species of nesting bird found. This buffer will be clearly marked in the field by construction personnel under guidance of the qualified biologist and construction or clearing will not be conducted within this zone until the qualified biologist determines that the young have fledged or the nest is no longer active. Nesting bird habitat within the project area will be resurveyed during bird breeding season if there is a lapse in construction activities longer than seven days.	Community Development Director or designee	Prior to ground-disturbing activities and during construction	Evidence to the City: 1) the required pre-construction survey has been completed 2) the establishment and maintenance (as applicable) of appropriate buffer(s)		Issuance of a stop work order
GEOLOGY AND SOILS					
MITIGATION MEASURE GEO-1: The Project Applicant shall retain a qualified paleontologist to attend the pre-grading meeting with the City, the construction manager and any contractors. The paleontologist will conduct a mandatory Paleontological Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the paleontological sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the protocols that apply in the event inadvertent discoveries of paleontological resources are identified, including who to contact	Community Development Director or designee	During the pre-grading meeting and throughout construction	Evidence to the City that a qualified paleontologist is retained and the Paleontological Resources Worker Sensitivity Training is administered as required		Issuance of a stop work order

and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Paleontological Sensitivity Training prior to beginning work, and the Project paleontologist shall make themselves available to provide the training on an as-needed basis.					
MITIGATION MEASURE GEO-2: If paleontological resources (fossils) are discovered during project grading, work shall be halted within 100 feet of the find until a qualified paleontologist assesses the significance of the find. The project paleontologist shall monitor remaining earthmoving activities at the project site and shall be equipped to record and salvage fossil resources that may be unearthed during grading activities. The paleontologist shall be empowered to temporarily halt or divert grading equipment to allow recording and removal of the unearthed resources. Any fossils found shall be evaluated in accordance with the CEQA Guidelines and offered for curation at an accredited facility approved by the City of Moreno Valley. Once grading activities have ceased or the paleontologist determines that monitoring is no longer necessary, monitoring activities shall be discontinued. This measure shall be implemented to the satisfaction of the City Planning Division.	Community Development Director or designee	During grading	Evidence to the City that a qualified paleontologist is retained to evaluate unanticipated encounters and monitors ground-disturbance as needed. Evidence to the City that recovered specimens are offered for curation		Issuance of a stop work order
HYDROLOGY AND WATER QUALITY					
MITIGATION MEASURE HYD-1: Prior to the issuance of a grading permit, the project applicant shall file and obtain a Notice of Intent (NOI) with the Regional Water Quality Control Board (RWQCB) in order to be in compliance with the State NPDES General Construction Storm Water Permit for discharge of surface runoff associated with construction activities. Evidence that this has been obtained (i.e., a copy of the Waste Discharger's Identification Number) shall be submitted to the City	Public Works Department	Prior to issuance of grading permit	Copy of the Waste Discharger's Identification Number submitted to City		Withhold grading permit

for coverage under the NPDES General Construction Permit. The NOI shall address the potential for an extended and discontinuous construction period based on funding availability.					
MITIGATION MEASURE HYD-2: Prior to the issuance of a grading permit, the project applicant shall prepare a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall include a surface water control plan and erosion control plan citing specific measures to control on-site and off-site erosion during the entire grading and construction period. In addition, the SWPPP shall emphasize structural and nonstructural Best Management Practices (BMPs) to control sediment and non-visible discharges from the site. The SWPPP would include inspection forms for routine monitoring of the site during construction phase to ensure NPDES compliance and additional BMPs and erosion control measures would be documented in the SWPPP and utilized if necessary. The SWPPP shall address the potential for an extended and discontinuous construction period based on funding availability. The SWPPP would be kept on site for the entire duration of project construction and would be available to the local RWQCB for inspection at any time. BMPs included in the SWPPP may include the following: • Sediment discharges from the site may be controlled by the following: sandbags, silt fences, straw wattles and temporary basins (if deemed necessary), and other discharge control devices. The construction and condition of the BMPs would be periodically inspected during construction and repairs would be made when necessary as required by the SWPPP. • Materials that have the potential to contribute to non-visible pollutants to storm water must not be placed in drainage ways and must be contained, elevated, and placed in temporary storage containment areas.	Public Works Department	Prior to issuance of grading permit	Submit a Storm Water Pollution Prevention Plan to the City and kept on site for the entire duration of Project construction and shall be available to the local Regional Water Quality Control Board for inspection.		Withhold grading permit

• All loose piles of soil, silt, clay, sand, debris, and other earthen material shall be protected in a reasonable manner to eliminate any discharge from the site. Stockpiles would be surrounded by silt fences and covered with plastic tarps. • In addition, the construction contractor shall be responsible for performing and documenting the application of BMPs identified in the SWPPP. Weekly inspections shall be performed on sandbag barriers and other sediment control measures called for in the SWPPP. Monthly reports and inspection logs shall be maintained by the Contractor and reviewed by the City and the representatives of the State Water Resources Control Board. In the event that it is not feasible to implement specific BMPs, the City can make a determination that other BMPs would provide equivalent or superior treatment either on or off site.					
MITIGATION MEASURE HYD-3: Prior to the issuance of a grading permit, the Project Applicant shall submit a Final Water Quality Management Plan (Final WQMP) to the City of Moreno Valley (City) for review and approval. The project shall implement project design features identified in the Final WQMP. The Final WQMP shall demonstrate that any proposed on-site development plan includes best management practices (BMPs) for source control, pollution prevention, site design, low impact development (LID) implementation, and structural treatment control. BMPs shall be designed and implemented to address 303(d) listed pollutants and retain the project site's minimum design capture volume and hydromodification volume to ensure post-development storm water runoff volume or time of concentration does not exceed pre-development storm water runoff by more than 10 percent of the two-year peak flow in accordance with the Santa Ana Regional Water Quality Control Board Order Number R8-2010-	Public Works Department	Prior to issuance of grading permit	Submit a Final Water Quality Management Plan and grading and development plans to the City detailing the low impact development best management practices.		Withhold grading permit

0033, National Pollutant Discharge Elimination System (NPDES) Permit No. CAS618033, as amended by Order No. R8-2013-0024, also known as the Municipal Separate Storm Sewer System (MS4) permit. The proposed LID BMPs specified in the Final WQMP shall be incorporated into the grading and development plans submitted to the City for review and approval. Periodic maintenance of any required BMPs and landscaped areas during project occupancy and operation shall be in accordance with the schedule outlined in the Final WQMP. This measure shall be implemented to the satisfaction of the City Public Works Department.					
NOISE					
MITIGATION MEASURE NOI-1: Prior to the issuance of a grading permit and during all phases of construction, the project applicant shall ensure the following measures are incorporated: • The construction contractor shall limit all grading-related activities, including operation of grading equipment, to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between the hours of 8:00 a.m. and 4:00 p.m. on Saturday in accordance with Moreno Valley Municipal Code Section 8.21.050(O). • The construction contractor shall limit the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work, to between the hours of 7:00 a.m. and 8:00 p.m. every day in accordance with Moreno Valley Municipal Code Section 11.80.030(D)(7). • During all project site excavation and grading, the project contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards. • The project contractor shall place all stationary construction equipment so that emitted noise is	City Building Inspector	Prior to issuance of grading and building permits and during all phases of construction	Evidence to the City the construction contractor complies with constriction noise ordinance		Withhold grading and building permits, and/or issuance of stop work order

directed away from sensitive receptors nearest the project site. • The construction contractor shall locate equipment staging in areas that would create the greatest distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.					
MITIGATION MEASURE NOI-2: The project applicant shall ensure that only small bulldozers are used within 15 feet of the residential structures immediately north and southeast of the project site to ensure vibration levels would not exceed the Federal Transit Administration's damage threshold of 94 velocity decibels (VdB) (0.2 peak particle velocity (PPV) [in/sec]) for buildings constructed of non-engineered timber and masonry. The project Applicant shall provide evidence to the City that this measure is incorporated into the project grading plans, and directional signage is placed on the construction site to direct equipment operators. This measure shall be implemented to the satisfaction of the Director of Building and Safety or designee.	City Building Inspector	Prior to issuance of grading permits and during construction	Evidence to the City: 1) Construction contractor will prohibit the use of heavy construction equipment (i.e., large bulldozers) along the Project north and east-southeast construction boundaries 2) Temporary on-site signage is placed in the immediate vicinity of the Project site's northern and eastern construction boundaries		Withhold grading permits and/or issuance of stop work order
TRANSPORTATION					
MITIGATION MEASURE TRA-1: Prior to issuance of an occupancy permit, the applicant shall provide evidence to the City that payment of fair share is made, as identified in the project-specific Transportation Impact Analysis (Appendix E) and Table 17.B of the Initial Study, for improvements at Perris Boulevard/Eucalyptus Avenue and Perris Boulevard/Cottonwood Avenue under project completion (2022) conditions and at Perris Boulevard/Eucalyptus Avenue and Perris Boulevard/Dracaea Avenue under General Plan build-out (2040) conditions. This measure shall be implemented to the satisfaction of the City of Moreno Valley Director of Engineering, or designee.	City Director of Engineering, or designee	Prior to issuance of occupancy permit	Evidence to the City fair share payment is made		Withhold occupancy permit

MITIGATION MONITORING AND REPORTING PROGRAM
PERRIS AND DRACAEA COMMERCIAL RETAIL PROJECT

TRIBAL CULTURAL RESOURCES					
MITIGATION MEASURE TCR-1: Prior to the issuance of a grading permit, the Developer shall retain a professional archaeologist to conduct monitoring of all mass grading and trenching activities. The Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Consulting Tribe(s), the contractor, and the City, shall develop a Cultural Resources Management Plan (CRMP) in consultation pursuant to the definition in AB52 to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. A consulting tribe is defined as a tribe that initiated the AB 52 tribal consultation process for the Project, has not opted out of the AB52 consultation process, and has completed AB 52 consultation with the City as provided for in Cal Pub Res Code Section 21080.3.2(b)(1) of AB52. Details in the Plan shall include: a. Project grading and development scheduling; b. The Project archeologist and the Consulting Tribes(s) as defined in **TCR-1** shall attend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new	Community Development Director or designee	Prior to issuance of grading and building permits and during ground-disturbing activities	Evidence to the City: 1. Professional archaeologist is retained for monitoring; 2. Interested Native American Tribes are engaged for project execution; 3. Preparation of a Cultural Resources Management Plan; 4. Administer Cultural Resources Worker Sensitivity Training;		Withhold grading permits and/or issuance of stop work order

construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Consulting Tribe(s) shall make themselves available to provide the training on an as-needed basis; c. The protocols and stipulations that the contractor, City, Consulting Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.					
MITIGATION MEASURE TCR-2: Prior to the issuance of a grading permit, the Developer shall secure agreements with the Soboba Band of Luiseño Indians (Soboba) and Pechanga Band of Luiseño Indians (Pechanga) for tribal monitoring. The Developer is also required to provide a minimum of 30 days advance notice to the tribes of all mass grading and trenching activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2.	Community Development Director or designee	Prior to issuance of grading and building permits and during ground-disturbing activities	Evidence to the City that interested Native American Tribes and a qualified archaeologist are retained for monitoring and appropriate buffers are established as necessary.		Withhold grading permits and/or issuance of stop work order

MITIGATION MEASURE TCR-3: In the event that Native American cultural resources are discovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries: a) One or more of the following treatments, in order of preference, shall be employed with the tribes. Evidence of such shall be provided to the City of Moreno Valley Planning Department: i. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place they were found with no development affecting the integrity of the resources. ii. Onsite reburial of the discovered items as detailed in the treatment plan required pursuant to Mitigation Measure TCR-1. This shall include measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed. No recordation of sacred items is permitted without the written consent of all Consulting Native American Tribal Governments as defined in TCR-1.	Community Development Director or designee	During ground-disturbing activities	Evidence to the City that Preservation-In-Place occurs for cultural resources, if feasible; or onsite reburial of the discovered items as detailed in the treatment plan required pursuant to Mitigation Measure TCR-1		Issuance of stop work order
MITIGATION MEASURE TCR-4: 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 and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find."	Community Development Director or designee	Prior to issuance of grading permit	Evidence to the City that unanticipated cultural resources note is included in grading plans		Withhold grading permit

MITIGATION MEASURE TCR-5: If potential historic or cultural resources are uncovered during excavation or construction activities at the project site, work in the affected area must cease immediately and a qualified person meeting the Secretary of the Interior's standards (36 CFR 61), Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the City to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, or prehistoric resource. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all Consulting Native American Tribes as defined in TCR-1 before any further work commences in the affected area.	Community Development Director or designee	During ground-disturbing activities	Qualified person meeting the Secretary of the Interior's standards (36 CFR 61), Tribal Representatives, and all site monitors per the Mitigation Measures, are consulted, and their recommendations are considered by the City		Issuance of stop work order
MITIGATION MEASURE TCR-6: If human remains are discovered, no further disturbance shall occur in the affected area 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 notified within 24 hours of the published finding to be given a reasonable opportunity 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).	Community Development Director or designee	During ground-disturbing activities	County Coroner is contacted for inspection and recommendations, and Native American Heritage Commission and most likely descendent are contacted as appropriate.		Issuance of stop work order

RESOLUTION NUMBER 2020-45

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY, CALIFORNIA, RECOMMENDING THAT THE CITY COUNCIL APPROVE GENERAL PLAN AMENDMENT PEN19-0206 TO AMEND THE GENERAL PLAN LAND USE MAP, CHANGING THE LAND USE DESIGNATION FROM RESIDENTIAL/OFFICE (R/O) TO COMMERCIAL (CC) FOR THE PROPERTY LOCATED AT THE NORTHEAST CORNER OF PERRIS BOULEVARD AND DRACAEA AVENUE (APNs 479-120-027, -029, -042, AND -043)

WHEREAS, the City of Moreno Valley ("City") is a general law city and a municipal corporation of the State of California; and

WHEREAS, Cadence Acquisition LLC., ("Developer") has filed an application for the approval of General Plan Amendment PEN19-0206 ("Application") requesting an amendment to the Moreno Valley General Plan from Residential/Office (R/O) to Commercial (C) for the property located at the northeast corner of Perris Boulevard and Dracaea Avenue (APN'S 479-120-027, 029, 042, AND 043) ("Site"); and

WHEREAS, pursuant to the provisions of Section 9.02.200 (Public Hearing and Notification Procedures) of the Moreno Valley Municipal Code and Government Code section 65905, a public hearing was scheduled for November 12, 2020, and notice thereof was duly published and posted, and mailed to all property owners of record within 600 feet of the Site; and

WHEREAS, on November 12, 2020, the public hearing to consider the Application was duly conducted by the Planning Commission at which time all interested persons were provided with an opportunity to testify and to present evidence; and

WHEREAS, on November 12, 2020, in accordance with the provisions of the California Environmental Quality Act (CEQA[1]) and CEQA Guidelines,[2] the Planning Commission considered and recommended that the City Council approve Resolution 2020-44.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Recitals and Exhibits

That the foregoing Recitals and attached exhibits are true and correct and are hereby incorporated by this reference.

Section 2. Notice

[1] Public Resources Code §§ 21000-21177
[2] 14 California Code of Regulations §§15000-15387

That pursuant to Government Code section 66020(d)(1), notice is hereby given that the proposed project is subject to certain fees, dedications, reservations and other exactions as provided herein.

Section 3. Evidence

That the Planning Commission has considered all of the evidence submitted into the administrative record for the General Plan Amendment, including, but not limited to, the following:

(a) Moreno Valley General Plan and all other relevant provisions contained therein;
(b) Title 9 (Planning and Zoning) of the Moreno Valley Municipal Code and all other relevant provisions referenced therein;
(c) The Moreno Valley General Plan amendment changing the land use designation from Residential/Office R/O to Commercial (C) and all other relevant provisions contained therein as shown on Exhibit A;
(d) Application for the approval of a General Plan Amendment PEN19-0206 and all documents, records and references contained therein;
(e) Staff Report prepared for the Planning Commission's consideration and all documents, records and references related thereto, and Staff's presentation at the public hearing;
(f) Testimony and/or comments from Applicant and its representatives during the public hearing; and
(g) Testimony and/or comments from all persons that was provided in written format or correspondence, at, or prior to, the public hearing.

Section 4. Findings

That based on the foregoing Recitals and the Evidence contained in the Administrative Record as set forth above, the Planning Commission makes the following findings:

(a) The proposed Change of Zone and General Plan amendment are consistent with the existing goals, objectives, policies and programs of the General Plan; and
(b) The proposed Change of Zone and General Plan amendment will not adversely affect the public health, safety or general welfare.

Section 5. Approval

That based on the foregoing Recitals, Administrative Record and Findings, the Planning Commission hereby recommends that the City Council approve General Plan Amendment PEN19-0206 attached hereto as Exhibit A.

Section 6. Repeal of Conflicting Provisions

That all the provisions as heretofore adopted by the Planning Commission that are

in conflict with the provisions of this Resolution are hereby repealed.

Section 7. **Severability**

That the Planning Commission declares that, should any provision, section, paragraph, sentence or word of this Resolution be rendered or declared invalid by any final court action in a court of competent jurisdiction or by reason of any preemptive legislation, the remaining provisions, sections, paragraphs, sentences or words of this Resolution as hereby adopted shall remain in full force and effect.

Section 8. **Effective Date**

That this Resolution shall take effect immediately upon the date of adoption.

Section 9. **Certification**

That the Secretary of the Planning Commission shall certify to the passage of this Resolution.

PASSED AND ADOPTED THIS _____ day of _____, 2020.

CITY OF MORENO VALLEY
PLANNING COMMISSION

_____
Patricia Korzec, Chairperson

ATTEST:

_____
Patty Nevins, Planning Official

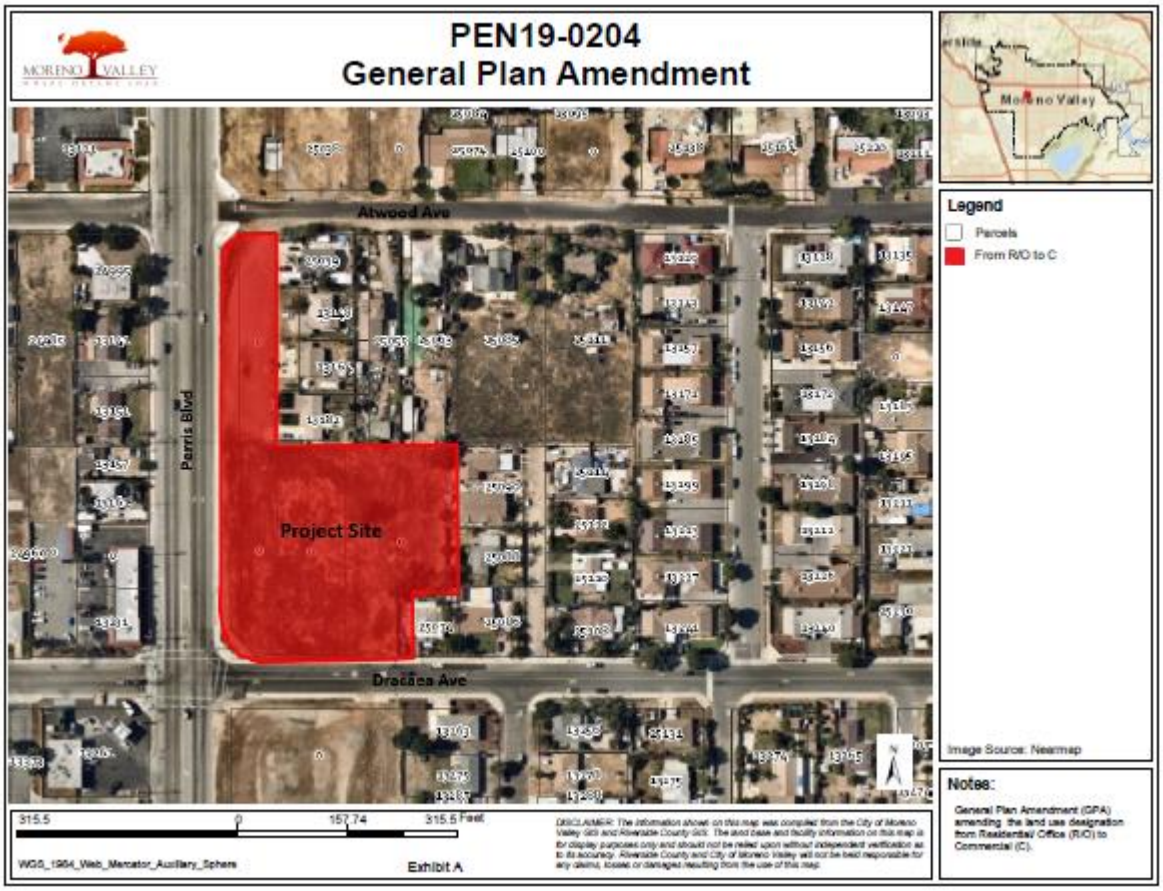
APPROVED AS TO FORM:

_____
Steven B. Quintanilla,
Interim City Attorney

Exhibits:
Exhibit A General Plan Land Use Designation

Exhibit A

General Plan Amendment Land Use Designation Map



RESOLUTION NUMBER 2020-46

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY, CALIFORNIA, RECOMMENDING THAT THE CITY COUNCIL APPROVE CHANGE OF ZONE PEN19-0207 TO AMEND THE CITY ZONING ATLAS FROM OFFICE (O) DISTRICT AND OFFICE COMMERCIAL (OC) DISTRICT TO COMMUNITY COMMERCIAL (CC) DISTRICT, FOR THE PROPERTY LOCATED AT THE NORTHEAST CORNER OF PERRIS BOULEVARD AND DRACAEA AVENUE (APNs 479-120-027, -029, -042, AND -043)

WHEREAS, the City of Moreno Valley ("City") is a general law city and a municipal corporation of the State of California; and

WHEREAS, Cadence Acquisition LLC., ("Developer") has filed an application for the approval of Change of Zone PEN19-0207 ("Application") a request to amend the City's Zoning Atlas from Office (O) District and Residential Office (R/O) District to Community Commercial (CC) District for the property located at the northeast corner of Perris Boulevard and Dracaea Avenue (APNs 479-120-027, -029, -042, AND -043) ("Site)"; and

WHEREAS, pursuant to the provisions of Section 9.02.200 (Public Hearing and Notification Procedures) of the Moreno Valley Municipal Code and Government Code section 65905, a public hearing was scheduled for November 12, 2020, and notice thereof was duly published and posted, and mailed to all property owners of record within 600 feet of the Site; and

WHEREAS, on November 12, 2020, the public hearing to consider the Application was duly conducted by the Planning Commission at which time all interested persons were provided with an opportunity to testify and to present evidence; and

WHEREAS, on November 12, 2020, in accordance with the provisions of the California Environmental Quality Act (CEQA[1]) and CEQA Guidelines,[2] the Planning Commission considered and recommended that the City Council approve Resolution 2020-44.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Recitals and Exhibits

That the foregoing Recitals and attached exhibits are true and correct and are hereby incorporated by this reference.

Section 2. Notice

[1] Public Resources Code §§ 21000-21177
[2] 14 California Code of Regulations §§15000-15387

That pursuant to Government Code section 66020(d)(1), notice is hereby given that the proposed project is subject to certain fees, dedications, reservations and other exactions as provided herein.

Section 3. Evidence

That the Planning Commission has considered all of the evidence submitted into the administrative record for the General Plan Amendment, including, but not limited to, the following:

(a) Moreno Valley General Plan and all other relevant provisions contained therein;
(b) Title 9 (Planning and Zoning) of the Moreno Valley Municipal Code and all other relevant provisions referenced therein;
(c) The Change of Zone to amend the City's Zoning Atlas from Office (O) District and Residential Office (R/O) District to Community Commercial (CC) District and all other relevant provisions contained therein as shown on Exhibit A;
(d) Application for the approval of a Change of Zone PEN19-0207 and all documents, records and references contained therein;
(e) Staff Report prepared for the Planning Commission's consideration and all documents, records and references related thereto, and Staff's presentation at the public hearing;
(f) Testimony and/or comments from Applicant and its representatives during the public hearing; and
(g) Testimony and/or comments from all persons that was provided in written format or correspondence, at, or prior to, the public hearing.

Section 4. Findings

That based on the foregoing Recitals and the Evidence contained in the Administrative Record as set forth above, the Planning Commission hereby finds as follows:

(a) The proposed Change of Zone is consistent with the existing goals, objectives, policies and programs of the General Plan;
(b) The proposed Change of Zone will not adversely affect the public health, safety or general welfare; and
(c) The proposed Change of Zone is consistent with the purposes and intent of Title 9.

Section 5. Approval

That based on the foregoing Recitals, Evidence in the Administrative Record and Findings, the Planning Commission hereby recommends that the City Council approve Change of Zone PEN19-0207 attached hereto as Exhibit A.

Section 6. Repeal of Conflicting Provisions

That all the provisions as heretofore adopted by the Planning Commission that are in conflict with the provisions of this Resolution are hereby repealed.

Section 7. Severability

That the Planning Commission declares that, should any provision, section, paragraph, sentence or word of this Resolution be rendered or declared invalid by any final court action in a court of competent jurisdiction or by reason of any preemptive legislation, the remaining provisions, sections, paragraphs, sentences or words of this Resolution as hereby adopted shall remain in full force and effect.

Section 8. Effective Date

That this Resolution shall take effect immediately upon the date of adoption.

Section 9. Certification

That the Secretary of the Planning Commission shall certify to the passage of this Resolution.

PASSED AND ADOPTED THIS _____ day of _____, 2020.

CITY OF MORENO VALLEY
PLANNING COMMISSION

_____
Patricia Korzec, Chairperson

ATTEST:

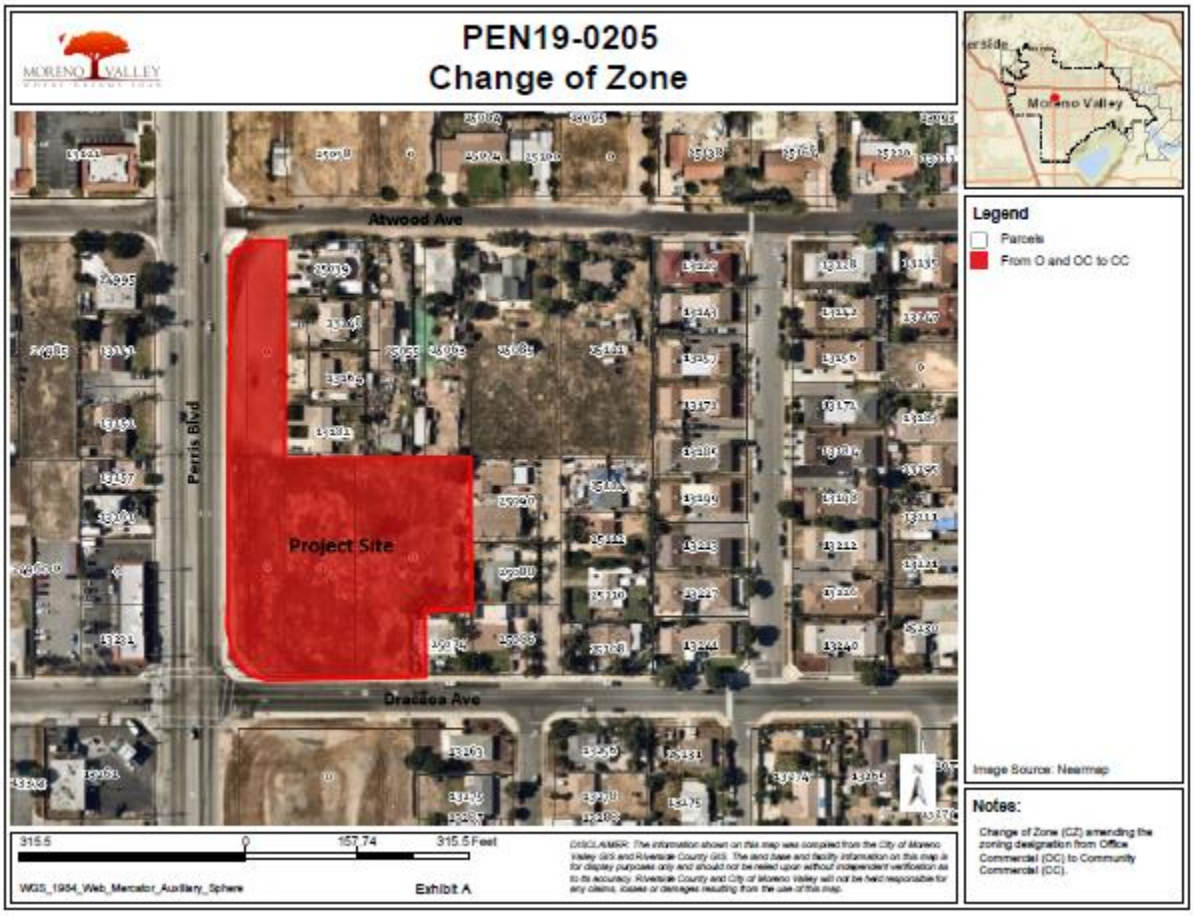
_____
Patty Nevins, Planning Official

APPROVED AS TO FORM:

_____
Steven B. Quintanilla,
City Attorney

Exhibits:
Exhibit A Proposed Zoning Map

Exhibit A



RESOLUTION NUMBER 2020-47

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY, CALIFORNIA, RECOMMENDING THAT THE CITY COUNCIL APPROVE CONDITIONAL USE PERMITS PEN19-0204 AND PEN20-0205 FOR THE PERRIS DRACAEA COMMERCIAL PROJECT LOCATED ON THE NORTH EAST CORNER OF PERRIS BOULEVARD AND DRACAEA AVENUE (APN'S 479-120-027, 029, 042, AND 043)

WHEREAS, the City of Moreno Valley ("City") is a general law city and a municipal corporation of the State of California; and

WHEREAS, Cadence Acquisition LLC, ("Developer") has filed an application for the approval of Conditional Use Permits PEN19-0204 and PEN19-0205 ("Applications") for the development of Perris Dracaea Commercial Project ("Project") located at the north east corner of Perris Boulevard and Dracaea Street ("Site"); and

WHEREAS, Section 9.02.060 (Conditional Use Permits) of the Moreno Valley Municipal Code acknowledges that the purpose of conditional use permits is to allow the establishment of uses that may have special impacts or uniqueness such that their effect on the surrounding environment cannot be determined in advance of the use being proposed for a particular location and that the conditional use permit application process involves the review of location, design and configuration of improvements related to the project, and the potential impact of the project on the surrounding area based on fixed and established standards; and

WHEREAS, the Application has been evaluated in accordance with Section 9.02.060 (Conditional Use Permits) of the Municipal Code with consideration given to the City's General Plan, Zoning Ordinance, and other applicable laws and regulations; and

WHEREAS, Section 9.02.060 of the Municipal Code imposes conditions of approval upon projects for which a CUP is required, which conditions may be imposed by the Planning Commission to address on-site improvements, off-site improvements, the manner in which the site is used and any other conditions as may be deemed necessary to protect the public health, safety and welfare and ensure that the proposed Project will be developed in accordance with the purpose and intent of Title 9 ("Planning and Zoning") of the Municipal Code; and

WHEREAS, Staff has presented for the Planning Commission's consideration Conditions of Approval to be imposed upon Conditional Use Permits PEN19-0204 and PEN20-0205 ("CUPs"), which conditions have been deemed necessary to protect the public health, safety and welfare and ensure that the proposed Project will be developed in accordance with the purpose and intent of Title 9 (Planning and Zoning) of the Municipal Code; and

WHEREAS, pursuant to the provisions of Section 9.02.200 (Public Hearing and Notification Procedures) of the Municipal Code and Government Code section 65905, a public hearing was scheduled for November 12, 2020, and notice thereof was duly published and posted, and mailed to all property owners of record within 600 feet of the Site; and

WHEREAS, on November 12, 2020, the public hearing to consider the Application was duly conducted by the Planning Commission at which time all interested persons were provided with an opportunity to testify and to present evidence; and

WHEREAS, consistent with the requirements of Section 9.02.060 (Conditional Use Permits) of the Municipal Code, at the public hearing the Planning Commission considered Conditions of Approval to be imposed upon Conditional Use Permits PEN19-0204 and PEN20-0205 (CUPs), which conditions were prepared by Planning Division staff who deemed said conditions to be necessary to protect the public health, safety and welfare and to ensure the proposed Project will be developed in accordance with the purpose and intent of Title 9 ("Planning and Zoning") of the Municipal Code; and

WHEREAS, at the public hearing, the Planning Commission considered whether each of the requisite findings specified in Section 9.02.060 of the Municipal Code and set forth herein could be made with respect to the proposed Project as conditioned by Conditions of Approval; and

WHEREAS, on November 12, 2020, in accordance with the provisions of the California Environmental Quality Act (CEQA[1]) and CEQA Guidelines,[2] the Planning Commission considered and recommended that the City Council approve Resolution 2020-44.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Recitals and Exhibits

That the foregoing Recitals and attached Exhibits are true and correct and are hereby incorporated by this reference.

Section 2. Notice

That pursuant to Government Code section 66020(d)(1), notice is hereby given that the proposed project is subject to certain fees, dedications, reservations and other exactions as provided herein.

Section 3. Evidence

[1] Public Resources Code §§ 21000-21177
[2] 14 California Code of Regulations §§15000-15387

That the Planning Commission has considered all of the evidence submitted into the administrative record for the proposed CUP, including, but not limited to, the following:

(a) Moreno Valley General Plan and all other relevant provisions contained therein;
(b) Title 9 (Planning and Zoning) of the Moreno Valley Municipal Code and all other relevant provisions referenced therein;
(c) Application for the approval of Conditional Use Permits (CUPs) PEN19-0204 and PEN19-0205 and all documents, records and references contained therein;
(d) Conditions of Approval for CUPs PEN19-0204 and PEN19-0205, attached hereto as Exhibit A and Exhibit B respectively;
(e) Staff Report prepared for the Planning Commission's consideration and all documents, records and references related thereto, and Staff's presentation at the public hearing;
(f) Testimony and/or comments from Applicant and its representatives during the public hearing; and
(g) Testimony and/or comments from all persons that was provided in written format or correspondence, at, or prior to, the public hearing.

Section 4. **Findings**

That based on the foregoing Recitals and the Evidence contained in the Administrative Record as set forth above, the Planning Commission makes the following findings in approving CUPs PEN19-0204 and PEN19-0205

(a) The proposed Project is consistent with the goals, objectives, policies and programs of the General Plan;
(b) The proposed Project complies with all applicable zoning and other regulations;
(c) The proposed Project will not be detrimental to the public health, safety or welfare or materially injurious to properties or improvements in the vicinity; and
(d) The location, design and operation of the proposed Project will be compatible with existing and planned land uses in the vicinity.

Section 5. **Approval**

That based on the foregoing Recitals, Evidence contained in the Administrative Record and Findings set forth above, the Planning Commission hereby recommends that the City Council approve CUPs PEN19-0204 and PEN19-0205 subject to the Conditions of Approval for CUPs PEN19-0204 and PEN19-0205 attached hereto as Exhibit A and Exhibit B respectively.

Section 6. **Repeal of Conflicting Provisions**

That all the provisions as heretofore adopted by the Planning Commission that are in conflict with the provisions of this Resolution are hereby repealed.

Section 7. **Severability**

That the Planning Commission declares that, should any provision, section, paragraph, sentence or word of this Resolution be rendered or declared invalid by any final court action in a court of competent jurisdiction or by reason of any preemptive legislation, the remaining provisions, sections, paragraphs, sentences or words of this Resolution as hereby adopted shall remain in full force and effect.

Section 8. **Effective Date**

That this Resolution shall take effect immediately upon the date of adoption.

Section 9. **Certification**

That the Secretary of the Planning Commission shall certify to the passage of this Resolution.

PASSED AND ADOPTED THIS _____ day of _____, 2020.

CITY OF MORENO VALLEY
PLANNING COMMISSION

_____
Patricia Korzec, Chairperson

ATTEST:

_____
Patty Nevins, Planning Official

APPROVED AS TO FORM:

_____
Steven B. Quintanilla, City Attorney

Exhibits:
Exhibit A: Conditions of Approval PEN19-0204
Exhibit B: Conditions of Approval PEN19-0205

Exhibit A

CONDITIONS OF APPROVAL

Exhibit B

CONDITIONS OF APPROVAL

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
Conditional Use Permit (PEN19-0204)

EFFECTIVE DATE:
EXPIRATION DATE:

COMMUNITY DEVELOPMENT DEPARTMENT

Planning Division

1. A change or modification to the land use or the approved site plans may require a separate approval. Prior to any change or modification, the property owner shall contact the City of Moreno Valley Community Development Department to determine if a separate approval is required.

2. Any expansion to this use or exterior alterations will require the submittal of a separate application(s) and shall be reviewed and approved under separate permit(s). (MC 9.02.080)

3. 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)

4. 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)

5. In the event the use hereby permitted ceases operation for a period of one (1) year or more, or as defined in the current Municipal Code, this permit may be revoked in accordance with provisions of the Municipal Code.

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

7. The site shall be developed in accordance with the approved plans on file in the Community 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)

8. 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), require separate application and approval by the Planning Division. No signs are permitted in the public right of way. (MC 9.12)

9. 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

10. To reduce single event noise impacts to below the level of 55 dBA beyond the boundaries of the property, delivery operations shall be limited to between the hours of 7am and 8pm. Loading or unloading activities shall be conducted from the truck bays or designated loading. (MC 9.10.140,)

11. Drive-up or drive-through speaker system shall not be detectable above daytime ambient noise levels beyond the property line boundaries, and shall not exceed fifty-five (55) dBA at any one time beyond the boundaries of the property line. (MC9.09.080 C.6 and 9.10.140)

12. 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 shall remain in place until the project is completed or the above conditions no longer exist.
(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).

13. The site has been approved for an approximately 3,000 square foot drive through restaurant with an outdoor seating area per the approved site plan. A change or modification shall require separate approval. For a Conditional Use Permit, violation may result in revocation of the Conditional Use Permit.

14. One outdoor trash receptacle shall be provided shall be provided for every ten (10) required parking spaces, with a minimum of one receptacle provided to be located front portion of the site for use by patrons. (MC 9.09.080 C 5.)

15. The hours of operation for the drive through restaurant shall be limited to 5:00am to 12:00am (Midnight) seven (7) days a week. This Condition is subject to the City Council's approval of a proposed Municipal Code Amendment currently under consideration by the City. Should the City Council not approve the Municipal Code Amendment the hours of operation for the drive through restaurant shall be limited to 6:00am to 10:00pm seven (7) days a week.

Prior to Grading Permit

16. Prior to issuance of any grading permit, all Conditions of Approval and Mitigation Measures shall be printed on the grading plans.

17. Prior to the issuance of grading permits, decorative (e.g. colored/scored concrete or as approve by the Planning Official) pedestrian pathways across circulation aisles/paths shall be provided throughout the development to connect dwellings with open spaces and/or recreational uses or commercial/industrial buildings with open space and/or parking. and/or the public right-of-way. The pathways shall be shown on the precise grading plan. (GP Objective 46.8, DG)

18. 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)

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

20. If potential historic, archaeological, Native American cultural resources or paleontological resources are uncovered during excavation or construction activities at the project site, work in the affected area must 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 immediately submitted to the Planning Division for consideration, and 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 during grading and other construction excavation, 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 notified within 5-days of the published finding to be given a reasonable opportunity 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).

21. 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. The pre-construction survey shall be submitted to the Planning Division prior to any disturbance of the site and/or grading permit issuance.

22. Prior to the issuance of grading permits, the site plan and grading plans shall show decorative hardscape (e.g. colored concrete, stamped concrete, pavers or as approved by the Planning Official) consistent and compatible with the design, color and materials of the proposed development for all driveway ingress/egress locations of the project.

23. 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 maximum 6 foot high solid decorative block perimeter wall with pilasters and a cap shall be required adjacent to all residential zoned areas.

    b. 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.

    c. 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.

    d. Walls and fences for visual screening are required when there are adjacent residential uses or residentially zone property. The height, placement and design will be based on a site specific review of the project. All walls are subject to the approval of the Planning Official. (DC 9.08.070)

24. 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.

25. Prior to issuance of grading permits, the location of the trash enclosure shall be included on the plans.

26. Prior to issuance of any building permit, all Conditions of Approval and Mitigation Measures shall be printed on the building plans.

27. Prior to the issuance of building permits, proposed covered trash enclosures shall be included in the Planning review of the Fence and Wall plan or separate Planning submittal. The trash enclosure(s), including the roof materials, shall be compatible with the architecture, color and materials of the building(s) design. Trash enclosure areas shall include landscaping on three sides. Approved design plans shall be included in a Building submittal (Fence and Wall or building design plans). (GP Objective 43.6, DG)

28. 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 Requirements 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. Drought tolerant landscape shall be used. Sod is limited to gathering areas with limited use.

d. Street trees shall be provided every 40 feet on center in the right of way.

e. 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.

f. Enhanced landscaping shall be provided at all driveway entries and street corner locations The review of all utility boxes, transformers etc. shall be coordinated to provide adequate screening from public view.

g. Landscaping on three sides of any trash enclosure.

h. 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.

29. 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)

30. Prior to issuance of a building permit, the developer/property owner or developer's successor-in-interest shall pay all applicable impact fees due at permit issuance, including but not limited to Multi-species Habitat Conservation Plan (MSHCP) mitigation fees. (Ord)

31. Prior to building final, the developer/owner or developer's/owner's successor-in-interest shall pay all applicable impact fees, including but not limited to Transportation Uniform Mitigation fees (TUMF), and the City's adopted Development Impact Fees. (Ord)

32. Prior to issuance of building permits, for projects that will be phased, a phasing plan shall be submitted to and approved by the Planning Division if occupancy is proposed to be phased.

33. Included with the building plan check submittal, a detailed, on-site, computer generated, point-by-point comparison lighting plan, including exterior building, parking lot, and landscaping lighting. 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, shall include style, illumination, location, height and method of shielding per the City's Municipal Code requirements. After the third plan check review for lighting plans, an additional plan check fee will apply. (MC 9.08.100, 9.16.280)

34. Prior to issuance of building permits, screening details shall be addressed on the building plans for roof top equipment submitted for Planning Division review and approval through the building plan check process. 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.

Prior to Building Final or Occupancy

35. Prior to building final, all required landscaping and irrigation shall be installed per plan, certified by the Landscape Architect and inspected by the Planning Division. (MC 9.03.040, MC 9.17).

36. Prior to building final, Planning approved/stamped landscape plans shall be provided to the Community Development Department – Planning Division on a CD disk.

37. Prior to 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).

38. Prior to building final, all required landscaping and irrigation shall be installed per plan, certified by the Landscape Architect and inspected by the Planning Division. (MC 9.03.040, MC 9.17).

39. Prior to building final, Planning approved/stamped landscape plans shall be provided to the Community Development Department – Planning Division on a CD disk.

40. Prior to 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).

Building Division

41. The proposed non-residential project shall comply with the latest Federal Law, Americans with Disabilities Act, and State Law, California Code of Regulations, Title 24, Chapter 11B for accessibility standards for the disabled including access to the site, exits, bathrooms, work spaces, etc.

42. Prior to submittal, all new development, including residential second units, are required to obtain a valid property address prior to permit application. Addresses can be obtained by contacting the Building Safety Division at 951.413.3350.

43. Contact the Building Safety Division for permit application submittal requirements.

44. Any construction within the city shall only be as follows: Monday through Friday seven a.m. to seven p.m(except for holidays which occur on weekdays), eight a.m. to four p.m.; weekends and holidays (as observed by the city and described in the Moreno Valley Municipal Code Chapter 2.55), unless written approval is first obtained from the Building Official or City Engineer.

45. Building plans submitted shall be signed and sealed by a California licensed design professional as required by the State Business and Professions Code.

46. The proposed development shall be subject to the payment of required development fees as required by the City's current Fee Ordinance at the time a building application is submitted or prior to the issuance of permits as determined by the City.

47. The proposed project will be subject to approval by the Eastern Municipal Water

District and all applicable fees and charges shall be paid prior to permit issuance. Contact the water district at 951.928.3777 for specific details.

48. All new structures shall be designed in conformance to the latest design standards adopted by the State of California in the California Building Code, (CBC) Part 2, Title 24, California Code of Regulations including requirements for allowable area, occupancy separations, fire suppression systems, accessibility, etc. The current code edition is the 2019 CBC.

49. The proposed non-residential project shall comply with 2019 California Green Building Standards Code, Section 5.106.5.3, mandatory requirements for Electric Vehicle Charging Station (EVCS).

50. The proposed project's occupancy shall be classified by the Building Official and must comply with exiting, occupancy separation(s) and minimum plumbing fixture requirements. Minimum plumbing fixtures shall be provided per the 2019 California Plumbing Code, Table 422.1. The occupant load and occupancy classification shall be determined in accordance with the California Building Code.

51. Prior to permit issuance, every applicant shall submit a properly completed Waste Management Plan (WMP), as a portion of the building or demolition permit process. (MC 8.80.030)

ECONOMIC DEVELOPMENT DEPARTMENT (EDD)

52. New Moreno Valley businesses may work with the Economic Development Department to coordinate job recruitment fairs.

53. New Moreno Valley businesses may adopt a "First Source" approach to employee recruitment that gives notice of job openings to Moreno Valley residents for one week in advance of the public recruitment.

54. New Moreno Valley businesses are encouraged to hire local residents.

55. New Moreno Valley businesses are encouraged to provide a job fair flyer and/or web announcement to the City in advance of job recruitments, so that the City can assist in publicizing these events.

56. New Moreno Valley businesses may utilize the workforce recruitment services provided by the Moreno Valley Employment Resource Center ("ERC").

The ERC offers no cost assistance to businesses recruiting and training potential employees. Complimentary services include:

• Job Announcements

- Applicant testing / pre-screening
- Interviewing
- Job Fair support
- Training space

FIRE DEPARTMENT

Fire Prevention Bureau

57. Prior to issuance of building permits, plans specifying the required structural materials for building construction in high fire hazard severity zones shall be submitted to the Fire Prevention Bureau for approval. (CFC, 4905)

58. 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 inches in height. (CFC 505.1, MVMC 8.36.060[I])

59. 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)

60. A fire extinguisher with a minimum rating of 3A:40BC shall be mounted in an accessible location within the cell site enclosure next to the fueled generator.

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

62. Dead-end streets and/or fire apparatus access roads in excess of 150 feet in length shall be provided with an approved turnaround for fire apparatus.

63. 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)

64. All Fire Department access roads or driveways shall not exceed 12 percent grade. (CFC 503.2.7 and MVMC 8.36.060[G])

65. The Fire Department emergency vehicular access road shall be (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. The approved fire access road shall be in place during the time of construction. Temporary fire access roads shall be approved by the Fire Prevention Bureau. (CFC 501.4, and MV City Standard Engineering Plan 108d)

66. 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)

67. 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 501.4)

68. 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. (CFC 501.3)

69. 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 and MVLT 440A-0 through MVLT 440C-0)

70. 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 effect at the time of building plan submittal.

71. The Fire Code Official is authorized to enforce the fire safety during construction requirements of Chapter 33. (CFC Chapter 33 & CBC Chapter 33)

72. Fire lanes and fire apparatus access roads shall have an unobstructed width of not less than twenty–four (24) feet 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])

73. 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, CFC 501.4)

74. 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 Code Official. 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)

75. The minimum number of fire hydrants required, as well as the location and spacing of fire hydrants, shall comply with the C.F.C., MVMC, and NFPA 24. Fire hydrants shall be located no closer than 40 feet to a building. A fire hydrant shall be located within 50 feet of the fire department connection for buildings protected with a fire sprinkler system. The size and number of outlets required for the approved fire hydrants are (6" x 4" x 2 ½" x 2 ½") (CFC 507.5.1, 507.5.7, Appendix C, NFPA 24-7.2.3, MVMC 912.2.1)

76. Fire Department access driveways over 150 feet in length shall have a turn-around as determined by the Fire Prevention Bureau capable of accommodating fire apparatus. (CFC 503 and MVMC 8.36.060, CFC 501.4)

77. 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)

78. 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)

79. Plans for private water mains supplying fire sprinkler systems and/or private fire hydrants shall be submitted to the Fire Prevention Bureau for approval. (CFC 105 and CFC 3312.1)

80. 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 said waterflow for 2 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)

81. 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)

82. 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. 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.

PUBLIC WORKS DEPARTMENT

Land Development

83. Aggregate slurry, as defined in Section 203-5 of Standard Specifications for Public Works Construction, shall be required prior to 90% security reduction or the end of the one-year warranty period of the public streets as approved by the City Engineer. If slurry is required, a slurry mix design shall be submitted for review and approved by the City Engineer. The latex additive shall be Ultra Pave 70 (for anionic) or Ultra Pave 65 K (for cationic) or an approved equal per the geotechnical report. 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.

84. 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]

85. The final approved conditions of approval (COAs) issued and any applicable Mitigation Measures by the Planning Division shall be photographically or electronically placed on mylar sheets and included in the Grading and Street Improvement plans.

86. The developer shall monitor, supervise and control all construction related 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 Land Development Division.
(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 during the grading operations.
Violation of any condition, restriction or prohibition set forth in these conditions shall

subject the owner, applicant, developer or contractor(s) to remedy as noted in 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.

87. Drainage facilities (e.g., catch basins, water quality basins, etc.) with sump conditions shall be designed to convey the tributary 100-year storm flows. Secondary emergency escape shall also be provided.

88. 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. If unsuccessful, the Developer 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]

89. If improvements associated with this project are not initiated within two (2) years of the date of approval of the Public Improvement Agreement (PIA), the City Engineer may require that the engineer's estimate for improvements 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 PIA or issuance of a permit. [MC 9.14.210(B)(C)]

90. The developer shall protect downstream properties from damage caused by alteration of drainage patterns (i.e. concentration or diversion of flow, etc). 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]

91. 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.

92. The maintenance responsibility of the proposed storm drain line shall be clearly identified. Storm drain lines within private property will be privately maintained and those within public streets will be publicly maintained.

93. The proposed on-site private storm drain system shall make a single connect to the

existing 60" storm drain in Perris Blvd. The connection may require a construction permit issued from RCFC&WCD and an encroachment permit by the City. A storm drain manhole shall be placed at the right-of-way line to mark the beginning of the publicly maintained portion of this storm drain.

94. This project shall submit civil engineering design plans, reports and/or documents (prepared by a registered/licensed civil engineer) for review and approval by the City Engineer per the current submittal requirements, prior to the indicated threshold or as required by the City Engineer. The submittal consists of, but is not limited to, the following:

a. Lot Line Adjustment recorded prior to building permit issuance;

b. Precise grading w/ erosion control plan prior to grading permit issuance;

c. Public Improvement Plans (e.g., STREET/STORM DRAIN w/ STRIPING, RCFC STORM DRAIN, SEWER/WATER, etc.) prior to Encroachment Permit issuance;

d. Final drainage study prior to grading plan approval;

e. Final WQMP prior to grading plan approval;

f. Legal Documents (e.g., EASEMENT(s),DEDICATION(s), LOT LINE ADJUSTMENT, VACATION, etc.) prior to Building Permit issuance;

g. As-Built revision for all plans prior to Occupancy release;

95. Water quality best management practices (BMPs) designed to meet Water Quality Management Plan (WQMP) requirements for single-family residential development shall not be used as a construction BMP. Water quality BMPs shall be maintained for the entire duration of the project construction and be used to treat runoff from those developed portions of the project. Water quality BMPs shall be protected from upstream construction related runoff by having proper best management practices in place and maintained. Water quality BMPs shall be graded per the approved design plans and once landscaping and irrigation has been installed, it and its maintenance shall be turned over to an established Homeowner's Association (HOA). The Homeowner's Association shall enter into an agreement with the City for basin maintenance.

Prior to Grading Plan Approval

96. Resolution of all drainage issues shall be as approved by the City Engineer.

97. A final detailed drainage study (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer. The study shall include, but not be limited to: existing and proposed hydrologic conditions as well as hydraulic calculations for all drainage control devices and storm drain lines. The study shall analyze 1, 3, 6 and 24-hour duration events for the 2, 5, 10 and 100-year storm events [MC 9.14.110(A.1)]. A digital (pdf) copy of the approved drainage study shall be submitted to the Land Development Division.

98. Emergency overflow areas shall be shown at all applicable drainage improvement locations in the event that the drainage improvement fails or exceeds full capacity.

99. The final project-specific Water Quality Management Plan (WQMP) shall be consistent with the approved P-WQMP, as well as in full conformance with the document: "Water Quality Management Plan - A Guidance Document for the Santa Ana Region of Riverside County" dated October 22, 2012. The F-WQMP shall be submitted and approved prior to application for and issuance of grading 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.

a. The Applicant has proposed to incorporate the use of Bioretention. Final design and sizing details of all BMPs must be provided in the first submittal of the F-WQMP. 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 document.

b. The Applicant shall substantiate the applicable Hydrologic Condition of Concerns (HCOC) in Section F of the F-WQMP. <The HCOC designates that the project will be exempt from mitigation requirements based on Exemption 3>.

c. All proposed LID BMP's shall be designed in accordance with the RCFC&WCD's Design Handbook for Low Impact Development Best Management Practices, dated September 2011.

d. The proposed LID BMP's as identified in the project-specific P-WQMP shall be incorporated into the Final WQMP.

e. The NPDES notes per City Standard Drawing No. MVFE-350-0 shall be included in the grading plans.

f. Post-construction treatment control BMPs, once placed into operation for post-construction water quality control, shall not be used to treat runoff from construction sites or unstabilized areas of the site.

g. Prior to precise grading plan approval, the grading plan shall show any proposed trash enclosure to include a cover (roof) and sufficient size for dual bin (1 for trash and 1 for recyclables). The architecture shall be approved by the Planning Division and any structural approvals shall be made by the Building and Safety Division.

100. The developer shall ensure compliance with the City Grading ordinance, these Conditions of Approval, drainage slope shall be per the latest Calif Building Code, City Standards 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. All improvement plans are substantially complete and appropriate clearance letters are provided to the City.

d. A soils/geotechnical report (addressing the soil's stability and geological conditions of the site) shall be submitted to the Land Development Division for review. A digital (pdf) copy of the soils/geotechnical report shall be submitted to the Land Development Division.

101. Grading plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

102. The developer shall select Low Impact Development (LID) Best Management Practices (BMPs) designed per the latest version of the Water Quality Management Plan (WQMP) - a guidance document for the Santa Ana region of Riverside County.

103. The developer shall pay all remaining plan check fees.

104. A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared in conformance with the State's current 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.

105. Any proposed trash enclosure shall include a solid cover (roof) and sufficient size for dual bin (one for trash and one for recyclables). The architecture shall be approved by the Planning Division and any structural approvals shall be made by the Building & Safety Division.

Prior to Grading Permit

106. A receipt showing payment of the Area Drainage Plan (ADP) fee to Riverside County Flood Control and Water Conservation District shall be submitted. [MC 9.14.100(O)]

107. For non-subdivision projects, a copy of the Covenants, Conditions and Restrictions (CC&Rs) shall be submitted for review by the City Engineer. 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.

108. If the developer chooses to construct the project in phases, a Construction Phasing Plan for the construction of on-site public or private improvements shall be submitted for review and approved by the City Engineer.

109. The developer shall pay current DIF fees adopted by the City Council. [Ord. 695 § 1.1 (part), 2005] [MC 3.38.030, 040, 050]

110. A digital (pdf) copy of all approved grading plans shall be submitted to the Land Development Division.

111. Security, in the form of a cash deposit (preferable), bond or letter of credit shall be submitted as a guarantee of the implementation and maintenance of erosion control measures. At least twenty-five (25) percent of the required security shall be in the form of a cash deposit with the City. [MC 8.21.160(H)]

112. Security, in the form of a cash deposit (preferable), bond or letter of credit shall be submitted as a guarantee of the completion of the grading operations for the project. [MC 8.21.070]

113. The developer shall pay all applicable inspection fees.

114. The developer shall pay current TUMF fees adopted by the City Council. [Ord. 835 § 2.1, 2012] [MC 3.44.060]

Prior to Improvement Plan Approval

115. 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, all access ramps in that intersection shall be retrofitted to comply with current ADA requirements, unless otherwise approved by the City Engineer.

116. The developer shall submit clearances from all applicable agencies, and pay all applicable plan check fees.

117. The street improvement plans shall comply with current City policies, plans and applicable City standards (i.e. MVSI-160 series, etc.) throughout this project.

118. The design plan and profile shall be based upon a centerline, extending beyond the project boundaries a minimum distance of 300 feet at a grade and alignment approved by the City Engineer.

119. Drainage facilities (i.e. catch basins, etc.) with sump conditions shall be designed to convey the tributary 100-year storm flows. Secondary emergency escape shall also be provided.

120. The hydrology study shall be designed to accept and properly convey all off-site drainage flowing onto or through the site. In the event that the City Engineer permits the use of streets for drainage purposes, the provisions of current City standards

shall 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 City Engineer. [MC 9.14.110 A.2]

121. All public improvement plans (prepared by a licensed/registered civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

122. Any missing or deficient existing improvements along the project frontage within the Project's frontage of Perris Blvd and Dracace Avenue shall be constructed or secured for construction. The City Engineer may require the ultimate structural section for pavement to half-street width plus 18 feet or provide core test results confirming that existing pavement section is per current City Standards; additional signing & striping to accommodate increased traffic imposed by the development, etc.

123. For non-subdivision projects, all street dedications shall be free of encumbrances, 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.

124. 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 (3) years old and recently slurry sealed streets less than one (1) year old. Pavement cuts may be allowed for emergency repairs or as specifically approved in writing by the City Engineer. Special requirements shall be imposed for repaving, limits to be determined by the City Engineer.

125. All dry and wet utilities shall be shown on the plans and any crossings shall be potholed to determine actual location and elevation. Any conflicts shall be identified and addressed on the plans. The pothole survey data shall be submitted to Land Development with the public improvement plans for reference purposes only. The developer is responsible to coordinate with all affected utility companies and bear all costs of any utility relocation.

126. The Applicant shall construct a bus turnout, per City Standards (MVSI-161-0) and as directed by the Transportation Engineering Division. Bus turnout will be located north of the Perris Blvd and Dracaea Avenue intersection, along the northbound travel lane and north of the Project's first driveway.

127. The Applicant shall construct the Perris Blvd median from the south side of the Project's Perris Blvd driveway, north of the intersection of Dracaea Avenue, north to the intersection of Atwood Avenue (approximately 460 feet). The median shall be constructed per City Standards and as directed by the City's Transportation

Engineering Division.

Prior to Encroachment Permit

128. A digital (pdf) copy of all approved improvement plans shall be submitted to the Land Development Division.

129. All applicable inspection fees shall be paid.

130. For non-subdivision projects, execution of a Public Improvement Agreement (PIA) and/or security (in the form of a cash deposit or other approved means) may be required as determined by the City Engineer. [MC 9.14.220]

131. 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 (3) years old and recently slurry sealed streets less than one (1) year old. Pavement cuts may be allowed for emergency repairs or as specifically approved in writing by the City Engineer. Special requirements shall be imposed for repaving, limits to be determined by the City Engineer.

132. Any work performed within public right-of-way requires an encroachment permit.

Prior to Building Permit

133. An engineered-fill certification, rough grade certification and compaction report shall be submitted for review and approved by the City Engineer. A digital (pdf) copy of the approved compaction report shall be submitted to the Land Development Division. All pads shall meet pad elevations per approved grading plans as noted by the setting of "blue-top" markers installed by a registered land surveyor or licensed civil engineer.

134. For non-subdivision projects, the developer shall guarantee the completion of all related public improvements required for this project by executing a Public Improvement Agreement (PIA) with the City and posting the required security. [MC 9.14.220]

135. For Commercial/Industrial projects, 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.

136. For non-subdivision projects, all street dedications shall be free of encumbrances, 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.

137. A walk through with a Land Development Inspector shall be scheduled to inspect existing improvements within public right of way along project frontage. Any missing, damaged or substandard improvements including ADA access ramps that do not meet current City standards shall be required to be installed, replaced and/or repaired. 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.

138. Certification to the line, grade, flow test and system invert elevations for the water quality control BMPs shall be submitted for review and approved by the City Engineer (excluding models homes).

Prior to Occupancy

139. All outstanding fees shall be paid.

140. All required as-built plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

141. The final/precise grade certification shall be submitted for review and approved by the City Engineer.

142. For commercial, industrial and multi-family projects, 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. 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, this project is subject to the following 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]

143. The developer shall complete all public improvements in conformance with current City standards, except as noted in the Special Conditions, including but not limited to the following:

a. Street improvements including, but not limited to: pavement, base, curb and/or gutter, cross gutters, spandrel, sidewalks, drive approaches, pedestrian ramps, street lights (SCE: LS-2) shall be installed per the City Standard MVSL-400B-2 and any power pole mounted street lights shall be removed, signing, striping, under sidewalk drains, 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, open channels, catch basins and local depressions.

c. City-owned utilities.

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

e. Under grounding of all existing and proposed utilities adjacent to and on-site. [MC 9.14.130]

f. Relocation of overhead electrical utility lines including, but not limited to: electrical, cable and telephone.

144. For commercial, industrial and multi-family projects, a "Stormwater Treatment Device and Control Measure Access and Maintenance Covenant", shall be recorded to provide public notice of the maintenance requirements to be implemented per the approved final project-specific WQMP. A boilerplate copy of the covenants and agreements can be obtained by contacting the Land Development Division.

145. 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 for review and approved by the City Engineer.

146. The Developer shall comply with the following water quality related items:

a. Notify the Land Development Division prior to construction and installation of all structural BMPs so that an inspection can be performed.

b. Demonstrate that all structural BMPs described in the approved final project-specific WQMP have been constructed and installed in conformance with the approved plans and specifications;

c. Demonstrate that Developer is prepared to implement all non-structural BMPs described in the approved final project-specific WQMP; and

d. Demonstrate that an adequate number of copies of the approved final project-specific WQMP are available for future owners/occupants.

e. Clean and repair the water quality BMP's, including re-grading to approved civil drawing if necessary.

f. Obtain approval and complete installation of the irrigation and landscaping.

Special Districts Division

147. This project is conditioned for a proposed district to provide a funding source for the operation and maintenance of public improvements and/or services associated with new development in that territory. The Developer shall satisfy this condition with one of the options outlined below.

a. Participate in a special election for maintenance/services and pay all associated costs of the election process and formation, if any. Financing may be structured through a Community Facilities District, Landscape and Lighting Maintenance District, or other financing structure as determined by the City; or

b. Establish an endowment fund to cover the future maintenance and/or service costs.

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting the application for building permit issuance. If the first building permit is pulled prior to formation of the district, this condition will not apply. If the district has been or is in the process of being formed the Developer must inform the Special Districts Division of its selected financing option (a. or b. above). The option for participating in a special election requires 90 days to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution.

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

148. Commercial (BP) If Land Development, a Division of the Public Works Department, requires this project to supply a funding source necessary to provide for, but not limited to, stormwater utilities services for the continuous operation, remediation and/or replacement, monitoring, systems evaluations and enhancement of on-site facilities and performing annual inspections of the affected areas to ensure compliance with state mandated stormwater regulations, a funding source needs to be established. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option for the National Pollution Discharge Elimination System (NPDES) program when submitting the application for the first building permit issuance (see Land

Development's related condition). Participating in a special election the process requires a 90 day period prior to the City's issuance of a building permit. This allows adequate time to be in compliance with the provisions of Article 13D of the California Constitution. (California Health and Safety Code Sections 5473 through 5473.8 (Ord. 708 Section 3.1, 2006) & City of Moreno Valley Municipal Code Title 3, Section 3.50.050.)

149. If a landscaped median is required, for those areas to be maintained by the City and prior to the issuance of the first Building Permit, Planning Division (Community Development Department), Special Districts Division (the Public Works Department) and Transportation Division (the Public Works Department) shall review and approve the final median, parkway, slope, and/or open space landscape/irrigation plans as designated on the tentative map or in these Conditions of Approval prior to the issuance of the first Building Permit.

150. 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 property owner shall agree to approve the mail ballot proceeding (special election) for either formation of the CFD or annexation into an existing district. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting the application for building permit issuance to determine the requirement for participation. If the first building permit is pulled prior to formation of the district, this condition will not apply. If the condition applies, the special election will require a minimum of 90 days prior to issuance of the first building permit. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution. (California Government Code Section 53313 et. seq.)

151. If a landscaped median is required, 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 commencing from the time all items of work have been completed to the satisfaction of Special Districts staff as per the City of Moreno Valley Public Works Department Landscape Design Guidelines, or until such time as the District accepts maintenance responsibilities.

152. If a landscaped median is required, parkway, median, slope and/or open space landscape areas maintained as part of the City of Moreno Valley Community Facilities District 2014-01 shall be required to have independent utility systems, including but not limited to water, electric, and telephone services. An independent irrigation controller and pedestal will also be required. Combining utility systems with existing or future landscape areas not associated with the City of Moreno

Valley Community Facilities District (CFD) landscaping will not be permitted.

153. If a landscaped median is required, plans for parkway, median, slope, and/or open space landscape areas designated in the project's Conditions of Approval for incorporation into a City Coordinated landscape maintenance program, shall be prepared and submitted in accordance with the City of Moreno Valley Public Works Department Landscape Design Guidelines. The guidelines are available on the City's website at www.moval.org/sd or from the Special Districts Division (951.413.3480 or specialdistricts@moval.org).

154. The ongoing maintenance of any landscaping required to be installed behind the curb shall be the responsibility of the property owner.

155. If a landscaped median is required, plan check fees for review of parkway/median landscape plans for improvements that shall be maintained by the City of Moreno Valley are due upon the first plan submittal. (MC 3.32.040)

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

157. If a landscaped median is required, parkway, open space, and/or median landscaping specified in the project's Conditions of Approval shall be constructed in compliance with the approved landscape plans and completed prior to the issuance of the first Certificate of Occupancy/Building Final for this project.

158. If a landscaped median is required, landscape and irrigation plans for parkway, median, slope, and/or open space landscape areas designated to be maintained by the City 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.

159. If a landscaped median is required, inspection fees for the monitoring of landscape installation associated with the City of Moreno Valley maintained parkways/medians are due prior to the required pre-construction meeting. (MC 3.32.040)

160. Major Infrastructure Financing District. This project has been identified to potentially be included in the formation of a special financing district for the construction and maintenance of major infrastructure improvements which may include but are not limited to thoroughfares, bridges, and certain flood control improvements. The property owner(s) shall participate in such district and pay any special tax, assessment, or fee levied upon the project property for such district. At the time of the public hearing to consider formation of or annexation into the district, the

qualified elector(s) will not protest the formation or annexation, but will retain the right to object to any eventual tax/assessment/fee that is not equitable should the financial burden of the tax/assessment/fee not be reasonably proportionate to the benefit the affected property obtains from the improvements to be installed and/or maintained. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting an application for the first building permit to determine whether the development will be subjected to this condition. If subject to the condition, the special election requires a minimum 90 day process in compliance with the provisions of Article 13C of the California Constitution.

161. NEW STREET LIGHT INSTALLATION FEES. Prior to the issuance of the first building permit for this project, the Developer shall pay New Street Light Installation Fees for all applicable Residential and Arterial Street Lights required for this development. Payment shall be made to the City of Moreno Valley and collected by the Land Development Division. Fees are 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 adopted by City Council. The Developer shall provide a copy of the receipt to the Special Districts Division (specialdistricts@moval.org). Any change in the project which may increase the number of street lights to be installed will require payment of additional Advanced Energy fees at the then current fee. Questions may be directed to the Special Districts Division at 951.413.3480 or specialdistricts@moval.org.

162. This project is conditioned to provide a funding source for the following special financing program(s):

a. Street Lighting Services for capital improvements, energy charges, and maintenance.

b. If a landscaped median is required, Landscape Maintenance Services for parkway, open space, and/or median landscaping on Perris Blvd.

The Developer's responsibility is to provide a funding source for the capital improvements and the continued maintenance. The Developer shall satisfy this condition with one of the options below.

i. Participate in a special election (mail ballot proceeding) and pay all associated costs of the special election and formation, 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

ii. Establish a Property Owner's Association (POA) or Home Owner's Association

(HOA) which will be responsible for any and all operation and maintenance costs

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option when submitting the application for building permit issuance. The option for participating in a special election requires approximately 90 days to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution.

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

163. Street Light Authorization forms for all street lights that are conditioned to be installed as part of this project must be submitted to the Special Districts Division for approval, prior to street light installation. The Street Light Authorization form can be obtained from the utility company providing electric service to the project, either Moreno Valley Utility or Southern California Edison. For questions, contact the Special Districts Division at 951.413.3480 or specialdistricts@moval.org.

Transportation Engineering Division

164. Prior to issuance of a construction permit, construction traffic control plans prepared by a qualified, registered Civil or Traffic engineer may be required for plan approval or as required by the City Traffic Engineer.

165. All project 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 Plans No. MVSI-112A~D-0 for commercial driveway approaches.
Driveway on Perris Boulevard shall be restricted to right-in and right-out movements only by raised median installation.

166. All proposed on-site traffic signing and striping should be accordance with the latest California Manual on Uniform Traffic Control Devices (CAMUTCD).

167. Prior to final approval of any landscaping or monument sign plans, the project plans shall demonstrate that sight distance at the project driveways conforms to City Standard Plan No. MVSI-164A, B, C-0.

168. A bus turnout is required along the project frontage per MVSI-161-0. Bus turn-out shall be installed on the east side of Perris Boulevard, along the property frontage.

169. Applicant shall modify geometrics at Perris Boulevard and Dracaea Avenue intersection to provide for eastbound and westbound left-turn lanes.

170. Applicant shall construct raised median on Perris Boulevard from Dracaea Avenue to north of intersection with Atwood Avenue.
a) At Atwood Avenue and Perris Boulevard intersection, median shall provide for full access north and south left-turn, through, and right-turn movements. The northbound and southbound left-turn lanes would have approximately 100 feet of queuing space plus taper.
b) Atwood Avenue should be restricted to right-in/right-out east and westbound movements with a directional median opening on Perris Boulevard.
c) Southbound left-turn lane at Perris Boulevard intersection with Dracaea Avenue shall provide at least 125 feet of queueing space plus taper.

171. The first parking stall/drive aisle juncture shall be 60 feet from the property line per Municipal Code Section 9.11.080 - A.18 or as approved by the City Engineer.

172. Prior to issuance of building permits, signing and striping plans shall be prepared by a registered, qualified civil or electrical engineer and submitted to the City for the required offsite improvements on Dracaea Avenue, Perris Boulevard, and Atwood Avenue.

173. Prior to issuance of a certificate of occupancy, a bus bay shall be installed per City of Moreno Valley Standard MVSI-161-0 on the east side of Perris Boulevard north of Dracaea Avenue, or as approved by the City Engineer.

174. Prior to issuance of certificate of occupancy, communication conduit shall be installed along project frontage on Perris Boulevard per City Standard Plan No. MVSI-186-0. Any improvements undertaken by this project shall be consistent with the City's standards for this facility.

175. Prior to issuance of a certificate of occupancy, median improvements on Perris Boulevard shall be installed per the approved plans and accepted by the City Engineer.

176. Prior to issuance of a certificate of occupancy, all signing and striping improvements on Dracaea Avenue and Perris Boulevard shall be installed per the approved plans and accepted by the City Engineer.

177. Prior to issuance of a certificate of occupancy, fair share payments for improvements identified on the Traffic Study shall be paid:
a) Perris Boulevard and Cottonwood Avenue Intersection.
b) Perris Boulevard and Eucalyptus Avenue Intersection.

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
Conditional Use Permit (PEN19-0205)

EFFECTIVE DATE:
EXPIRATION DATE:

COMMUNITY DEVELOPMENT DEPARTMENT

Planning Division

1. A change or modification to the land use or the approved site plans may require a separate approval. Prior to any change or modification, the property owner shall contact the City of Moreno Valley Community Development Department to determine if a separate approval is required.

2. Any expansion to this use or exterior alterations will require the submittal of a separate application(s) and shall be reviewed and approved under separate permit(s). (MC 9.02.080)

3. 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)

4. 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)

5. In the event the use hereby permitted ceases operation for a period of one (1) year or more, or as defined in the current Municipal Code, this permit may be revoked in accordance with provisions of the Municipal Code. (applicable to CUP's)

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

7. The site shall be developed in accordance with the approved plans on file in the Community 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)

8. 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), require separate application and approval by the Planning Division. No signs are permitted in the public right of way. (MC 9.12)

9. 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

10. To reduce single event noise impacts to below the level of 55 dBA beyond the boundaries of the property, delivery operations shall be limited to between the hours of 7am and 8pm. Loading or unloading activities shall be conducted from the truck bays or designated loading. (MC 9.10.140,)

11. The site has been approved for a a fueling station with an approximately 4,088 square foot convenience store with off-site beer and wine sales designed per the approved plans. A change or modification shall require separate approval. For a Conditional Use Permit, violation may result in revocation of the Conditional Use Permit.

12. 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 shall remain in place until the project is completed or the above conditions no longer exist. (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).

13. One outdoor trash receptacle shall be provided shall be provided for every ten (10) required parking spaces, with a minimum of one receptacle provided to be located front portion of the site for use by patrons. (MC 9.09.080 C 5.)

Prior to Grading Permit

14. Prior to issuance of any grading permit, all Conditions of Approval and Mitigation Measures shall be printed on the grading plans.

15. 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)

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

17. If potential historic, archaeological, Native American cultural resources or paleontological resources are uncovered during excavation or construction activities at the project site, work in the affected area must 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 immediately submitted to the Planning Division for consideration, and 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 during grading and other construction excavation, 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 notified within 5-days of the published finding to be given a reasonable opportunity 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).

18. 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. The pre-construction survey shall be submitted to the Planning Division prior to any disturbance of the site and/or grading permit issuance.

19. Prior to the issuance of grading permits, the site plan and grading plans shall show decorative hardscape (e.g. colored concrete, stamped concrete, pavers or as approved by the Planning Official) consistent and compatible with the design, color and materials of the proposed development for all driveway ingress/egress locations of the project.

20. 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 maximum 6 foot high solid decorative block perimeter wall with pilasters

and a cap shall be required around the perimeter of the development.

b. 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.

c. 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.

d. Walls and fences for visual screening are required when there are adjacent residential uses or residentially zone property. The height, placement and design will be based on a site specific review of the project. All walls are subject to the approval of the Planning Official. (DC 9.08.070)

21. 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.

22. Prior to issuance of grading permits, the location of the trash enclosure shall be included on the plans.

23. Prior to the issuance of grading permits, decorative (e.g. colored/scored concrete or as approve by the Planning Official) pedestrian pathways across circulation aisles/paths shall be provided throughout the development to connect dwellings with open spaces and/or recreational uses or commercial/industrial buildings with open space and/or parking. and/or the public right-of-way. The pathways shall be shown on the precise grading plan. (GP Objective 46.8, DG)

24. Prior to issuance of any building permit, all Conditions of Approval and Mitigation Measures shall be printed on the building plans.

25. Prior to the issuance of building permits, proposed covered trash enclosures shall be included in the Planning review of the Fence and Wall plan or separate Planning submittal. The trash enclosure(s), including the roof materials, shall be compatible with the architecture, color and materials of the building(s) design. Trash enclosure areas shall include landscaping on three sides. Approved design plans shall be included in a Building submittal (Fence and Wall or building design plans). (GP Objective 43.6, DG)

26. 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 Requirements 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. Drought tolerant landscape shall be used. Sod is limited to gathering areas with limited use.

d. Street trees shall be provided every 40 feet on center in the right of way.

e. 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.

f. Enhanced landscaping shall be provided at all driveway entries and street corner locations The review of all utility boxes, transformers etc. shall be coordinated to provide adequate screening from public view.

g. Landscaping on three sides of any trash enclosure.

h. 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.

27. 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)

28. Prior to issuance of a building permit, the developer/property owner or developer's successor-in-interest shall pay all applicable impact fees due at permit issuance, including but not limited to Multi-species Habitat Conservation Plan (MSHCP)

mitigation fees. (Ord)

29. Prior to building final, the developer/owner or developer's/owner's successor-in-interest shall pay all applicable impact fees, including but not limited to Transportation Uniform Mitigation fees (TUMF), and the City's adopted Development Impact Fees. (Ord)

30. Prior to issuance of building permits, for projects that will be phased, a phasing plan shall be submitted to and approved by the Planning Division if occupancy is proposed to be phased.

31. Prior to or at building plan check submittal, 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 prior to the issuance of a building permit. 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, shall include style, illumination, location, height and method of shielding per the City's Municipal Code requirements. After the third plan check review for lighting plans, an additional plan check fee will apply. (MC 9.08.100, 9.16.280)

32. Prior to issuance of building permits, screening details shall be addressed on the building plans for roof top equipment submitted for Planning Division review and approval through the building plan check process. 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.

Building Division

33. The proposed non-residential project shall comply with the latest Federal Law, Americans with Disabilities Act, and State Law, California Code of Regulations, Title 24, Chapter 11B for accessibility standards for the disabled including access to the site, exits, bathrooms, work spaces, etc.

34. Prior to submittal, all new development, including residential second units, are required to obtain a valid property address prior to permit application. Addresses can be obtained by contacting the Building Safety Division at 951.413.3350.

35. Contact the Building Safety Division for permit application submittal requirements.

36. Any construction within the city shall only be as follows: Monday through Friday seven a.m. to seven p.m(except for holidays which occur on weekdays), eight a.m. to four p.m.; weekends and holidays (as observed by the city and described in the

Moreno Valley Municipal Code Chapter 2.55), unless written approval is first obtained from the Building Official or City Engineer.

37. Building plans submitted shall be signed and sealed by a California licensed design professional as required by the State Business and Professions Code.

38. The proposed development shall be subject to the payment of required development fees as required by the City's current Fee Ordinance at the time a building application is submitted or prior to the issuance of permits as determined by the City.

39. The proposed project will be subject to approval by the Eastern Municipal Water District and all applicable fees and charges shall be paid prior to permit issuance. Contact the water district at 951.928.3777 for specific details.

40. All new structures shall be designed in conformance to the latest design standards adopted by the State of California in the California Building Code, (CBC) Part 2, Title 24, California Code of Regulations including requirements for allowable area, occupancy separations, fire suppression systems, accessibility, etc. The current code edition is the 2019 CBC.

41. The proposed non-residential project shall comply with 2019 California Green Building Standards Code, Section 5.106.5.3, mandatory requirements for Electric Vehicle Charging Station (EVCS).

42. The proposed project's occupancy shall be classified by the Building Official and must comply with exiting, occupancy separation(s) and minimum plumbing fixture requirements. Minimum plumbing fixtures shall be provided per the 2019 California Plumbing Code, Table 422.1. The occupant load and occupancy classification shall be determined in accordance with the California Building Code.

43. Prior to permit issuance, every applicant shall submit a properly completed Waste Management Plan (WMP), as a portion of the building or demolition permit process. (MC 8.80.030)

ECONOMIC DEVELOPMENT DEPARTMENT (EDD)

44. New Moreno Valley businesses may work with the Economic Development Department to coordinate job recruitment fairs.

45. New Moreno Valley businesses may adopt a "First Source" approach to employee recruitment that gives notice of job openings to Moreno Valley residents for one week in advance of the public recruitment.

46. New Moreno Valley businesses are encouraged to hire local residents.

47. New Moreno Valley businesses are encouraged to provide a job fair flyer and/or web announcement to the City in advance of job recruitments, so that the City can assist in publicizing these events.

48. New Moreno Valley businesses may utilize the workforce recruitment services provided by the Moreno Valley Employment Resource Center ("ERC").

    The ERC offers no cost assistance to businesses recruiting and training potential employees. Complimentary services include:

    • Job Announcements
    • Applicant testing / pre-screening
    • Interviewing
    • Job Fair support
    • Training space

FIRE DEPARTMENT

Fire Prevention Bureau

49. Prior to issuance of building permits, plans specifying the required structural materials for building construction in high fire hazard severity zones shall be submitted to the Fire Prevention Bureau for approval. (CFC, 4905)

50. 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 inches in height. (CFC 505.1, MVMC 8.36.060[I])

51. 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)

52. 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, MVMC 8.36.100[D])

53. Provide fire flow confirmation from EMWD for 1500 gpm at 20 psi for 2 hours

54. Identify locations of existing and proposed fire hydrants

55. The Fire Department emergency vehicular access road shall be (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. The approved fire access road shall be in place during the time of construction. Temporary fire access roads shall be approved by the Fire Prevention Bureau. (CFC 501.4, and MV City Standard Engineering Plan 108d)

56. 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 501.4)

57. 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. (CFC 501.3)

58. 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 and MVLT 440A-0 through MVLT 440C-0)

59. The Fire Code Official is authorized to enforce the fire safety during construction requirements of Chapter 33. (CFC Chapter 33 & CBC Chapter 33)

60. Fire lanes and fire apparatus access roads shall have an unobstructed width of not less than twenty–four (24) feet 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])

61. 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, CFC 501.4)

62. 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 Code Official. 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)

63. The minimum number of fire hydrants required, as well as the location and spacing of fire hydrants, shall comply with the C.F.C., MVMC, and NFPA 24. Fire hydrants shall be located no closer than 40 feet to a building. A fire hydrant shall be located within 50 feet of the fire department connection for buildings protected with a fire

sprinkler system. The size and number of outlets required for the approved fire hydrants are (6" x 4" x 2 ½" x 2 ½") (CFC 507.5.1, 507.5.7, Appendix C, NFPA 24-7.2.3, MVMC 912.2.1)

64. 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)

65. 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)

66. Plans for private water mains supplying fire sprinkler systems and/or private fire hydrants shall be submitted to the Fire Prevention Bureau for approval. (CFC 105 and CFC 3312.1)

67. 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 said waterflow for 2 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)

68. 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)

69. 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. 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.

PUBLIC WORKS DEPARTMENT

Land Development

70. Aggregate slurry, as defined in Section 203-5 of Standard Specifications for Public

Works Construction, shall be required prior to 90% security reduction or the end of the one-year warranty period of the public streets as approved by the City Engineer. If slurry is required, a slurry mix design shall be submitted for review and approved by the City Engineer. The latex additive shall be Ultra Pave 70 (for anionic) or Ultra Pave 65 K (for cationic) or an approved equal per the geotechnical report. 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.

71. 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]

72. The final approved conditions of approval (COAs) issued and any applicable Mitigation Measures by the Planning Division shall be photographically or electronically placed on mylar sheets and included in the Grading and Street Improvement plans.

73. The developer shall monitor, supervise and control all construction related 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 Land Development Division.
(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 during the grading operations.
Violation of any condition, restriction or prohibition set forth in these conditions shall subject the owner, applicant, developer or contractor(s) to remedy as noted in 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.

74. Drainage facilities (e.g., catch basins, water quality basins, etc.) with sump conditions shall be designed to convey the tributary 100-year storm flows. Secondary emergency escape shall also be provided.

75. 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. If unsuccessful, the Developer 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]

76. If improvements associated with this project are not initiated within two (2) years of the date of approval of the Public Improvement Agreement (PIA), the City Engineer may require that the engineer's estimate for improvements 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 PIA or issuance of a permit. [MC 9.14.210(B)(C)]

77. The developer shall protect downstream properties from damage caused by alteration of drainage patterns (i.e. concentration or diversion of flow, etc). 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]

78. 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.

79. The maintenance responsibility of the proposed storm drain line shall be clearly identified. Storm drain lines within private property will be privately maintained and those within public streets will be publicly maintained.

80. The proposed on-site private storm drain system shall make a single connect to the existing 60" storm drain in Perris Blvd. The connection may require a construction permit issued from RCFC&WCD and an encroachment permit by the City. A storm drain manhole shall be placed at the right-of-way line to mark the beginning of the publicly maintained portion of this storm drain.

81. This project shall submit civil engineering design plans, reports and/or documents (prepared by a registered/licensed civil engineer) for review and approval by the City Engineer per the current submittal requirements, prior to the indicated threshold or as required by the City Engineer. The submittal consists of, but is not limited to, the following:

    a. Lot Line Adjustment recorded prior to building permit issuance;

b. Precise grading w/ erosion control plan prior to grading permit issuance;

c. Public Improvement Plans (e.g., STREET/STORM DRAIN w/ STRIPING, RCFC STORM DRAIN, SEWER/WATER, etc.) prior to Encroachment Permit issuance;

d. Final drainage study prior to grading plan approval;

e. Final WQMP prior to grading plan approval;

f. Legal Documents (e.g., EASEMENT(s),DEDICATION(s), LOT LINE ADJUSTMENT, VACATION, etc.) prior to Building Permit issuance;

g. As-Built revision for all plans prior to Occupancy release;

82. Water quality best management practices (BMPs) designed to meet Water Quality Management Plan (WQMP) requirements for single-family residential development shall not be used as a construction BMP. Water quality BMPs shall be maintained for the entire duration of the project construction and be used to treat runoff from those developed portions of the project. Water quality BMPs shall be protected from upstream construction related runoff by having proper best management practices in place and maintained. Water quality BMPs shall be graded per the approved design plans and once landscaping and irrigation has been installed, it and its maintenance shall be turned over to an established Homeowner's Association (HOA). The Homeowner's Association shall enter into an agreement with the City for basin maintenance.

Prior to Grading Plan Approval

83. Resolution of all drainage issues shall be as approved by the City Engineer.

84. A final detailed drainage study (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer. The study shall include, but not be limited to: existing and proposed hydrologic conditions as well as hydraulic calculations for all drainage control devices and storm drain lines. The study shall analyze 1, 3, 6 and 24-hour duration events for the 2, 5, 10 and 100-year storm events [MC 9.14.110(A.1)]. A digital (pdf) copy of the approved drainage study shall be submitted to the Land Development Division.

85. Emergency overflow areas shall be shown at all applicable drainage improvement locations in the event that the drainage improvement fails or exceeds full capacity.

86. The final project-specific Water Quality Management Plan (WQMP) shall be consistent with the approved P-WQMP, as well as in full conformance with the document: "Water Quality Management Plan - A Guidance Document for the Santa Ana Region of Riverside County" dated October 22, 2012. The F-WQMP shall be submitted and approved prior to application for and issuance of grading 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.

a. The Applicant has proposed to incorporate the use of Bioretention. Final design and sizing details of all BMPs must be provided in the first submittal of the F-WQMP. 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 document.

b. The Applicant shall substantiate the applicable Hydrologic Condition of Concerns (HCOC) in Section F of the F-WQMP. <The HCOC designates that the project will be exempt from mitigation requirements based on Exemption 3>.

c. All proposed LID BMP's shall be designed in accordance with the RCFC&WCD's Design Handbook for Low Impact Development Best Management Practices, dated September 2011.

d. The proposed LID BMP's as identified in the project-specific P-WQMP shall be incorporated into the Final WQMP.

e. The NPDES notes per City Standard Drawing No. MVFE-350-0 shall be included in the grading plans.

f. Post-construction treatment control BMPs, once placed into operation for post-construction water quality control, shall not be used to treat runoff from construction sites or unstabilized areas of the site.

g. Prior to precise grading plan approval, the grading plan shall show any proposed trash enclosure to include a cover (roof) and sufficient size for dual bin (1 for trash and 1 for recyclables). The architecture shall be approved by the Planning Division and any structural approvals shall be made by the Building and Safety Division.

87. The developer shall ensure compliance with the City Grading ordinance, these Conditions of Approval, drainage slope shall be per the latest Calif Building Code, City Standards 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. All improvement plans are substantially complete and appropriate clearance letters are provided to the City.

d. A soils/geotechnical report (addressing the soil's stability and geological conditions of the site) shall be submitted to the Land Development Division for review. A digital (pdf) copy of the soils/geotechnical report shall be submitted to the Land Development Division.

88. Grading plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal

requirements.

89. The developer shall select Low Impact Development (LID) Best Management Practices (BMPs) designed per the latest version of the Water Quality Management Plan (WQMP) - a guidance document for the Santa Ana region of Riverside County.

90. The developer shall pay all remaining plan check fees.

91. A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared in conformance with the State's current 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.

92. Any proposed trash enclosure shall include a solid cover (roof) and sufficient size for dual bin (one for trash and one for recyclables). The architecture shall be approved by the Planning Division and any structural approvals shall be made by the Building & Safety Division.

Prior to Grading Permit

93. A receipt showing payment of the Area Drainage Plan (ADP) fee to Riverside County Flood Control and Water Conservation District shall be submitted. [MC 9.14.100(O)]

94. For non-subdivision projects, a copy of the Covenants, Conditions and Restrictions (CC&Rs) shall be submitted for review by the City Engineer. 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.

95. If the developer chooses to construct the project in phases, a Construction Phasing Plan for the construction of on-site public or private improvements shall be submitted for review and approved by the City Engineer.

96. The developer shall pay current DIF fees adopted by the City Council. [Ord. 695 § 1.1 (part), 2005] [MC 3.38.030, 040, 050]

97. A digital (pdf) copy of all approved grading plans shall be submitted to the Land Development Division.

98. Security, in the form of a cash deposit (preferable), bond or letter of credit shall be submitted as a guarantee of the implementation and maintenance of erosion control measures. At least twenty-five (25) percent of the required security shall be in the form of a cash deposit with the City. [MC 8.21.160(H)]

99. Security, in the form of a cash deposit (preferable), bond or letter of credit shall be

submitted as a guarantee of the completion of the grading operations for the project. [MC 8.21.070]

100. The developer shall pay all applicable inspection fees.

101. The developer shall pay current TUMF fees adopted by the City Council. [Ord. 835 § 2.1, 2012] [MC 3.44.060]

Prior to Improvement Plan Approval

102. 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, all access ramps in that intersection shall be retrofitted to comply with current ADA requirements, unless otherwise approved by the City Engineer.

103. The developer shall submit clearances from all applicable agencies, and pay all applicable plan check fees.

104. The street improvement plans shall comply with current City policies, plans and applicable City standards (i.e. MVSI-160 series, etc.) throughout this project.

105. The design plan and profile shall be based upon a centerline, extending beyond the project boundaries a minimum distance of 300 feet at a grade and alignment approved by the City Engineer.

106. Drainage facilities (i.e. catch basins, etc.) with sump conditions shall be designed to convey the tributary 100-year storm flows. Secondary emergency escape shall also be provided.

107. The hydrology study shall be designed to accept and properly convey all off-site drainage flowing onto or through the site. In the event that the City Engineer permits the use of streets for drainage purposes, the provisions of current City standards shall 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 City Engineer. [MC 9.14.110 A.2]

108. All public improvement plans (prepared by a licensed/registered civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

109. Any missing or deficient existing improvements along the project frontage within the

Project's frontage of Perris Blvd and Dracace Avenue shall be constructed or secured for construction. The City Engineer may require the ultimate structural section for pavement to half-street width plus 18 feet or provide core test results confirming that existing pavement section is per current City Standards; additional signing & striping to accommodate increased traffic imposed by the development, etc.

110. For non-subdivision projects, all street dedications shall be free of encumbrances, 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.

111. 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 (3) years old and recently slurry sealed streets less than one (1) year old. Pavement cuts may be allowed for emergency repairs or as specifically approved in writing by the City Engineer. Special requirements shall be imposed for repaving, limits to be determined by the City Engineer.

112. All dry and wet utilities shall be shown on the plans and any crossings shall be potholed to determine actual location and elevation. Any conflicts shall be identified and addressed on the plans. The pothole survey data shall be submitted to Land Development with the public improvement plans for reference purposes only. The developer is responsible to coordinate with all affected utility companies and bear all costs of any utility relocation.

113. The Applicant shall construct a bus turnout, per City Standards (MVSI-161-0) and as directed by the Transportation Engineering Division. Bus turnout will be located north of the Perris Blvd and Dracaea Avenue intersection, along the northbound travel lane and north of the Project's first driveway.

114. The Applicant shall construct the Perris Blvd median from the intersection of Dracaea Avenue, north to the prolongation of the Parcel 2 (APN 479120042) northerly property line (approximately 330 feet). The median shall be constructed per City Standards and as directed by the City's Transportation Engineering Division.

Prior to Encroachment Permit

115. A digital (pdf) copy of all approved improvement plans shall be submitted to the Land Development Division.

116. All applicable inspection fees shall be paid.

117. For non-subdivision projects, execution of a Public Improvement Agreement (PIA)

and/or security (in the form of a cash deposit or other approved means) may be required as determined by the City Engineer. [MC 9.14.220]

118. 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 (3) years old and recently slurry sealed streets less than one (1) year old. Pavement cuts may be allowed for emergency repairs or as specifically approved in writing by the City Engineer. Special requirements shall be imposed for repaving, limits to be determined by the City Engineer.

119. Any work performed within public right-of-way requires an encroachment permit.

Prior to Building Permit

120. An engineered-fill certification, rough grade certification and compaction report shall be submitted for review and approved by the City Engineer. A digital (pdf) copy of the approved compaction report shall be submitted to the Land Development Division. All pads shall meet pad elevations per approved grading plans as noted by the setting of "blue-top" markers installed by a registered land surveyor or licensed civil engineer.

121. For non-subdivision projects, the developer shall guarantee the completion of all related public improvements required for this project by executing a Public Improvement Agreement (PIA) with the City and posting the required security. [MC 9.14.220]

122. For Commercial/Industrial projects, 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.

123. For non-subdivision projects, all street dedications shall be free of encumbrances, 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.

124. A walk through with a Land Development Inspector shall be scheduled to inspect existing improvements within public right of way along project frontage. Any missing, damaged or substandard improvements including ADA access ramps that do not meet current City standards shall be required to be installed, replaced and/or repaired. 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.

125. Certification to the line, grade, flow test and system invert elevations for the water quality control BMPs shall be submitted for review and approved by the City

Engineer (excluding models homes).

Prior to Occupancy

126. All outstanding fees shall be paid.

127. All required as-built plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

128. The final/precise grade certification shall be submitted for review and approved by the City Engineer.

129. For commercial, industrial and multi-family projects, 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. 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, this project is subject to the following 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]

130. The developer shall complete all public improvements in conformance with current City standards, except as noted in the Special Conditions, including but not limited to the following:

a. Street improvements including, but not limited to: pavement, base, curb and/or gutter, cross gutters, spandrel, sidewalks, drive approaches, pedestrian ramps, street lights(SCE: LS-2) shall be installed per the City Standard MVSL-400B-2 and any power pole mounted street lights shall be removed, signing, striping, under sidewalk drains, 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, open channels, catch basins and local depressions.

c. City-owned utilities.

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

e. Under grounding of all existing and proposed utilities adjacent to and on-site. [MC 9.14.130]

f. Relocation of overhead electrical utility lines including, but not limited to: electrical, cable and telephone.

131. For commercial, industrial and multi-family projects, a "Stormwater Treatment Device and Control Measure Access and Maintenance Covenant", shall be recorded to provide public notice of the maintenance requirements to be implemented per the approved final project-specific WQMP. A boilerplate copy of the covenants and agreements can be obtained by contacting the Land Development Division.

132. 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 for review and approved by the City Engineer.

133. The Developer shall comply with the following water quality related items:

a. Notify the Land Development Division prior to construction and installation of all structural BMPs so that an inspection can be performed.

b. Demonstrate that all structural BMPs described in the approved final project-specific WQMP have been constructed and installed in conformance with the approved plans and specifications;

c. Demonstrate that Developer is prepared to implement all non-structural BMPs described in the approved final project-specific WQMP; and

d. Demonstrate that an adequate number of copies of the approved final project-specific WQMP are available for future owners/occupants.

e. Clean and repair the water quality BMP's, including re-grading to approved civil drawing if necessary.

f. Obtain approval and complete installation of the irrigation and landscaping.

Special Districts Division

134. This project is conditioned for a proposed district to provide a funding source for the operation and maintenance of public improvements and/or services associated with

new development in that territory. The Developer shall satisfy this condition with one of the options outlined below.

a. Participate in a special election for maintenance/services and pay all associated costs of the election process and formation, if any. Financing may be structured through a Community Facilities District, Landscape and Lighting Maintenance District, or other financing structure as determined by the City; or

b. Establish an endowment fund to cover the future maintenance and/or service costs.

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting the application for building permit issuance. If the first building permit is pulled prior to formation of the district, this condition will not apply. If the district has been or is in the process of being formed the Developer must inform the Special Districts Division of its selected financing option (a. or b. above). The option for participating in a special election requires 90 days to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution.

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

135. Commercial (BP) If Land Development, a Division of the Public Works Department, requires this project to supply a funding source necessary to provide for, but not limited to, stormwater utilities services for the continuous operation, remediation and/or replacement, monitoring, systems evaluations and enhancement of on-site facilities and performing annual inspections of the affected areas to ensure compliance with state mandated stormwater regulations, a funding source needs to be established. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option for the National Pollution Discharge Elimination System (NPDES) program when submitting the application for the first building permit issuance (see Land Development's related condition). Participating in a special election the process requires a 90 day period prior to the City's issuance of a building permit. This allows adequate time to be in compliance with the provisions of Article 13D of the California Constitution. (California Health and Safety Code Sections 5473 through 5473.8 (Ord. 708 Section 3.1, 2006) & City of Moreno Valley Municipal Code Title 3, Section 3.50.050.)

136. If a landscaped median is required, for those areas to be maintained by the City and prior to the issuance of the first Building Permit, Planning Division (Community Development Department), Special Districts Division (the Public Works Department) and Transportation Division (the Public Works Department) shall

review and approve the final median, parkway, slope, and/or open space landscape/irrigation plans as designated on the tentative map or in these Conditions of Approval prior to the issuance of the first Building Permit.

137. 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 property owner shall agree to approve the mail ballot proceeding (special election) for either formation of the CFD or annexation into an existing district. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting the application for building permit issuance to determine the requirement for participation. If the first building permit is pulled prior to formation of the district, this condition will not apply. If the condition applies, the special election will require a minimum of 90 days prior to issuance of the first building permit. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution. (California Government Code Section 53313 et. seq.)

138. If a landscaped median is required, 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 commencing from the time all items of work have been completed to the satisfaction of Special Districts staff as per the City of Moreno Valley Public Works Department Landscape Design Guidelines, or until such time as the District accepts maintenance responsibilities.

139. If a landscaped median is required, parkway, median, slope and/or open space landscape areas maintained as part of the City of Moreno Valley Community Facilities District 2014-01 shall be required to have independent utility systems, including but not limited to water, electric, and telephone services. An independent irrigation controller and pedestal will also be required. Combining utility systems with existing or future landscape areas not associated with the City of Moreno Valley Community Facilities District (CFD) landscaping will not be permitted.

140. If a landscaped median is required, inspection fees for the monitoring of landscape installation associated with the City of Moreno Valley maintained parkways/medians are due prior to the required pre-construction meeting. (MC 3.32.040)

141. If a landscaped median is required, plans for parkway, median, slope, and/or open space landscape areas designated in the project's Conditions of Approval for incorporation into a City Coordinated landscape maintenance program, shall be prepared and submitted in accordance with the City of Moreno Valley Public Works Department Landscape Design Guidelines. The guidelines are available on the

City's website at www.moval.org/sd or from the Special Districts Division (951.413.3480 or specialdistricts@moval.org).

142. The ongoing maintenance of any landscaping required to be installed behind the curb shall be the responsibility of the property owner.

143. If a landscaped median is required, plan check fees for review of parkway/median landscape plans for improvements that shall be maintained by the City of Moreno Valley are due upon the first plan submittal. (MC 3.32.040)

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

145. If a landscaped median is required, parkway, open space, and/or median landscaping specified in the project's Conditions of Approval shall be constructed in compliance with the approved landscape plans and completed prior to the issuance of the first Certificate of Occupancy/Building Final for this project.

146. If a landscaped median is required, landscape and irrigation plans for parkway, median, slope, and/or open space landscape areas designated to be maintained by the City 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.

147. MAJOR INFRASTRUCTURE FINANCING DISTRICT. This project has been identified to potentially be included in the formation of a special financing district for the construction and maintenance of major infrastructure improvements which may include but are not limited to thoroughfares, bridges, and certain flood control improvements. The property owner(s) shall participate in such district and pay any special tax, assessment, or fee levied upon the project property for such district. At the time of the public hearing to consider formation of or annexation into the district, the qualified elector(s) will not protest the formation or annexation, but will retain the right to object to any eventual tax/assessment/fee that is not equitable should the financial burden of the tax/assessment/fee not be reasonably proportionate to the benefit the affected property obtains from the improvements to be installed and/or maintained. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting an application for the first building permit to determine whether the development will be subjected to this condition. If subject to the condition, the special election requires a minimum 90 day process in compliance with the provisions of Article 13C of the California Constitution.

148. NEW STREET LIGHT INSTALLATION FEES. Prior to the issuance of the first building permit for this project, the Developer shall pay New Street Light Installation Fees for all applicable Residential and Arterial Street Lights required for this development. Payment shall be made to the City of Moreno Valley and collected by the Land Development Division. Fees are 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 adopted by City Council. The Developer shall provide a copy of the receipt to the Special Districts Division (specialdistricts@moval.org). Any change in the project which may increase the number of street lights to be installed will require payment of additional Advanced Energy fees at the then current fee. Questions may be directed to the Special Districts Division at 951.413.3480 or specialdistricts@moval.org.

149. This project is conditioned to provide a funding source for the following special financing program(s):

a. Street Lighting Services for capital improvements, energy charges, and maintenance.

b. If a landscaped median is required, Landscape Maintenance Services for parkway, open space, and/or median landscaping on Perris Blvd.

The Developer's responsibility is to provide a funding source for the capital improvements and the continued maintenance. The Developer shall satisfy this condition with one of the options below.

i. Participate in a special election (mail ballot proceeding) and pay all associated costs of the special election and formation, 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

ii. Establish a Property Owner's Association (POA) or Home Owner's Association (HOA) which will be responsible for any and all operation and maintenance costs

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option when submitting the application for building permit issuance. The option for participating in a special election requires approximately 90 days to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution.

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

150. Street Light Authorization forms for all street lights that are conditioned to be installed as part of this project must be submitted to the Special Districts Division for approval, prior to street light installation. The Street Light Authorization form can be obtained from the utility company providing electric service to the project, either Moreno Valley Utility or Southern California Edison. For questions, contact the Special Districts Division at 951.413.3480 or specialdistricts@moval.org.

Transportation Engineering Division

151. Prior to issuance of a construction permit, construction traffic control plans prepared by a qualified, registered Civil or Traffic engineer may be required for plan approval or as required by the City Traffic Engineer.

152. All project 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 Plans No. MVSI-112A~D-0 for commercial driveway approaches.

    Driveway on Perris Boulevard shall be restricted to right-in and right-out movements only by raised median installation.

153. All proposed on-site traffic signing and striping should be accordance with the latest California Manual on Uniform Traffic Control Devices (CAMUTCD).

154. Prior to final approval of any landscaping or monument sign plans, the project plans shall demonstrate that sight distance at the project driveways conforms to City Standard Plan No. MVSI-164A, B, C-0.

155. Sight distance at the proposed roadways and driveways shall conform to City of Moreno Valley Standard No. MVSI-164A,B,C-0 at the time of preparation of final grading, landscape, and street improvement plans.

156. Prior to issuance of building permits, signing and striping plans shall be prepared by a registered, qualified civil or electrical engineer and submitted to the City for the required offsite improvements on Dracaea Avenue, Perris Boulevard, and Atwood Avenue.

157. Prior to issuance of a certificate of occupancy, a bus bay shall be installed per City of Moreno Valley Standard MVSI-161-0 on the east side of Perris Boulevard north of Dracaea Avenue, or as approved by the City Engineer.

158. Prior to issuance of certificate of occupancy, communication conduit shall be installed along project frontage on Perris Boulevard per City Standard Plan No. MVSI-186-0. Any improvements undertaken by this project shall be consistent with

the City's standards for this facility.

159. Prior to issuance of a certificate of occupancy, median improvements on Perris Boulevard shall be installed per the approved plans and accepted by the City Engineer.

160. Prior to issuance of a certificate of occupancy, all signing and striping improvements on Dracaea Avenue and Perris Boulevard shall be installed per the approved plans and accepted by the City Engineer.

161. A bus turnout is required along the project frontage per MVSI-161-0. Bus turn-out shall be installed on the east side of Perris Boulevard, along the property frontage.

162. Applicant shall modify geometrics at Perris Boulevard and Dracaea Avenue intersection to provide for eastbound and westbound left-turn lanes.

163. Applicant shall construct raised median on Perris Boulevard from Dracaea Avenue to north of intersection with Atwood Avenue.

a) At Atwood Avenue and Perris Boulevard intersection, median shall provide for full access north and south left-turn, through, and right-turn movements. The northbound and southbound left-turn lanes would have approximately 100 feet of queuing space plus taper.

b) Atwood Avenue should be restricted to right-in/right-out east and westbound movements with a directional median opening on Perris Boulevard.

c) Southbound left-turn lane at Perris Boulevard intersection with Dracaea Avenue shall provide at least 125 feet of queueing space plus taper.

164. Prior to issuance of a certificate of occupancy, fair share payments for improvements identified on the Traffic Study shall be paid:

a) Perris Boulevard and Cottonwood Avenue Intersection.

b) Perris Boulevard and Eucalyptus Avenue Intersection.

NOTES

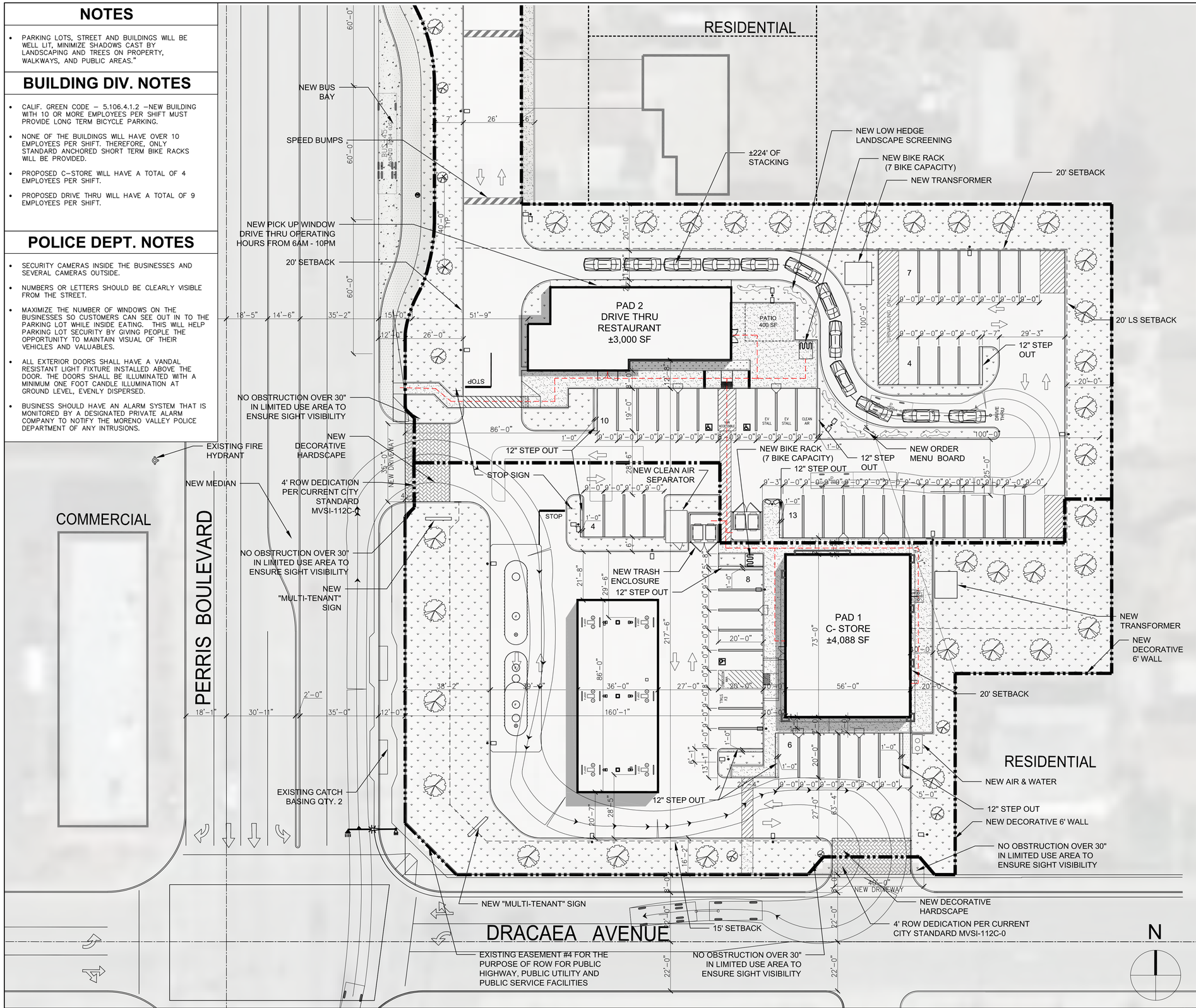
- PARKING LOTS, STREET AND BUILDINGS WILL BE WELL LIT, MINIMIZE SHADOWS CAST BY LANDSCAPING AND TREES ON PROPERTY, WALKWAYS, AND PUBLIC AREAS."

BUILDING DIV. NOTES

- CALIF. GREEN CODE – 5.106.4.1.2 –NEW BUILDING WITH 10 OR MORE EMPLOYEES PER SHIFT MUST PROVIDE LONG TERM BICYCLE PARKING.
- NONE OF THE BUILDINGS WILL HAVE OVER 10 EMPLOYEES PER SHIFT. THEREFORE, ONLY STANDARD ANCHORED SHORT TERM BIKE RACKS WILL BE PROVIDED.
- PROPOSED C–STORE WILL HAVE A TOTAL OF 4 EMPLOYEES PER SHIFT.
- PROPOSED DRIVE THRU WILL HAVE A TOTAL OF 9 EMPLOYEES PER SHIFT.

POLICE DEPT. NOTES

- SECURITY CAMERAS INSIDE THE BUSINESSES AND SEVERAL CAMERAS OUTSIDE.
- NUMBERS OR LETTERS SHOULD BE CLEARLY VISIBLE FROM THE STREET.
- MAXIMIZE THE NUMBER OF WINDOWS ON THE BUSINESSES SO CUSTOMERS CAN SEE OUT IN TO THE PARKING LOT WHILE INSIDE EATING. THIS WILL HELP PARKING LOT SECURITY BY GIVING PEOPLE THE OPPORTUNITY TO MAINTAIN VISUAL OF THEIR VEHICLES AND VALUABLES.
- ALL EXTERIOR DOORS SHALL HAVE A VANDAL RESISTANT LIGHT FIXTURE INSTALLED ABOVE THE DOOR. THE DOORS SHALL BE ILLUMINATED WITH A MINIMUM ONE FOOT CANDLE ILLUMINATION AT GROUND LEVEL, EVENLY DISPERSED.
- BUSINESS SHOULD HAVE AN ALARM SYSTEM THAT IS MONITORED BY A DESIGNATED PRIVATE ALARM COMPANY TO NOTIFY THE MORENO VALLEY POLICE DEPARTMENT OF ANY INTRUSIONS.



SITE PLAN 1"=20' 1

SITE DATA

PROJECT DATA	
ASSESSOR'S PARCEL NUMBER:	479–120–042, 027, 029, 043
ADDRESS:	NEC PERRIS BLVD. & DRACAEA AVE. MORENO VALLEY, CA.92553
DESCRIPTION:	NEW CONSTRUCTION
SPRINKLED:	N
CONSTRUCTION TYPE:	V–B
EXISTING ZONING:	(CC) OFFICE COMMERCIAL
PROPOSED ZONING:	(CC) COMMUNITY COMMERCIAL
PROPOSED PLAN LAND USE:	EXISTING: RESIDENTIAL OFFICE PROPOSED: COMMERCIAL
BUILDING DATA	
SITE AREA:	±101,934 (2.30 AC)
DRIVE THRU SITE AREA:	±56,393 (1.30 AC)
C–STORE SITE AREA:	±45,554 (1.04 AC)
PROPOSED C–STORE AREA:	±4,088 SF
CANOPY AREA	±3,096 SF
PROPOSED DRIVE THRU REST. AREA:	±3,000 SF
ALLOWABLE BUILDING HEIGHT:	30' FT
LOT COVERAGE:	±7,088 SF (7.0 %)
LANDSCAPE PROVIDED:	±27,600 SF (26.5%)
LANDSCAPE SETBACKS	
FRONT	20' FT
REAR	20' FT
SIDE	15' FT
SIDE	20' FT
BUILDING SETBACKS	
FRONT	10' FT
REAR	20' FT (WITHIN BUILDING UNDER 30')
SIDE	15' FT
SIDE	20' FT
C–STORE PARKING REQUIRED:	21 STALLS 19 (1/225 SF OF 4,088 SF) 2 FOR SERVICE STATION
DRIVE THRU REST. REQUIRED:	34 STALLS 3,000 SF @ 1/100 SF 400 SF @ 1/100 SF
C–STORE PARKING PROVIDED:	21 TOTAL STALLS
DRIVE THRU REST. PARKING PROVIDED:	34 TOTAL STALLS
TOTAL PARKING PROVIDED:	55 STALLS

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN IS SITUATED IN THE CITY OF MORENO VALLEY THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS

PARCEL 1:

THE WESTERLY 95 FEET OF LOT 414 OF EDGEMONT GARDENS, AS SHOWN BY MAP ON FILE IN BOOK 15, PAGE 90 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 2:

LOT 415 OF EDGEMONT GARDENS, AS SHOWN BY MAP ON FILE IN BOOK 15, PAGE 90 OF RECORDS OF RIVERSIDE COUNTY, CALIFORNIA. EXCEPTING THEREFROM THE WESTERLY 50 FEET AS DEEDED TO THE COUNTY OF RIVERSIDE BY DEED, RECORDED JANUARY 31, 1972 AS INSTRUMENT NO. 12276 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

APN: 479-120-042 AND 479-120A-029

PARCEL 3:

LOTS 413 AND 414 OF EDGEMONT GARDENS, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 15, PAGE 90 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPTING THEREFROM THE EASTERLY 70 FEET OF THE SOUTHERLY 90 FEET OF SAID LOT 413;

ALSO EXCEPTING THEREFROM THE WESTERLY 95.00 FEET OF SAID LOT 414.

APN: 479-120-027

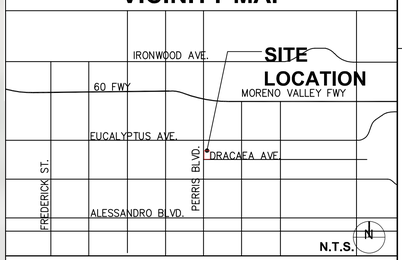
PARCEL 4:

LOT 406 OF EDGEMONT GARDENS, AS SHOWN BY MAP ON FILE IN BOOK 15, PAGE 90 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

EXCEPTING THEREFROM THE WESTERLY 50 FEET AS CONVEYED TO THE COUNTY OF RIVERSIDE BY DEED RECORDED JANUARY 31, 1972, AS INSTRUMENT NO. 12275, OFFICIAL RECORDS.

APN: 479-120-043-8

VICINITY MAP



LEGEND

- PROPERTY LINE
- LANDSCAPE SETBACK
- ADA PATH OF TRAVEL
- LANDSCAPE AREA
- CONCRETE PAVING/ SIDEWALK
- NEW TREE
- NEW PARKING LIGHTS

Rev. #	Date	Description

CADENCE CAPITAL INVESTMENTS LLC
6400 FIDDLERS GREEN CIR, STE. 1820
GREENWOOD VILLAGE, CO 80111

PERRIS BLVD. & DRACAEA AVE.
MORENO VALLEY, CA 92553

SITE PLAN

CADENCE

Job #:	M - 1011
Date:	09/01/20
Scale:	AS NOTED
Drawn By:	SPD

SP-14

LEGEND

- PROPERTY LINE
- CIVIL LIMIT OF WORK LINE
- GB — GRADE BREAK LINE
- R — RIDGE LINE
- FLOW LINE
- STORM DRAIN LINE
- 111.50 TC / 111.00 FS — PROPOSED SPOT GRADE
- (111.50 TC) / (111.00 FS) — EXISTING SPOT GRADE
- 3.0% — PROPOSED FLOW (DIRECTION AND SLOPE)
- ASPHALT
- HEAVY DUTY CONCRETE PAVEMENT
- PROPOSED LANDSCAPING
- TRUNCATED DOMES
- STANDARD DUTY CONCRETE SIDEWALK
- BIORETENTION AREA

GRADING NOTES

1. CONSTRUCT CONCRETE CURB
2. CONSTRUCT STANDARD DUTY CONCRETE SIDEWALK
3. PROPOSED LANDSCAPING
4. CONSTRUCT ASPHALT CONCRETE PAVEMENT
5. CONSTRUCT ACCESSIBLE CURB RAMP WITH DETECTABLE WARNINGS
6. INSTALL STANDARD 90° PARKING STALL
7. INSTALL 90° ACCESSIBLE PARKING STALL
8. INSTALL BIKE RACK/LONG TERM BIKE LOCKER PER ARCHITECTURAL PLANS

DRAINAGE NOTES

- D1 PROPOSED 2-FT CHANNEL DRAIN
- D2 CONSTRUCT 48" NYLOPLAST MANHOLE WITH WEIR AND ORIFICE OR APPROVED EQUAL
- D3 INSTALL STORM DRAIN LINE. SIZE, SLOPE AND MATERIAL PER PLAN.
- D4 CONNECT TO EXISTING 60" RCP STORM DRAIN MAIN
- D5 CONSTRUCT WQMP RETENTION AREA PER DETAIL 1, SHEET C3.0
- D6 CONSTRUCT STANDARD 48" MANHOLE. INVERTS PER PLAN.

ESTIMATED EARTHWORK QUANTITIES

CUT:	100 CY
FILL:	2300 CY
NET:	2200 CY (FILL)

NOTE: THE ABOVE QUANTITIES ARE APPROXIMATE IN PLACE VOLUMES CALCULATED FROM THE EXISTING GROUND TO THE PROPOSED FINISHED GRADE. EXISTING GROUND IS DEFINED BY THE CONTOURS AND SPOT GRADES ON THE BASE SURVEY. PROPOSED FINISHED GRADE IS DEFINED AS THE FINAL GRADE AS INDICATED ON THE GRADING PLAN(S).

THE EARTHWORK QUANTITIES ABOVE ARE FOR PERMIT PURPOSES ONLY. THEY HAVE NOT BEEN FACTORED TO ACCOUNT FOR CHANGES IN VOLUME DUE TO BULKING, CLEARING AND GRUBBING, SHRINKAGE, OVER- EXCAVATION AND RE-COMPACTION, AND CONSTRUCTION METHODS. NOR DO THEY ACCOUNT FOR THE THICKNESS OF PAVEMENT SECTIONS, FOOTINGS, SLABS, REUSE OF PULVERIZED MATERIALS THAT WILL UNDERLIE NEW PAVEMENTS, ETC. THE CONTRACTOR SHALL RELY ON THEIR OWN EARTHWORK ESTIMATES FOR BIDDING PURPOSES.

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN IS SITUATED IN THE CITY OF MORENO VALLEY THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:
PARCEL 1: THE WESTERLY 95 FEET OF LOT 414 OF EDGEMONT GARDENS, AS SHOWN BY MAP ON FILE IN BOOK 15, PAGE 90 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.
PARCEL 2: LOT 415 OF EDGEMONT GARDENS, AS SHOWN BY MAP ON FILE IN BOOK 15, PAGE 90 OF RECORDS OF RIVERSIDE COUNTY, CALIFORNIA. EXCEPTING THEREFROM THE WESTERLY 50 FEET AS DEEDED TO THE COUNTY OF RIVERSIDE BY DEED, RECORDED JANUARY 31, 1972 AS INSTRUMENT NO. 12276 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA. APN: 479-120-042 AND 479-120A-029
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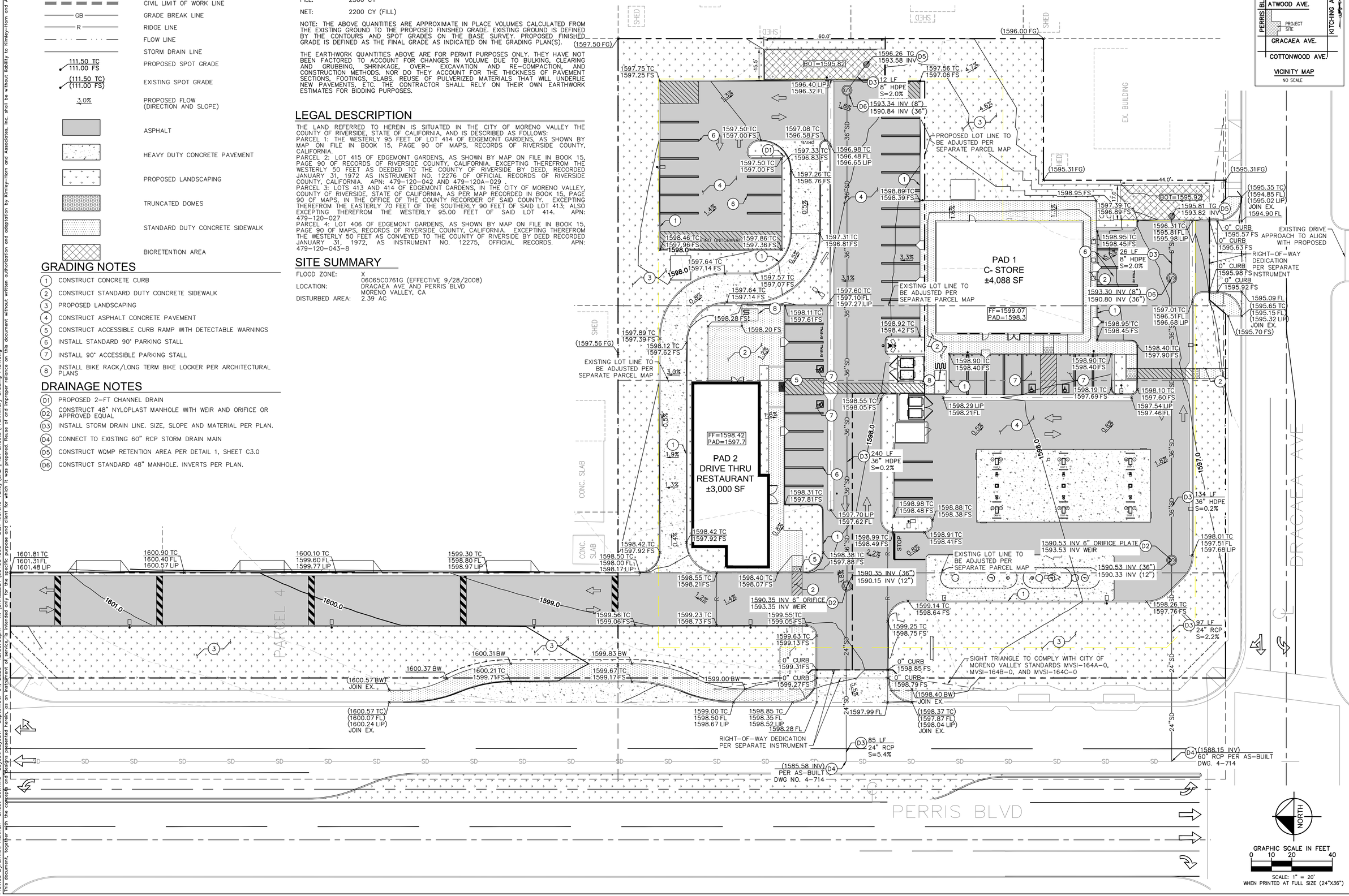
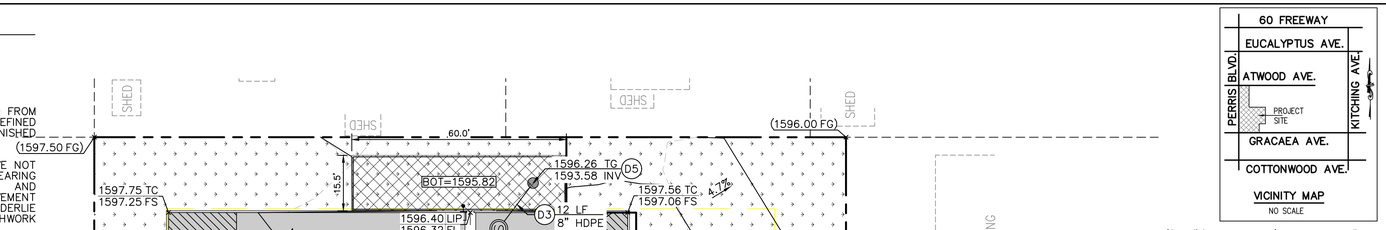
SITE SUMMARY

FLOOD ZONE:	X
	06065C0761G (EFFECTIVE 9/28/2008)
LOCATION:	DRACAEA AVE AND PERRIS BLVD
	MORENO VALLEY, CA
DISTURBED AREA:	2.39 AC





No.	REVISIONS	DATE	BY

Kimley»Horn
© 2019 KIMLEY-HORN AND ASSOCIATES, INC.
765 THE CITY DRIVE, SUITE 200, ORANGE, CA 92868
PHONE: 714-939-1030 FAX: 714-938-9488
WWW.KIMLEY-HORN.COM

REGISTERED PROFESSIONAL ENGINEER TYLER NOT FOR CONSTRUCTION CIVIL STATE OF CALIFORNIA

DATE: 9/1/20

SCALE	AS SHOWN		
DESIGNED BY	HS	BH	TH
DRAWN BY	BH	TH	
CHECKED BY	TH		

CADENCE CAPITAL INVESTMENTS
6400 FIDDLERS GREEN CIR. STE 1820
GREEN VILLAGE, CO 80111

PRELIMINARY GRADING PLAN
PERRIS BLVD & DRACEAE AVE.
MORENO VALLEY, CA 92553

SHEET NUMBER
C1.0

Attachment: Project Plans (4191 : Conditional Use Permits for a Drive Through Restaurant, Fueling Station and Convenience Store)

PLANT PALETTE

Symbol	Botanical Name	Common Name	WUCOLS Region 4
TREES			
	Cercidium 'Desert Museum'	Palo Verde	Low
	Lagerstroemia i. 'Natchez'	Crape Myrtle	Mod
	Pinus canariensis	Canary Island Pine	Low
	Tristania conferta	Brisbane Box	Mod
	Geijera parviflora	Australian Willow	Low
	Ulmus parvifolia 'Drake'	Evergreen Chinese Elm	Low
SHRUBS/ GROUNDCOVERS			
	Acacia r. 'Lowboy'	Prostrate Acacia	Low
	Agave species	Agave	Low
	Aloe species	Aloe	Low
	Anigozanthos flavidus	Kangaroo Paw	Low
	Baccharis p. 'Twin Peaks'	Coyote Bush	Low
	Callistemon v. 'Little John'	Dwarf Bottlebrush	Low
	Cistus purpureus	Orchid Rock Rose	Low
	Dianella t. 'Variegata'	Variegated Flax Lily	Mod
	Dodonaea viscosa	Purple Hopseed Bush	Mod
	Grevillea spp.	Grevillea	Low
	Hesperaloe parviflora	Red Yucca	Low
	Lantana 'New Gold'	Trailing Lantana	Low
	Lavandula 'Meerlo'	Meerlo Lavender	Low
	Leucophyllum f. 'Compacta'	Texas Ranger	Low
	Myoporum parvifolium	Myoporum	Low
	Rosmarinus o. 'Huntington Carpet'	Creeping Rosemary	Low
	Russellia equisetiformis	California fuschia	Low
	Salvia clevelandii	Cleveland Sage	Low
	Salvia gregii 'Flame'	Furman's Red Autumn Sage	Low
	Westringia fruticosa	Coast Rosemary	Low
	Muhlenbergia capilaris	Pink Muhly	Low
	Rhamnus californica	Coffeeberry	Low

NOTES:

PLANT MATERIAL NOT LISTED MAY BE USED, SUBJECT TO APPROVAL BY THE CITY.

ALL LANDSCAPE PLANS AND INSTALLATIONS SHALL ADHERE TO CITY DESIGN GUIDELINES, CODES AND REGULATIONS.

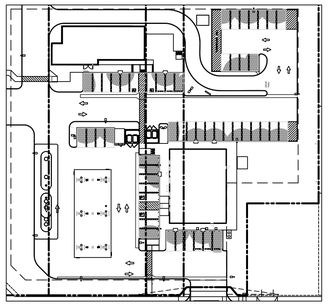
ALL LANDSCAPE AREAS SHALL RECEIVE AUTOMATIC IRRIGATION SYSTEM.

ALL LANDSCAPE INSTALLATION SHALL BE PERMANENTLY MAINTAINED.

SITE AREA CALCULATIONS:

TOTAL SITE AREA:	104,108 S.F.
TOTAL PARKING AREA:	9,250 S.F.
TOTAL LANDSCAPE AREA:	36,756 S.F. (35%)

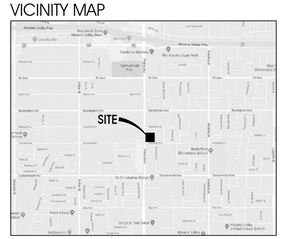
PARKING SHADING PLAN



TREE SHADING CALCULATIONS:

TOTAL PARKING AREA:	9,250 S.F.
TOTAL PARKING SHADED AREA:	5,145 S.F. (56%)

VICINITY MAP



CONCEPTUAL LANDSCAPE PLAN

PERRIS BLVD & DRACAEA AVE.
MORENO VALLEY, CA 92553

CADENCE

0' 15' 30' 60' 90'
SCALE: 1"=30'
CDPC PROJECT NO. 19030

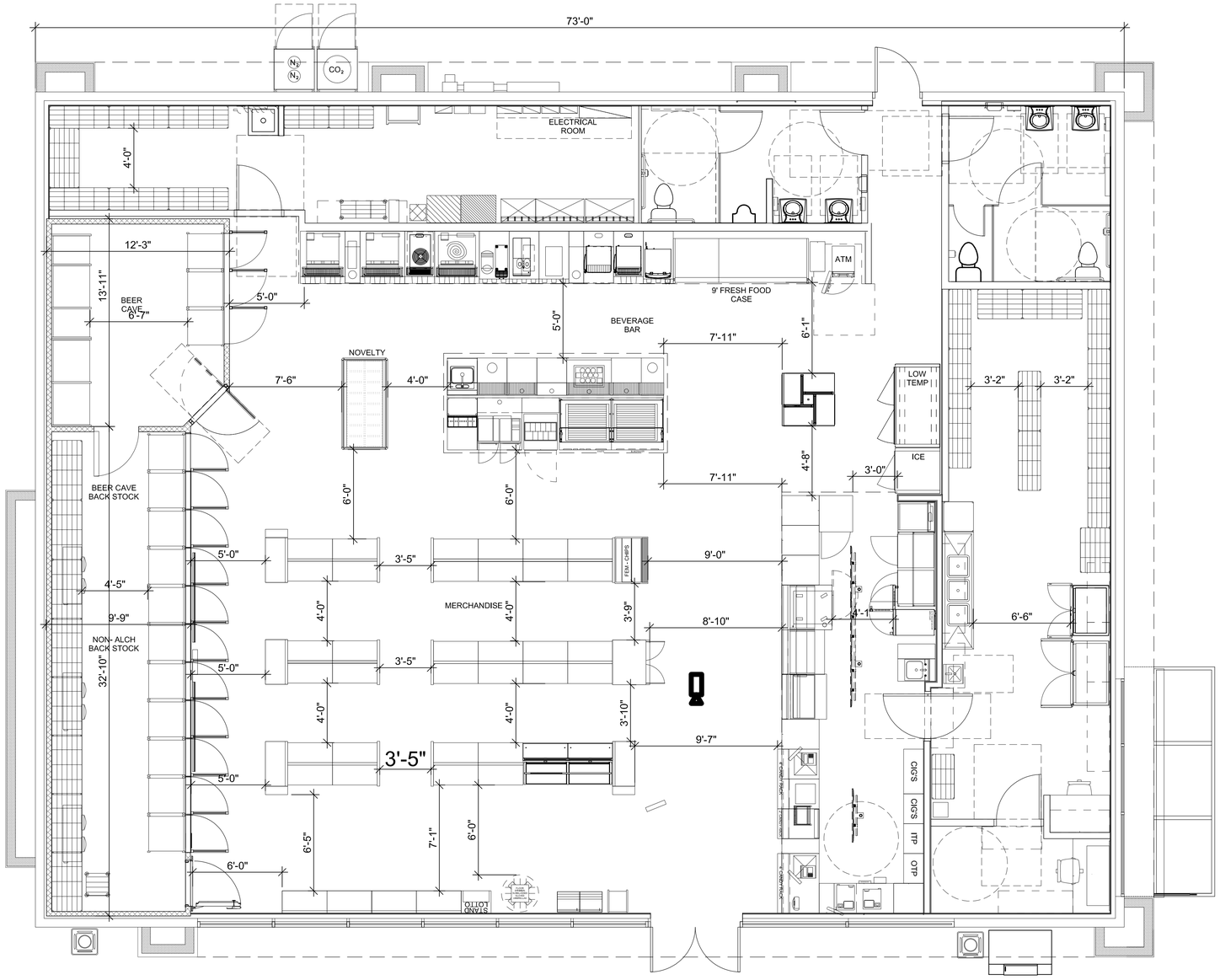
NORTH

September 01, 2020

conceptual design & planning company
Corporate Office
3195-C Airport Loop Drive
Studio One
Costa Mesa, CA 92626
T: 949.399.0870
www.cdpcinc.com
COSTA MESA • ATASCADERO • SAN JOSE

L-1

1 OF 1



LAYOUT INFORMATION

ROLLER GRILLS	2 (SELF SERVE)
SANDWICH CASE	9'
ALC VAULT DRS	3
NON-ALC VAULT DRS	11
LOW TEMP DOORS	2
ICE MERCH. DOORS	1
NOVELTY CASE	1
BAKERY CASE	1 (LG)
SLURPEE BARRELS	8

GONDOLA UNITS (60"H)	36
END CAPS (60"H)	04
POWER WINGS	(03) - NOT IN TOTAL
LOW WALLS (36"H)	04
HIGH WALLS (72"H)	00
TOTAL	44

TOTAL SQ FT	= 4088 SF
SALES FLOOR AREA	= 2308 SF

GAS: YES LIQUOR: NO
BEER: YES WINE: YES

OCCUPANCY LOAD (>49) = 42
TRAVEL DISTANCE (<200) = 79'
COMMON PATH OF TRAVEL (<75) = 48'
RESTROOMS REQUIRED = 2
EXITS REQUIRED = 2

OVERHEAD SHELVES	= 50 FT
FLOOR SHELVES	= 80 FT

WALL TYPE LEGEND

EXISTING WALL
EXISTING COLUMN
NEW WALL
NEW PARTIAL HEIGHT WALL
NEW COOLER WALL

OCCUPANCY CALCULATION

MERCHANDISE	2004 SF	/ 60	=	34 PEOPLE
KITCHEN / SALES	304 SF	/ 200	=	2 PEOPLE
STORAGE/ BACK ROOM	1319 SF	/ 300	=	5 PEOPLE
OFFICE	91 SF	/ 100	=	1 PERSON
RESTROOM	370 SF	/ N/A	=	0 PEOPLE
		TOTAL	=	42 PEOPLE

Rev. #	Date	Description

CADENCE CAPITAL INVESTMENTS LLC
6400 FIDDLERS GREEN CIR. STE. 1820
GREENWOOD VILLAGE, CO 80111

PERRIS BLVD. & DRACAEA AVE.
MORENO VALLEY, CA 92553

INTERIOR FLOOR PLAN

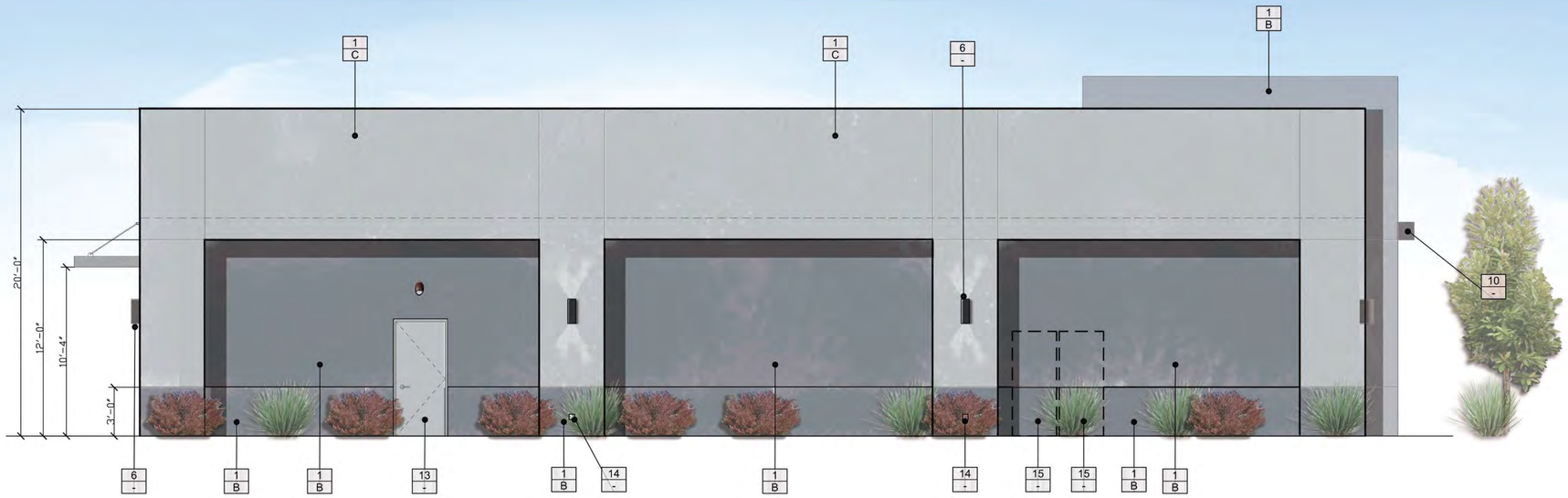
CADENCE

Job #:	M - 1011
Date:	08/21/19
Scale:	AS NOTED
Drawn By:	SPD

IFP

INTERIOR FLOOR PLAN 1/4"=1'-0" 1

WEST ELEVATION 1/4"=1'-0" 1



EAST ELEVATION 1/4"=1'-0" 2

KEYED NOTES

1 – EXTERIOR STUCCO TO BE PAINTED
2 – EMERGENCY EGRESS LIGHT
3 – PREFINISHED METAL CANOPY
4 – STREET ADDRESS WHITE VINYL
5 – WINDOW STRIPING AT TOP OF MULLION
6 – EXTERIOR WALL CYLINDER – KICHLER – 9264BA – BRONZE
7 – SERVICE & SECONDARY EGRESS DOOR
8 – SPANDREL STOREFRONT
9 – NOT USED
10 – EXTERIOR WALL PACK LIGHTS
11 – SIGNAGE – BACKLIT CHANNEL LETTERS
12 – WINDOW STRIPING
13 – EMERGENCY EGRESS DOOR
14 – INTERNAL DOWNSPOUT FOR PRIMARY DRAIN
15 – EXTERIOR EQUIPMENT

NOTES

- ALL EXTERIOR DOORS SHALL HAVE A VANDAL RESISTANT LIGHT FIXTURE INSTALLED ABOVE THE DOOR. THE DOORS SHALL BE ILLUMINATED WITH A MINIMUM 1 FC ILLUMINATION AT GROUND LEVEL, EVENLY DISPERSED."
- NUMBER AND/OR LETTERS WILL BE CLEARLY VISIBLE FROM THE STREET."

EXTERIOR COLORS & FINISHES

A – CLADDING/SIDING
FIBERON – WARM SIENA

B – SHERWIN WILLIAMS PAINT
#SW 6256 – SERIOUS GRAY

C – SHERWIN WILLIAMS PAINT
SW 6254 – LAZY GRAY

D – ANODIZED ALUMINUM STOREFRONT SYSTEM
#40 DARK BRONZE AA–M10C21A44

E – SHERWIN WILLIAMS PAINT
SW 7076 – CYBER SPACE

FIBERON – WARM SIENA

SHERWIN WILLIAMS PAINT
#SW 6256 – SERIOUS GRAY

SHERWIN WILLIAMS PAINT
#SW 6254 – LAZY GRAY

SHERWIN WILLIAMS PAINT
#SW 7076 – CYBER SPACE

Rev. #	Date	Description

CADENCE CAPITAL INVESTMENTS LLC
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GREEN VILLAGE, CO 80111

PERRIS BLVD. & DRACAEA AVE.
MORENO VALLEY, CA 92553

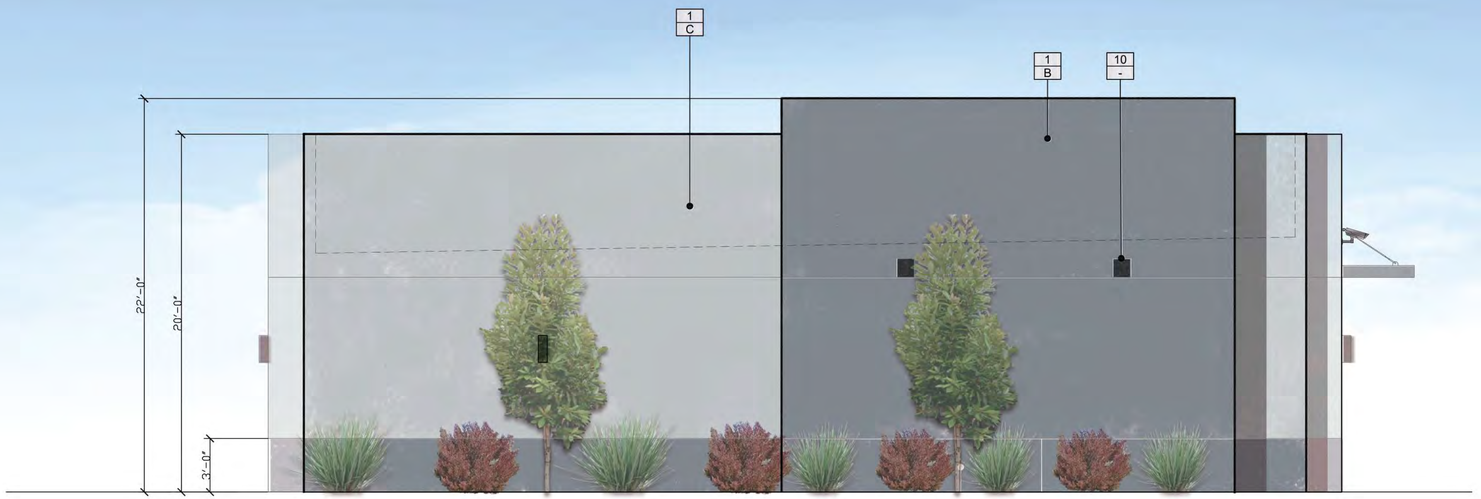
EXTERIOR ELEVATION

CADENCE

Job #:	M - 1011
Scale:	06/07/19
Date:	AS NOTED
Drawn By:	SPD
Page Number:	4

ELEV

SOUTH ELEVATION 1/4"=1'-0" 1



NORTH ELEVATION 1/4"=1'-0" 2

KEYED NOTES

1 –	EXTERIOR STUCCO TO BE PAINTED
2 –	EMERGENCY EGRESS LIGHT
3 –	PREFINISHED METAL CANOPY
4 –	STREET ADDRESS WHITE VINYL
5 –	WINDOW STRIPING AT TOP OF MULLION
6 –	EXTERIOR WALL CYLINDER – KICHLER – 9264BA – BRONZE
7 –	SERVICE & SECONDARY EGRESS DOOR
8 –	SPANDREL STOREFRONT
9 –	NOT USED
10 –	EXTERIOR WALL PACK LIGHTS
11 –	SIGNAGE – BACKLIT CHANNEL LETTERS
12 –	WINDOW STRIPING
13 –	EMERGENCY EGRESS DOOR
14 –	INTERNAL DOWNSPOUT FOR PRIMARY DRAIN

NOTES

- ALL EXTERIOR DOORS SHALL HAVE A VANDAL RESISTANT LIGHT FIXTURE INSTALLED ABOVE THE DOOR. THE DOORS SHALL BE ILLUMINATED WITH A MINIMUM 1 FC ILLUMINATION AT GROUND LEVEL, EVENLY DISPERSED."
- NUMBER AND/OR LETTERS WILL BE CLEARLY VISIBLE FROM THE STREET."

EXTERIOR COLORS & FINISHES

– A	CLADDING/SIDING FIBERON – WARM SIENA
– B	SHERWIN WILLIAMS PAINT #SW 6256 – SERIOUS GRAY
– C	SHERWIN WILLIAMS PAINT # SW 6254 – LAZY GRAY
– D	ANODIZED ALUMINUM STOREFRONT SYSTEM #40 DARK BRONZE AA–M10C21A44
– E	SHERWIN WILLIAMS PAINT # SW 7076 – CYBER SPACE

FIBERON – WARM SIENA

SHERWIN WILLIAMS PAINT
#SW 6256 – SERIOUS GRAY

SHERWIN WILLIAMS PAINT
#SW 6254 – LAZY GRAY

SHERWIN WILLIAMS PAINT
#SW 7076 – CYBER SPACE

Rev. #	Date	Description

CADENCE CAPITAL INVESTMENTS LLC
6400 FIDDLERS GREEN CIR. STE. 1820
GREEN VILLAGE, CO 80111

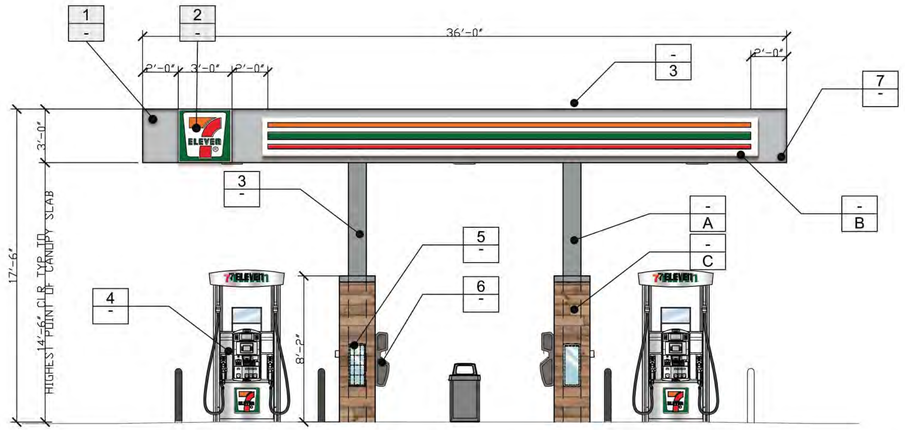
PERRIS BLVD. & DRACAEA AVE.
MORENO VALLEY, CA 92553

EXTERIOR ELEVATION

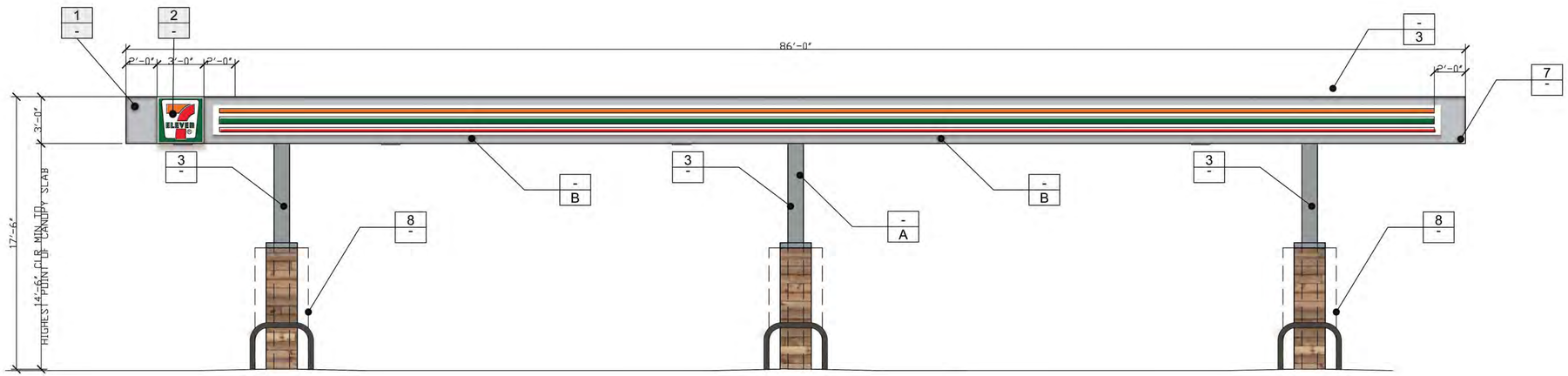
CADENCE

Job #:	M - 1011
Scale:	06/07/19
Date:	AS NOTED
Drawn By:	SPD
Page Number:	5

ELEV



NORTH ELEVATION 1/4"=1'-0" (1)



WEST ELEVATION 1/4"=1'-0" (2)

KEYED NOTES

1. ACM CANOPY FASCIA WITH TATEYAMA IMAGE TRI-STRIPE
2. ILLUMINATED LOGO
3. CANOPY COLUMN
4. GAS DISPENSER
5. FIRE EXTINGUISHER-MOUNT MAX. 48" FROM GRADE
6. WASH BUCKET-MOUNT MAX. 48" FROM GRADE
7. OVERFLOW PROTECTION AS REQUIRED
8. GAS DISPENSER OUTLINE

EXTERIOR COLORS & FINISHES

- SHERWIN WILLIAMS PAINT # SW 9162 – AFRICAN GRAY
- SHERWIN WILLIAMS PAINT # SW 6254 – LAZY GRAY
- CLADDING/SIDING FIBERON – WARM SIENA

SHERWIN WILLIAMS PAINT # SW 9162 – AFRICAN GRAY

SHERWIN WILLIAMS PAINT # SW 6254 – LAZY GRAY

FIBERON – WARM SIENA

Rev. #	Date	Description

CADENCE CAPITAL INVESTMENTS LLC
6400 FIDDLERS GREEN CIR. STE. 1820
GREEN VILLAGE, CO 80111

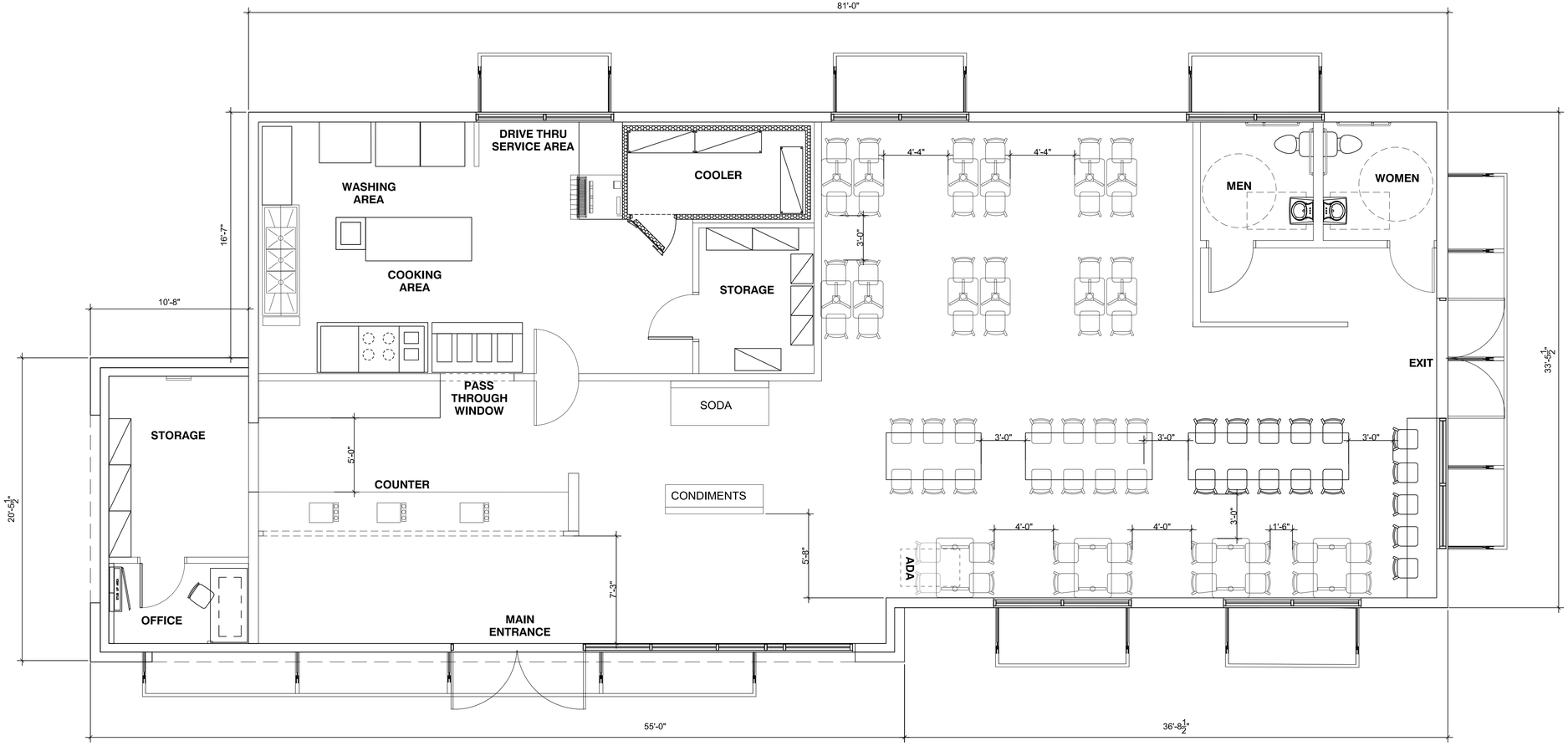
PERRIS BLVD. & DRACAEA AVE.
MORENO VALLEY, CA 92553

EXTERIOR ELEVATION FUEL- COLOR

CADENCE

Job #:	M - 1011
Scale:	06/07/19
Date:	AS NOTED
Drawn By:	SPD
Checked By:	

ELEV



INTERIOR FLOOR PLAN (DRIVE THRU RESTAURANT)

1/4"=1'-0"

1

Rev. #	Date	Description

CADENCE CAPITAL INVESTMENTS LLC
6400 FIDDLERS GREEN CIR. STE. 1820
GREEN VILLAGE, CO 80111

PERRIS BLVD. & DRACAEA AVE.
MORENO VALLEY, CA 92553

INTERIOR FLOOR PLAN (DT RESTAURANT)

CADENCE

Job #:	M - 1011
Scale:	6/07/19
Date:	AS NOTED
Drawn By:	SPD
Checked By:	

IFP

SOUTH ELEVATION 1/4"=1'-0" (1)

NORTH ELEVATION 1/4"=1'-0" (2)

KEYED NOTES

1 – EXTERIOR STUCCO TO BE PAINTED

2 – PREFINISHED METAL CANOPY

3 – EXTERIOR WALL CYLINDER – KICHLER – 9264BA – BRONZE

4 – SPANDREL STOREFRONT

5 – CITY SCAPES INLINE WALL MOUNTED TRELLIS – CITY BROWN

6 – EXTERIOR WALL PACK LIGHTS

7 – DRIVE THRU PICK UP WINDOW

NOTES

- ALL EXTERIOR DOORS SHALL HAVE A VANDAL RESISTANT LIGHT FIXTURE INSTALLED ABOVE THE DOOR. THE DOORS SHALL BE ILLUMINATED WITH A MINIMUM 1 FC ILLUMINATION AT GROUND LEVEL, EVENLY DISPERSED."
- NUMBER AND/OR LETTERS WILL BE CLEARLY VISIBLE FROM THE STREET."

EXTERIOR COLORS & FINISHES

A – CLADDING/SIDING
FIBERON – WARM SIENA

B – SHERWIN WILLIAMS PAINT
#SW 6256 – SERIOUS GRAY

C – SHERWIN WILLIAMS PAINT
SW 6254 – LAZY GRAY

D – ANODIZED ALUMINUM STOREFRONT SYSTEM
#40 DARK BRONZE AA-M10C21A44

E – SHERWIN WILLIAMS PAINT
SW 7076 – CYBER SPACE

FIBERON – WARM SIENA

SHERWIN WILLIAMS PAINT
#SW 6256 – SERIOUS GRAY

SHERWIN WILLIAMS PAINT
#SW 6254 – LAZY GRAY

SHERWIN WILLIAMS PAINT
#SW 7076 – CYBER SPACE

Rev. #	Date	Description

CADENCE CAPITAL INVESTMENTS LLC
6400 FIDDLERS GREEN CIR, STE. 1820
GREEN VILLAGE, CO 80111

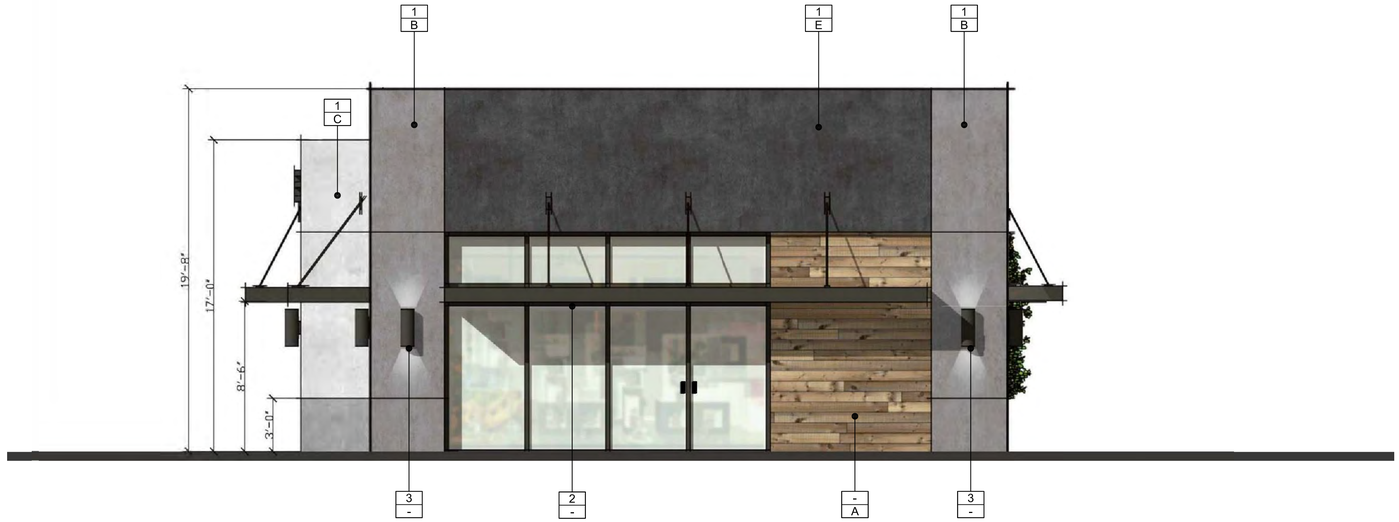
PERRIS BLVD. & DRACAEA AVE.
MORENO VALLEY, CA 92553

EXTERIOR ELEVATION (DT RESTAURANT)

CADENCE

Job #:	M - 1011
Scale:	06/07/19
Date:	AS NOTED
Drawn By:	SPD
Page Number:	4

ELEV



EAST ELEVATION 1/4"=1'-0" 1

WEST ELEVATION 1/4"=1'-0" 2

KEYED NOTES

1 – EXTERIOR STUCCO TO BE PAINTED

2 – PREFINISHED METAL CANOPY

3 – EXTERIOR WALL CYLINDER – KICHLER – 9264BA – BRONZE

4 – SPANDREL STOREFRONT

5 – CITY SCAPES INLINE WALL MOUNTED TRELLIS – CITY BROWN

6 – EXTERIOR WALL PACK LIGHTS

7 – DRIVE THRU PICK UP WINDOW

NOTES

- ALL EXTERIOR DOORS SHALL HAVE A VANDAL RESISTANT LIGHT FIXTURE INSTALLED ABOVE THE DOOR. THE DOORS SHALL BE ILLUMINATED WITH A MINIMUM 1 FC ILLUMINATION AT GROUND LEVEL, EVENLY DISPERSED."
- NUMBER AND/OR LETTERS WILL BE CLEARLY VISIBLE FROM THE STREET."

EXTERIOR COLORS & FINISHES

– A – CLADDING/SIDING
FIBERON – WARM SIENA

– B – SHERWIN WILLIAMS PAINT
#SW 6256 – SERIOUS GRAY

– C – SHERWIN WILLIAMS PAINT
SW 6254 – LAZY GRAY

– D – ANODIZED ALUMINUM STOREFRONT SYSTEM
#40 DARK BRONZE AA-M10C21A44

– E – SHERWIN WILLIAMS PAINT
SW 7076 – CYBER SPACE

FIBERON – WARM SIENA

SHERWIN WILLIAMS PAINT
#SW 6256 – SERIOUS GRAY

SHERWIN WILLIAMS PAINT
#SW 6254 – LAZY GRAY

SHERWIN WILLIAMS PAINT
#SW 7076 – CYBER SPACE

Rev. #	Date	Description

CADENCE CAPITAL INVESTMENTS LLC
6400 FIDDLERS GREEN CIR. STE. 1820
GREEN VILLAGE, CO 80111

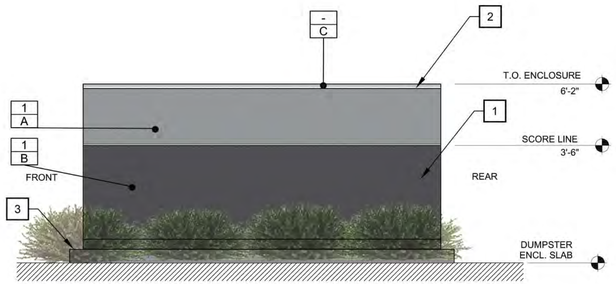
PERRIS BLVD. & DRACAEA AVE.
MORENO VALLEY, CA 92553

EXTERIOR ELEVATION

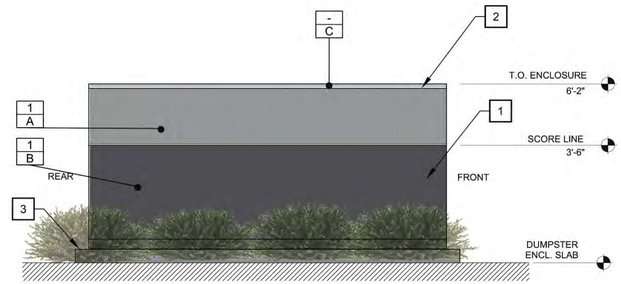
CADENCE

Job #:	M - 1011
Scale:	06/07/19
Date:	AS NOTED
Drawn By:	SPD
Page Number:	5

ELEV



DRIVE THRU — TRASH ENCLOSURE EAST — 3/8"=1' — 5



C STORE — TRASH ENCLOSURE WEST — 3/8"=1' — 5

KEYED NOTES

1. 8" R.C.M. BLOCK W/ STUCCO PAINT TO MATCH BUILDING.
2. 2" CONCRETE CAP
3. 6" PCC FOUNDATION, EXTENDING 6" BEYOND ENCLOSURE WALLS, OVER 90% COMPACTED BASE. WITH A MIN. SLOPE OF 2" TO DRAIN ENCLOSURE.
4. 18 GA. METAL GATES AND STEEL MINI V-BEAM PANEL. HUNG ON 3" STEEL PIPES.
5. 4' ACCESS OPENING
6. 4"X4"' STEEL PIPE

EXTERIOR COLORS & FINISHES

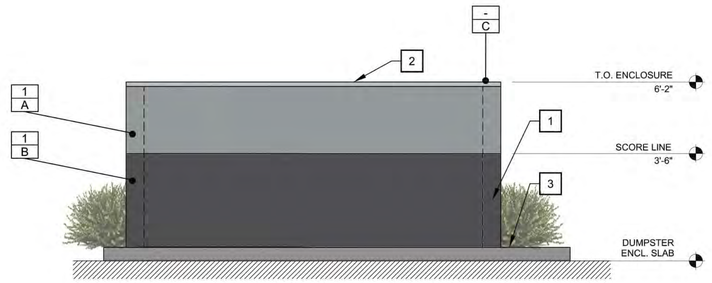
- A — SHERWIN WILLIAMS PAINT # SW 9162 – AFRICAN GRAY
- B — SHERWIN WILLIAMS PAINT # SW 7076 – CYBER SPACE
- C — SHERWIN WILLIAMS PAINT # SW 6254 – LAZY GRAY
- D — ANODIZED ALUMINUM DARK BRONZE

SHERWIN WILLIAMS PAINT
SW 9162 – AFRICAN GRAY

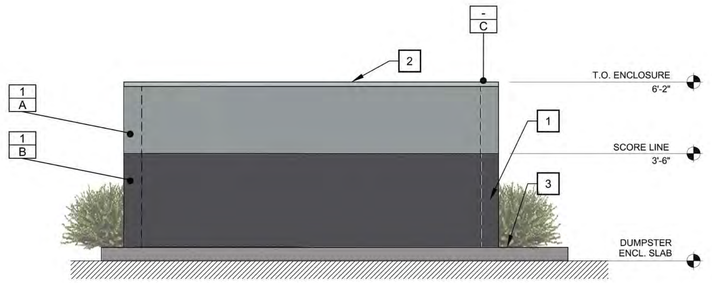
SHERWIN WILLIAMS PAINT
SW 7076 – CYBER SPACE

SHERWIN WILLIAMS PAINT
SW 6254 – LAZY GRAY

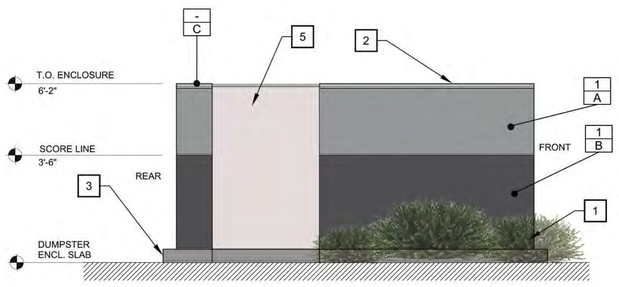
SHERWIN WILLIAMS PAINT
SW 6254 – LAZY GRAY



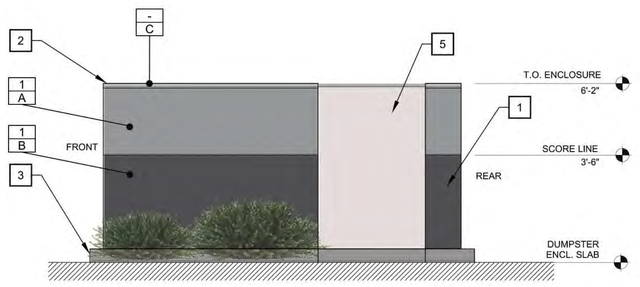
TRASH ENCLOSURE SOUTH — 3/8"=1' — 3



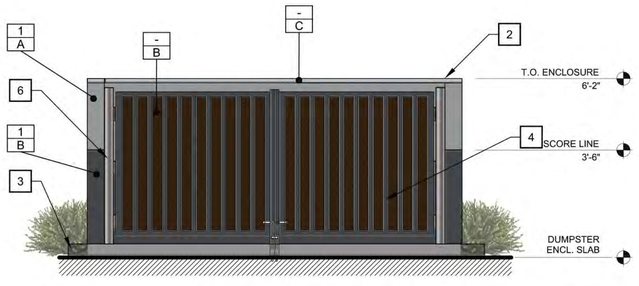
TRASH ENCLOSURE NORTH — 3/8"=1' — 3



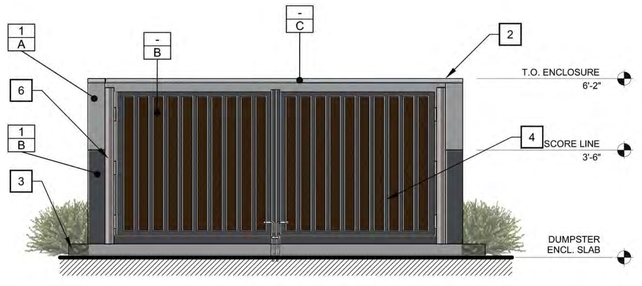
TRASH ENCLOSURE EAST — 3/8"=1' — 2



TRASH ENCLOSURE EAST — 3/8"=1' — 2



TRASH ENCLOSURE NORTH — 3/8"=1' — 1



TRASH ENCLOSURE SOUTH — 3/8"=1' — 1

Rev. #	Date	Description

CADENCE CAPITAL INVESTMENTS LLC
6400 FIDDLERS GREEN CIR. STE. 1820
GREEN VILLAGE, CO 80111

PERRIS BLVD. & DRACAEA AVE.
MORENO VALLEY, CA 92553

TRASH ENCLOSURE (COLOR)

CADENCE

Job #:	M - 1011
Scale:	08/21/19
Date:	AS NOTED
Drawn By:	SPD
Page Number:	9

TE-1

PERIMETER WALL (NORTH) 3/8"=1' 2

PERIMETER WALL (EAST) 3/8"=1' 1

KEYED NOTES

1. 8" R.C.M. BLOCK W/ STUCCO PAINT TO MATCH BUILDING.
2. CONCRETE FOOTING

EXTERIOR COLORS & FINISHES

– A SHERWIN WILLIAMS PAINT # SW 6254 – LAZY GRAY

– B SHERWIN WILLIAMS PAINT #SW 6256 – SERIOUS GRAY

– C SHERWIN WILLIAMS PAINT #SW 7076 – CYBER SPACE

SHERWIN WILLIAMS PAINT
#SW 6254 – LAZY GRAY

SHERWIN WILLIAMS PAINT
#SW 6256 – SERIOUS GRAY

SHERWIN WILLIAMS PAINT
#SW 7076 – CYBER SPACE

Rev. #	Date	Description

CADENCE CAPITAL INVESTMENTS LLC
6400 FIDDLERS GREEN CIR. STE. 1820
GREENWOOD VILLAGE, CO 80111

PERRIS BLVD. & DRACAEA AVE.
MORENO VALLEY, CA 92553

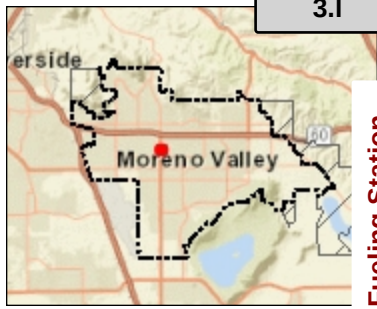
PERIMETER WALL

CADENCE

Job #:	M - 1011
Date:	04/29/20
Scale:	AS NOTED
Drawn By:	SPD

PW

PEN19-0204 - 0207



Legend

Master Plan of Trails
- Bridge
- Improved
- Multiuse
- Proposed
- Regional
- State

Road Labels

Parcels

City Boundary

Sphere of Influence

Image Source: Nearmap

Notes:

APN(s): 479120042, 043, 027, 029

315.5 0 157.74 315.5 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere

Print Date: 10/12/2020

DISCLAIMER: The information shown on this map was compiled from the City of Moreno Valley GIS and Riverside County 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.

Attachment: Aerial Map (4191 : Conditional Use Permits for a Drive Through Restaurant, Fueling Station

City of Moreno Valley
Community Development Department
Planning Division
City Hall Council Chamber
14177 Frederick Street
Moreno Valley, CA 92553

NOTICE OF PUBLIC HEARING (VIA TELECONFERENCE ONLY)

PURSUANT TO COVID-19 GOVERNOR EXECUTIVE ORDER N-29-20

Notice of Teleconferenced Public Hearing before the Planning Commissio
the City of Moreno Valley:

DATE & TIME: November 12, 2020 at 7:00 P.M. **VIA TELECONFEREN ONLY**

COVID-19 TELECONFERENCE INSTRUCTIONS:
For Teleconference Meeting public participation instructions please agenda at **http://morenovalleyca.iqm2.com/Citizens/default.aspx**

PROJECT LOCATION: East side of Perris Boulevard between Drac Avenue and Atwood Avenue, APN's 479-120-042, 043, 027 & 029

CASE NUMBER(s): PEN19-0204-PEN19-0206

CASE PLANNER: Julia Descoteaux, Associate Planner (951) 413 320
juliad@moval.org

<APN>
<Property Owner>
<Street Address>
<City, State, Zip>

NOTICE OF PUBLIC HEARING

PROPOSAL: Conditional Use Permits for a fueling station, convenience store and a drive-through restaurant with outdoor seating which require the proposed General Plan Amendment (R/O to C) and Change of Zone (O/OC to CC) from Office use zone to Communit Commercial.

ENVIRONMENTAL DETERMINATION: The City of Moreno Valley has reviewed the above project and has prepared an Initial Stud in accordance with California Environmental Quality Act (CEQA) Guidelines Section 15070. The Mitigated Negative Declaratio represents the City's independent judgement and analysis. The proposed project will not have a significant effect on the environmer with the implementation of mitigation measures.

PUBLIC HEARING: All interested parties will be provided an opportunity to submit oral testimony during the teleconferenced Publi Hearing and/or provide written testimony during or prior to the teleconferenced Public Hearing. The application file and relate environmental documents may be inspected by appointment at the Community Development Department at 14177 Frederick Stree Moreno Valley, California by calling (951) 413-3206 during normal business hours (7:30 a.m. to 5:30 p.m., Monday through Thursday

COVID-19 – IMPORTANT NOTICES: Please note that due the COVID-19 pandemic situation, staff will attempt to make reasonabl arrangements to ensure accessibility to inspect the aforementioned records. **In addition, special instructions on how to effectivel participate in the teleconferenced Public Hearing, as approved by Governor Executive Order N-25-20, will be posted a http://morenovalleyca.iqm2.com/Citizens/default.aspx and will be described in the Planning Commission agenda.**

PLEASE NOTE: The Planning Commission may consider and approve changes to the proposed items under consideration during t teleconferenced Public Hearing.

GOVERNMENT CODE § 65009 NOTICE: If you challenge any of the proposed actions taken by the Planning Commission in court, y may be limited to raising only those issues you or someone else raised during the teleconferenced Public Hearing described in th notice, or in written correspondence delivered to the Planning Division of the City of Moreno Valley during or prior to, the teleconferenc Public Hearing.

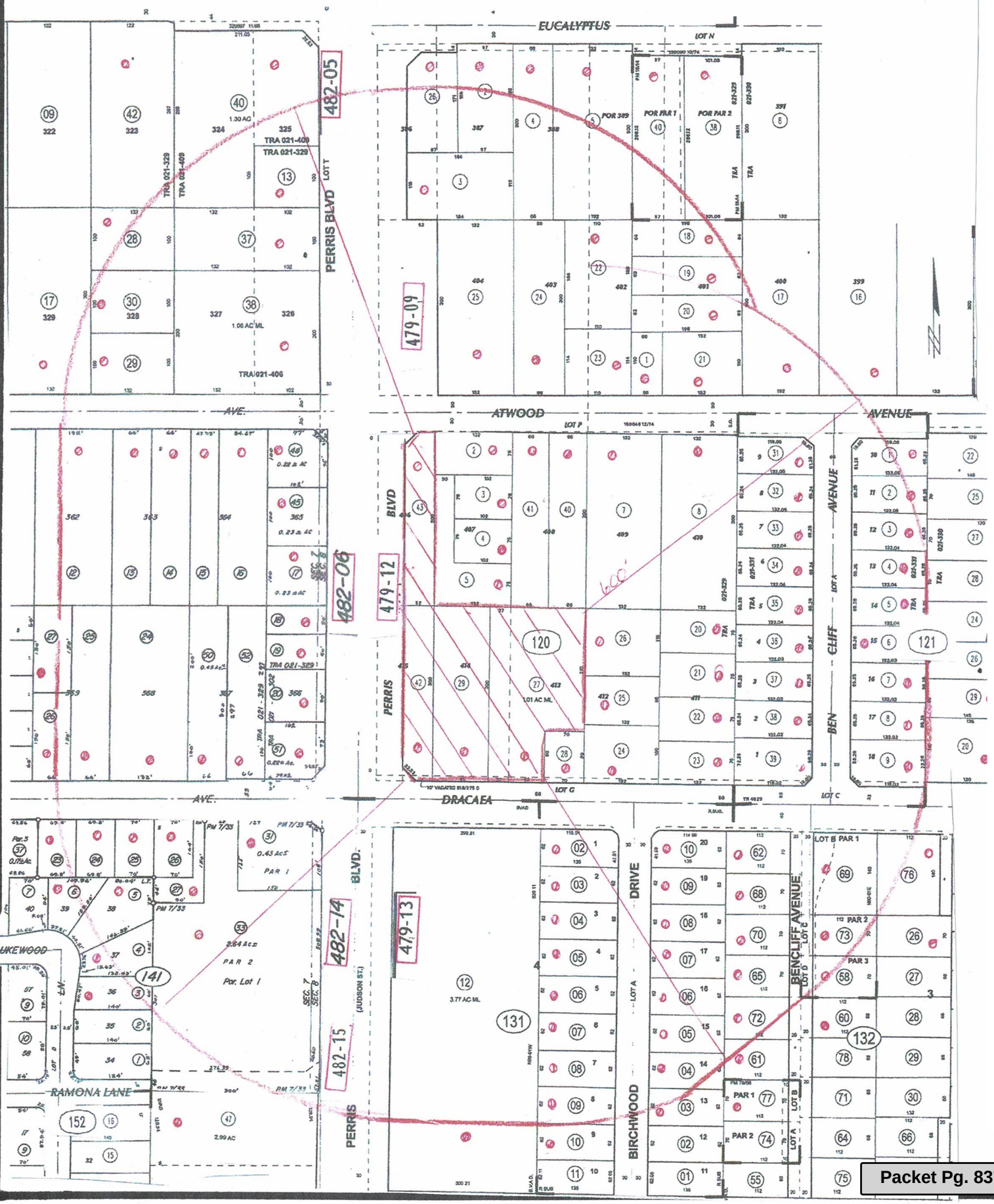
Upon request and in compliance with the Americans with Disabilities Act of 1990, any person with a disability who requires a modification o accommodation in order to participate in a meeting should direct such request to Guy Pegan, ADA Coordinator, at 951.413.3120 at least 48 hours before the meeting. The 48-hour notification will enable the City to make reasonable arrangements to ensure accessib

600' Radius Map

APNS:479-120-027,029,042,043

Ownership Listing Service

Cathy McDermott, Owner
P.O.Box 890684
Temecula CA 92589
Phone & Fax 951.699.8064



Attachment: 600 Foot Radius Map [Revision 1] (4191 : Conditional Use Permits for a Drive Through Restaurant, Fueling Station and

PLANNING COMMISSION

STAFF REPORT

Meeting Date: November 12, 2020

A MUNICIPAL CODE AMENDMENTS AMENDING VARIOUS SECTIONS WITHIN TITLE 9 PLANNING AND ZONING: CHAPTER 9.02 PERMITS AND APPROVALS, CHAPTER 9.09 SPECIFIC USE DEVELOPMENT STANDARDS, CHAPTER 9.11 PARKING, PEDESTRIAN AND LOADING REQUIREMENTS, AND CHAPTER 9.12 SIGN REGULATIONS.

Case:	PEN20-0189 - Municipal Code Amendment
Applicant:	City of Moreno Valley
Case Planner:	Sean P. Kelleher
Council District:	Citywide
Proposal	Municipal Code Amendments amending various sections within Title 9 Planning and Zoning: Chapter 9.02 Permits and Approvals, Chapter 9.09 Specific Use Development Standards, Chapter 9.11 Parking, Pedestrian and Loading Requirements, and Chapter 9.12 Sign Regulations.

SUMMARY

The proposed Municipal Code Amendments revises various sections of Title 9 Planning and Zoning. The intent of the revisions is to provide some flexibility and clarity regarding existing requirements and to streamline certain entitlement procedures in order to promote economic development within the City. These revisions will also make it less costly for the public with respect to processing certain entitlements.

PROJECT DESCRIPTION

Project

The proposed Municipal Code Amendments include revisions to certain provisions of Chapter 9.02 Permits and Approvals, Chapter 9.09 Specific Use Development Standards, Chapter 9.11 Parking, Pedestrian and Loading Requirements, and Chapter 9.12 Sign Regulations. The specifics of each proposed revision is discussed below.

Chapter 9.02 Permits and approvals.

Section 9.02.020 Permitted uses.

The proposed amendments will allow for new or expanded restaurant uses such as dine-in or drive-through restaurants within existing commercial centers without a conditional use permit despite the distance from a residential zone or residential use. Additionally, the permitted uses table will be modified to redesignate certain uses as being permitted, conditionally permitted or conditionally permitted when within 300 feet of a residential zone or use.

Section 9.02.030 Development review process.

This proposed amendment will allow certain uses within existing commercial centers to be approved by the Community Development Director pursuant to the Minor Development Review Criteria, as currently set forth in Title 9 Planning and Zoning.

Section 9.02.080 Administrative plot plan.

This proposed amendment will streamline the review for minor administrative plot plans. Currently, Title 9 requires that modifications to an administrative plot plan be considered in the same manner as the original plot plan, which can be time consuming and costly, in the context of most administrative plot plan amendments. Under the proposed amendment, the Community Development Director will be permitted to approve an administrative plot plan via an Administrative/Research Letter, which will be much more expedient and less costly than the current process.

Section 9.02.090 Administrative variances.

This proposed amendment will provide the Community Development Director with authority to grant administrative exceptions of up to twenty (20) percent for setback and separation requirements, wall height, and required parking for properties within an existing commercial zone. This proposed amendment will also permit the Community Development Director to approve administrative variances to setbacks in commercial zones, not exceeding a thirty (30) percent reduction.

Section 9.02.150 Temporary use permits.

This proposed amendment will allow outdoor provision of services in addition to outdoor merchandise sales which is currently permitted. Additionally, the proposed amendment will provide the Community Development Director with the discretion to approve other uses as temporary uses that are not identified in Table 9.02.150-3, including the

temporary use of parking areas within certain developments. Finally, the proposed amendment will provide the Community Development Director with the discretion to extend the number of days a temporary use may be permitted.

Section 9.02.240 Appeals.

The proposed amendment will make the appeal period consistent with the appeal periods required by State law for subdivision maps. This means the current 15 day appeal periods will be reduced to 10 days.

Section 9.02.280 Substantial conformance.

The proposed amendment clarifies that certain expansions may be approved as part of a substantial conformance approval.

Chapter 9.09 Specific use development standards.

Section 9.09.080 Drive-in, drive-through, fast food and take-out restaurants.

The proposed amendment will provide the Planning Commission with the discretion to extend hours of operation for drive-throughs when adjacent to or across an alley from a residential zone or use; such hours are currently limited to 6am-10pm.

Chapter 9.11 Parking, pedestrian and loading requirements.

Table 9.11.040C-12 Off-street parking requirements.

This proposed amendment will allow the Planning Commission to relax certain trailer parking requirements for industrial developments.

Section 9.11.070 Adjustments to off-street parking requirements.

This proposed amendment will authorize consultants, in addition to traffic engineers, to prepare parking studies and remove the maximum parking reduction percentage associated with transportation management plans.

Chapter 9.12 Sign regulations.

Section 9.12.060 Permitted signs.

This proposed amendment will authorize the Community Development Director to approve more than one freestanding sign, currently identified as “Freeway Signs” under Title 9. The Director will also have the discretion to approve the use 100 percent of the areas of such signs for changeable copy displays, provided that the respective sign also identifies at least one of the on-site businesses either as part of the changeable copy display or the physical structure of said sign. Changeable copy signs may be used to

advertise establishments, products, services and activities that are sold, produced, and/or furnished on-site or off-site.

Section 9.12.070 Sign program.

This proposed amendment will allow for sign programs to be prepared for nonresidential properties developed with a minimum of two tenant suites. The current rule is that the site has to be a minimum of 15 acres in size.

ENVIRONMENTAL

Pursuant to Section 15378 of the California Environmental Quality Act, the proposed amendments to the Municipal Code are procedural in nature and would not involve any change to land use or development standards, thus there is no potential for these Municipal Code changes to either directly or indirectly result in a physical impact on the environment. Therefore, staff has determined that the proposed amendments are not a project under the California Environmental Quality Act.

NOTIFICATION

The public hearing notice for this project was published in the local newspaper on October 31, 2020.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission **APPROVE** Resolution No. 2020-48 and thereby **RECOMMEND** the City Council:

1. **APPROVE** Municipal Code Amendment PEN20-0189 based on the findings contained in this Resolution and **ADOPT** the attached Ordinance.

Prepared by:
Sean P Kelleher

Approved by:
Patty Nevins
Planning Official

ATTACHMENTS

1. Resolution No. 2020-48 Municipal Code Amendment
2. Proposed Municipal Code Amendments Strikeout/Underline Version
3. Public Hearing Notice

RESOLUTION NUMBER 2020-48

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY, CALIFORNIA, RECOMMENDING THE THAT CITY COUNCIL APPROVE MUNICIPAL CODE AMENDMENT PEN20-0189, REVISING VARIOUS SECTIONS OF TITLE 9 PLANNING AND ZONING WHICH INCLUDE CHAPTER 9.02 PERMITS AND APPROVALS, CHAPTER 9.09 SPECIFIC USE DEVELOPMENT STANDARDS, CHAPTER 9.11 PARKING, PEDESTRIAN AND LOADING REQUIREMENTS, AND CHAPTER 9.12 SIGN REGULATIONS.

WHEREAS the City of Moreno Valley ("City") is a general law city and a municipal corporation of the State of California; and

WHEREAS, the City of Moreno Valley has initiated a Municipal Code Amendment, No. PEN20-0189, in order to establish development regulations in compliance with SB330, as described in the title of this resolution and the attached Draft Ordinance, Exhibit A; and

WHEREAS, the application has been evaluated in accordance with established City of Moreno Valley procedures, and with consideration of the General Plan and other applicable regulations; and

WHEREAS, the proposed application for the Municipal Code Amendment has been fully evaluated and considered with respect to the City's General Plan; and

WHEREAS, pursuant to the provisions of Section 9.02.200 ("Public hearing and notification procedures") of the Municipal Code and Government Code Section 65905, a public hearing was scheduled for November 12, 2020 and notice thereof was duly published and posted; and

WHEREAS, on November 12, 2020, the public hearing to consider the proposed amendment was duly notices and conducted by the Planning Commission at which time all interested persons were given full opportunity to be heard and to present evidence; and

WHEREAS, pursuant to Section 15378 of the California Environmental Quality Act, a "Project" means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, but does not include organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment which means that the proposed amendments are not considered to be a "project" under the California Environmental Quality Act; and

WHEREAS, at the public hearing, the Planning Commission reviewed and considered whether each of the requisite findings specified at Section 9.02.050 and set forth herein could be made; and

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Recitals and Exhibits

That the foregoing Recitals and attached Exhibits are true and correct and are hereby incorporated by this reference.

Section 2. Evidence

That the Planning Commission has considered all of the evidence submitted into the administrative record for the proposed Municipal Code Amendment, including, but not limited to, the following:

(a) Moreno Valley General Plan and all other relevant provisions contained therein;
(b) Title 9 ("Planning and Zoning") of the Moreno Valley Municipal Code and all other relevant provisions referenced therein;
(c) Application for the approval of Municipal Code Amendment PEN20-0189 and all documents, records and references contained therein;
(d) Staff Report prepared for the Planning Commission's consideration and all documents, records and references related thereto, and Staff's presentation at the public hearing;
(e) Staff's determination that pursuant to Section 15378 of the California Environmental Quality Act that the proposed amendments are not a project under the California Environmental Quality Act; and
(f) Testimony and/or comments from all persons that was provided in written format or correspondence, at, or prior to, the public hearing.

Section 3. Findings

That based on the foregoing Recitals and the Evidence contained in the Administrative Record as set forth above, the Planning Commission makes the following findings:

(a) The proposed amendments to Title 9 are consistent with the general plan and its goals, objectives, policies, and programs, and with any applicable specific plan;
(b) The proposed amendments to Title 9 will not adversely affect the public health, safety or general welfare;
(c) The proposed amendments to Title 9 are consistent with the purposes and intent of Title 9.

Section 4. Approval

That based on the foregoing Recitals, Evidence contained in the Administrative Record and Findings, the Planning Commission hereby recommends the City Council approve Municipal Code Amendment PEN20-0189 by adopting the attached Ordinance, attached hereto as Exhibit A.

Section 5. **Repeal of Conflicting Provisions**

That all the provisions as heretofore adopted by the Planning Commission that are in conflict with the provisions of this Resolution are hereby repealed.

Section 6. **Severability**

That the Planning Commission declares that, should any provision, section, paragraph, sentence or word of this Resolution be rendered or declared invalid by any final court action in a court of competent jurisdiction or by reason of any preemptive legislation, the remaining provisions, sections, paragraphs, sentences or words of this Resolution as hereby adopted shall remain in full force and effect.

Section 7. **Effective Date**

That this Resolution shall take effect immediately upon the date of adoption.

Section 8. **Certification**

That the Secretary of the Planning Commission shall certify to the passage of this Resolution.

PASSED AND ADOPTED THIS _____ day of _____, 2020.

CITY OF MORENO VALLEY
PLANNING COMMISSION

_____
Patricia Korzec, Chairperson

ATTEST:

_____
Patty Nevins,
Planning Official

APPROVED AS TO FORM:

_____
Steven B. Quintanilla,
Interim City Attorney

Exhibits:
Exhibit A: Draft Ordinance

Exhibit A

DRAFT ORDINANCE

DRAFT

ORDINANCE NO. ____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA, AMENDING VARIOUS SECTIONS WITHIN TITLE 9 PLANNING AND ZONING, INCLUDING CHAPTER 9.02 PERMITS AND APPROVALS, CHAPTER 9.09 SPECIFIC USE DEVELOPMENT STANDARDS, CHAPTER 9.11 PARKING, PEDESTRIAN AND LOADING REQUIREMENTS, AND CHAPTER 9.12 SIGN REGULATIONS.

WHEREAS, the City of Moreno Valley is a General Law city organized pursuant to Article XI of the California Constitution; and

WHEREAS, pursuant to the authority granted the City by Article XI, Section 7 of the California Constitution, the City has the police power to adopt regulations designed to promote the public convenience or the general prosperity, as well as regulations designed to promote the public health and safety; and

WHEREAS, the proposed Municipal Code Amendments as set forth in this Ordinance revises various sections of Title 9 Planning and Zoning; and

WHEREAS, the proposed Municipal Code Amendments include revisions to certain provisions of Chapter 9.02 Permits and Approvals, Chapter 9.09 Specific Use Development Standards, Chapter 9.11 Parking, Pedestrian and Loading Requirements, and Chapter 9.12 Sign Regulations; and

WHEREAS, the intent of the revisions is to provide some flexibility and clarity regarding existing requirements and to streamline certain entitlement procedures in order to promote economic development within the City; and

WHEREAS, the proposed revisions will also make it less costly for the public with respect to processing certain entitlements.

WHEREAS, pursuant to Section 15378 of the California Environmental Quality Act, a 'Project' means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment. A project does not include organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment and the proposed amendments are therefore not a project under the California Environmental Quality Act.

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF MORENO VALLEY DOES ORDAIN AS FOLLOWS:

Section 1. RECITALS

That the above recitals are true and correct and are incorporated herein as though set forth at length herein.

Section 2. AUTHORITY

DRAFT

That this Ordinance is adopted pursuant to the authority granted by Article 11, Section 7 of the Constitution of the State of California and California Government Code Section 37100. The Ordinance is not intended to be duplicative of state law, or be preempted by state legislation.

Section 3. AMENDMENT OF TITLE 9 (ZONING) OF THE MORENO VALLEY MUNICIPAL

That Title 9 (Zoning) of the Municipal Code is hereby amended as follows:

"**Section 9.02.020 Permitted uses.**

The following tables contain columns with headings identifying zoning districts, and list uses by indicating the zoning district or districts in which each use is permitted or allowed and whether the stated use is permitted subject to district requirements, or whether the stated use is allowed only after obtaining a conditional use permit. Where the table indicates, a use is allowed with conditional use permit, unless otherwise expressly provided, all district uses and other standards and requirements shall apply.

Permitted Uses Table 9.02.020-1

X -	Indicates stated use is permitted subject to district requirements.
C -	Indicates stated use is allowed with a conditional use permit.
♦ -	Indicates a use is permitted unless the use is located three hundred (300) feet or less from a residential zone or use, in which case the use is allowed with a conditional use permit. However, the expansion of an existing general manufacturing use or new or expanded restaurant use (dine-in or drive-through) located within an existing commercial center is allowed without a conditional use permit regardless of its distance from residential zones or residential uses.
A -	Indicates a use is permitted with an adult business use permit, providing the requirements of Section 9.09.030 of this title are met.
S -	Indicates a use is permitted, providing the requirements of Section 9.09.280 (Smoke shops) of this title are met. A conditional use permit is required if dictated by the distance criteria.
M -	Indicates a use is allowed with a conditional use permit, providing the requirements of Section 9.09.290 (Commercial cannabis activities) of this title are met.

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	Residential Zones												Mixed Use Overlay			Commercial & Office Zones						Industrial Zones				
	HR	RR	R1	RA2	R2	R3	R5	RS10	R10	R15	R20	R30	MUN[9, 11]	MUC[9, 11]	MUI[8, 10, 11]	NC	CC	VC	OC	O	P	I	LI	BP	BPX	OS
Adult Businesses																	A		A	A		A	A	A	A	
Agricultural Uses—Crops Only	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Agricultural (involving structures)																						X				
Aircraft Landing Facilities																	C		C	C	C	C				
Ambulance Service																	♦				♦	X	X	X	X	
Amusement Parks, Fairgrounds																	♦									
Animal Raising (see Section 9.09.090 of this title)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Appliance and Electronic Repair Shops													X	X	X	X	X					X	X		X	
Arcades, Video Machines																X	X	X								
Athletic Clubs, Gymnasiums and Spas													X	X	X	X	X		X			X	X	X	X	
Auction Houses																	X								X	
Auditoriums													♦	♦	♦		♦	♦	♦	♦	♦	♦	♦	♦	♦	
Auto Electronic Accessories and Installation																	X					X	X		X	
Automobile Fleet Storage																						X	X			
Automobile, Motorcycle, Truck, Golf Cart, Recreational Vehicle, Aircraft and Boat Sales, Leasing, and Incidental Minor Repairs and Accessory Installations																	X					X	X	X	X	
Auto Service Stations a. Accessory uses include convenience store and car wash b. Minor repairs to include auto/boat/motorcycle/RV (excludes major repair, paint, body work)																♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	
Automotive, Boat, Motorcycle and RV Repair—Minor (includes brake, muffler and tire installation and repair)																♦	X					X	X		X	
Automotive Paint and Body Repair—Major Engine Overhaul																	♦					X				
Auto Rentals																	X						X	X	X	
Auto Supply Stores													X	X	X	X	X					X	X		X	
Bakery Shops													X	X	X	X	X	X							X	
Bakery—Commercial																						X				
Banks—Financial Institutions													X	X	X	X	X	X	X	X				X	X	
Barber and Beauty Colleges													X	X	X	X	X		X	X				X	X	
Bars (Drinking Establishments)																										
a. Bars													C	C	C	C	C	C								
b. Bars, with Limited Live Entertainment													C	C	C	C	C	C								
Boarding and Rooming Houses									X	X	X	X	X	X												
Bowling Alley													♦	♦	♦	X	X									
Building Material Sales (with or without outdoor storage)																	♦					X	X	X		
Building Material Storage Yards																						X				
Bus, Rail and Taxi Stations															♦		♦									

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Business Equipment Sales (includes repairs)													X	X	X	X	X	X	X					X	
Business Schools													X	X	X	X	X	X	X	X			X	X	X	
Business Supply Stores													X	X	X	X	X		X			X	X		X	
Cabinet Shop																						X	X	X	X	
Caretakers Residence[1]																♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	
Car Wash																X	X					X				
Accessory to auto related use																♦	♦					X				
Catering Service													X	X	X	X	X	X						X	X	
Cemetery (Human or Pet) with or without accessory mortuary and cremation services (minimum 10-acre site required)	C	C	C	C	C	C	C	C	C	C	C	C														
Churches[2]	C	C	C	C	C	C	C	C	C	C	C	C	♦	♦	♦	♦	♦	C	♦	♦	♦	♦	♦	♦	♦	
Clubs								♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦					C
Commercial Cannabis Activities[17]																										
Cultivation																							M	M	M	
Dispensary																M	M								M	
Manufacturing																							M	M	M	
Testing																							M	M	M	
Microbusiness																	M								M	
Distribution Center																M	M						M	M	M	
Commercial Radio or Television Stations																										
a. With on-site antenna																	♦					♦	♦	♦	♦	
b. Without on-site antenna																	X					X	X	X	X	
Communications Facilities (See Section 9.09.040 of this title)																										
Computer Sales and Repairs													X	X	X	X	X		X			X	X	X	X	
Contractors Storage Yard																						X				
Convalescent Homes/Assisted Living							C	C	C	C	C	C	♦	♦	♦	♦	♦	♦	♦	♦	♦					
Convenience Stores																										
a. With drive-through																X	X									
b. Without drive-through													X	X	X	X	X									
c. With alcohol sales													♦	♦	♦	♦	♦									
Convention Hall, Trade Show, Exhibit Building with Incidental Food Services															C		♦		♦		♦			♦	♦	
Copy Shops													X	X	X	X	X	X	X	X		X	X	X	X	
Country Club	C	C	C	C	C	C	C	C	C	C	C	C														
Dancing, Art, Music and Similar Schools													X	X	X	X	X	X	X	X			X	X	X	
Day Care Centers	C	C	C	C	C	C	C	C	C	C	C	C	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	C
Delicatessens													X	X	X	X	X	X	X				X	X	X	
Diaper Supply Service																						X				
Laundry with Fleet Storage																						X				
Disposal Company																						X				
Drapery Shops													X	X	X	X	X	X								
Dressmaking Shops													X	X	X	X	X	X								
Driving School													X	X	X	X	X		X	X			X	X	X	
Drug Stores													X	X	X	X	X	X								
Dry Cleaning or Laundry																										
a. Dry Cleaning													X	X	X	X	X	X	X						X	
b. Laundromat													X	X	X	X	X	X	X							
c. Laundry Commercial																						X	X			

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Emergency Shelters[14]																	C		C	C	X	C			C	
Equestrian Centers, Riding Academies, Commercial Stables (including incidental sales of feed and tack)	C	C	C	C													♦									♦
Exterminators																	♦					X	X	X	X	
Farmworker Housing									X	X	X	X														
Feed and Grain Stores																X	X	X								
Fire and Police Stations	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Floor Covering Stores (may include incidental repairs with installation service)													X	X	X	X	X					X				
Fraternity/Sorority								C	C	C	C	C														
Frozen Food Locker																						X	X			
Gasoline Dispensing - Nonretail Accessory to an Auto-Related Use																	X					X	X	X	X	
Glass Shops and Glass Studios—Stained, etc.																X	X					X	X		X	
Golf Courses or Golf Driving Ranges with Incidental Commercial Uses	C	C	C	C	C	C	C	C	C	C	C	C														♦
Handicapped Housing								X	X	X	X	X	X	X	X											
Heavy Equipment Sales and Rentals																	X					X	X	X	X	
Hospitals															♦		♦		♦	♦				♦	♦	♦
Hotels									X	X	X	X	X	X	X		X		X					X	X	
Ice Cream Stores—Including Yogurt Sales													X	X	X	X	X	X	X						X	
Impound Yards																						X				
Jewelry Stores													X	X	X	X	X	X								
Kennel and Catteries	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C		♦	♦	♦	♦	C			
Laboratories (medical and dental)													X	X	X	X	X		X	X		X	X	X	X	
Libraries	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	
Liquor Stores													♦	♦		♦	♦									
Live-Work Unit[12]													X	X	X											
Locksmith Shops													X	X	X	X	X	X				X	X	X	X	
Lodge Halls and Similar Facilities													♦	♦	♦	♦	♦		♦					♦	♦	
Lumberyards																	X					X				
Mail Order House																	X					X	X	X	X	
Manufacturing and Assembly																										
a. Custom and light manufacturing indoor uses only (50,000 square feet or less), with light truck traffic, on-site and wholesaling of goods produced																						X	X	X	X	
b. Custom and light manufacturing indoor uses only (more than 50,000 square feet), with light truck traffic, on-site and wholesaling of goods produced																						X	X			
c. General manufacturing with frequent truck traffic and/or outdoor equipment or storage																						X	X			

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d. Retail sales of goods produced or warehoused on-site[3]																						X	X	X	X	
Medical Clinics/Medical Care																										
a. Inpatient care													X	X	X	X	X		X	X		X	X	X	X	
b. Urgent care													X	X	X	X	X		X	X						
Medical Device Services and Sales (retail) including, but not limited to, fittings for and sale of prosthetic and orthotic devices															X	X	X		X			X	X	X	X	
Medical Equipment Supply, including retail sales for in-home medical care, such as wheelchairs, walkers and respiratory equipment															X	X	X		X			X	X	X	X	
Mobile Home Parks	C	C	C	C	C	C	C	C	C	C	C	C														
Mobile Home Sales or Rentals (outdoor display)																	C									
Mortuaries																										
a. With cremation services																							X	X		
b. No cremation services			C	C	C	C	C	C	C	C	C	C			♦	♦	♦						X	X		
Museums	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Newspaper and Printing Shops													X	X	X	X	X					X	X	X	X	
Nightclubs														C	C		C									
Nursery, (Plant), Wholesale and Distribution	X	X	X	X																		X	X			X
Offices (administrative and professional)													X	X	X	X	X	X	X	X			X	X	X	
Open Air Theaters															C						C					C
Orphanages	C	C	C	C	C	C	C	C	C	C	C	C														
Painting Contractor																						X	X			
Parcel Delivery Terminals																						X	X	X	X	
Parking Lot															C	C	X	X	C					X		
Parks and Recreation Facilities (public)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Personal Services (e.g., nail salons, spa facilities[15], barber and beauty shops, and tattoo parlors)													X	X	X	X	X	X	X						X	
Pharmacy[4]													X	X	X	X	X	X	X						X	
Photo Studios													X	X	X	X	X	X	X						X	
Plumbing Shops																	X								X	
Plumbing Supply Stores for Contractors																							X	X	X	
Pool Hall														♦		♦	♦									
Postal Services													X	X	X	X	X	X	X				X	X	X	
Pottery Sales with Outdoor Sales													X	X	X	X	X	X				X			X	
Public Administration, Buildings and Civic Centers													X	X	X	X	X	X	X	X	X	X	X	X	X	
Public Utility Stations, Yards, Wells and Similar Facilities, Excluding Offices	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Racetracks																	C				C					
Record Store													X	X	X	X	X	X								
Recording Studio													X	X	X	X	X	X	X	X		X	X	X	X	
Recreational Facilities (Private) such as Tennis Club, Polo Club, with Limited Associated Incidental Uses	C	C	C	C	C	C	C	C	C	C	C	C	♦	♦	♦	♦	♦	♦								

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Recycling, Large Collection Facility[5]																	♦					X	X			
Recycling, Small Collection Facility													X	X	X	X	X	X								
Recycling Processing Centers																						X	X	X	X	
Refreshment Stands													X	X	X	X	X	X	X	X	X	X	X	X	X	
Rental Service																										
a. Within an enclosed structure (furniture, office, party supplies)													X	X	X	X	X	X				X	X	X	X	
b. With outdoor storage and display (vehicles, equipment, etc.)																♦	♦					X	X			
Research and Development													X	X	X				X	X		X	X	X	X	
Residential																										
a. Single-family	X	X	X	X	X	X	X	X																		
b. Multiple-family									X	X	X	X	X	X	X											
c. Manufactured home park (see mobile home parks)																										
Residential Care Facility (for seven or more persons)	C	C	C	C	C	C	C	C	C	C	C	C	C	C	X											
Restaurants (Eating and Drinking Establishments)																										
a. Without entertainment													X	X	X	X	X	X	X					X	X	
b. With limited live entertainment													X	X	X	X	X	X	X							
c. With alcoholic beverage sales													X	X	X	X	X	X	X						X	
d. With outdoor seating[13]													X	X	X	X	X	X	X					X	X	
Restaurants (fast-food)																										
a. With drive-through																X	X							X	X	
b. Without drive-through													X	X	X	X	X								X	
Retail Sales													X	X	X	X	X	X								
Support Retail Sales													X	X	X				X							
Sandwich Shops[6]													X	X	X	X	X	X	X	X[6]						
Schools, Private	C	C	C	C	C	C	C	C	C	C	C	C	♦	♦	♦	♦	♦		♦	♦				♦	♦	
Senior Housing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				X	X						
Shoe Shine Stands													X	X	X	X	X		X	X				X	X	
Shoe Repair Shop													X	X	X	X	X	X								
Sign Shop													X	X	X	X	X	X				X	X	X	X	
Single Room Occupancy (SRO) Facility												C	C	C	C		X									
Skating Rinks														X			X									
Smoke Shops[16]																S	S	S	S							
Stationery Stores													X	X	X	X	X	X	X					X	X	
Statue Shop - Outdoor Display																	♦					X	X			
Storage Lots and Mini-Warehouses																										
a. Indoor																	C					X				
b. Outdoor																	C					X				
Swim Schools/Center with Incidental Commercial Uses	C	C	C	C	C	C	C	C	C	C	C	C					X									
Taxidermist																	X					X	X			
Theaters (excludes open air)													X	X	X	X	X	X								
Tire Recapping																						X				
Trade and Vocational Schools													X	X	X		X		X	X			X	X	X	
Transfer, Moving and Storage Facilities																						X	X			
Truck Wash																						X	X			
Upholstery Shops																	X					X	X		X	

Ordinance No. ____
Date Adopted: MONTH DD, YYYY

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Vehicle Storage Yards																										
a. Indoor																	X					X	X			
b. Outdoor																	C					X	X			
Vending Machine Service and Repair																						X	X	X	X	
Veterinarian (including animal hospital)																										
a. All activities within an enclosed structure													X	X	X	X	X							X	X	
b. With outdoor activities																	♦							♦	♦	
Weight Reduction Center													X	X	X	X	X	X	X							
Wholesale, Fulfillment, Storage, and Distribution																										
a. All activities indoors (50,000 square feet or less)																						X	X	X	X	
b. All activities indoors (more than 50,000 square feet)																						X	X	X	X	
c. All activities outdoors																						X				
d. Retail sale of goods warehoused on-site[7]																						X	X	X	X	
Wrecking Yard																						♦				

[1] Do not consider residential use per distance requirement.
[2] The administrative plot plan process may be used to establish these uses in an existing building within any commercial or industrial zone, even if the project is located adjacent to residential uses or zones.
[3] Retail is limited to fifteen (15) percent of gross floor area (see Section 9.05.040 of this title).
[4] Permitted in the OC and VOR districts only as a support medical office facility.
[5] Large collection facilities may be established within an existing building through the “tenant improvement” process if such building or tenant space occupied by the use is not located adjacent to a residential use or zone.
[6] Sandwich shops shall not have cooking hoods, nor shall they exceed five percent of the gross floor area of the complex where they are located.
[7] Retail is limited to fifteen (15) percent of gross floor area (see Section 9.05.040 of this title).
[8] In the MUI district, mixed use (commercial uses on first floor with office uses or residential uses on upper floors) are: (a) required on lots at street intersections and within three hundred (300) feet in any direction from a street intersection, as measured from the corner formed by the lot’s property lines, and (b) are allowed, but not required on the other lots.
[9] In the MUC and MUN districts, mixed use (commercial uses on first floor with office uses or residential uses on upper floors) are: (a) required on lots at street intersections and within one hundred fifty (150) feet in any direction from a street intersection, as measured from the corner formed by the lot’s property lines, and (b) are allowed, but not required on the other lots.
[10] See Section 9.07.040 (Medical use overlay district).
[11] See Section 9.09.260 (Mixed use development).
[12] See Section 9.09.250 (Live-work development).
[13] See Section 9.09.270 (Outdoor dining).
[14] Use is also permitted in the Moreno Valley Industrial Area Plan (SP 208).
[15] For spa facilities refer to Title 11, Chapter 11.96 of the municipal code.
[16] See Section 9.09.280(C) (Smoke shops) for distance requirements that require a conditional use permit.
[17] See Section 9.09.290 (Commercial cannabis activities) for all commercial cannabis activities regulations.

Zoning District Key

HR	Hillside Residential District	MUC	Mixed-Use Community Overlay District
RR	Rural Residential District	MUI	Mixed-Use Institutional Anchor Overlay District
R1	Residential 1 District (40,000 square feet minimum lot size)	NC	Neighborhood Commercial District
RA2	Residential Agriculture 2 (20,000 square feet minimum lot size)	CC	Community Commercial District
R2	Residential 2 District (20,000 square feet minimum lot size)	VC	Village Commercial District
R3	Residential 3 District (10,000 square feet minimum lot size)	OC	Office Commercial District
R5	Residential 5 District (7,200 square feet minimum lot size)	O	Office District

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RS10	Residential Single-Family 10 District (4,500 square feet minimum lot size)	P	Public District
R10	Residential 10 District (Up to 10 Dwelling Units per net acre)	I	Industrial District
R15	Residential 15 District (Up to 15 Dwelling Units per net acre)	LI	Light Industrial
R20	Residential 20 District (Up to 20 Dwelling Units per net acre)	BP	Business Park District
R30	Residential 30 District (Up to 30 Dwelling Units per net acre)	BPX	Business Park-Mixed Use District
MU	Mixed Use Overlay District	OS	Open Space District
MUN	Mixed-Use Neighborhood Overlay District”		

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"**Section 9.02.030 Development review process.**

The purpose and intent of this section is to identify types of development review process or processing and to establish, by application type, the procedures and requirements for each type of development review process.

A. Minor Development Review Process.

1. Purpose and Intent. The purpose of minor development review is to provide a process for administrative review of development projects which are of limited size and scope. The intent of this process is to ensure that such limited projects comply with all applicable city guidelines, standards and ordinances; are not detrimental to the public health, safety or welfare; and are not materially damaging to surrounding properties or improvements. The minor development review process shall not be construed to include routine maintenance, reconditioning of an existing building, or other land use approvals construed to fall under Section 9.02.170 of the development code. Routine maintenance includes, but is not limited to, painting, stucco work, repairing existing buildings, and parking lot resurfacing/restriping.

2. Authority. The community development director is authorized to approve, approve with reasonable conditions, or disapprove applications for minor development review. In approving an application, the community development director may impose reasonable conditions to ensure compliance with this title. Conditions may include requirement for open spaces, buffers, walls, fences and screening; requirements for street improvements and dedications, regulation of vehicular ingress, egress and traffic circulation; requirements for installation and maintenance of landscaping and erosion control measures; regulations of signs; regulations of hours of operation; establishment of time limits for performance or completion; and such other conditions as the community development director may deem necessary to make the determinations required by subsection (A)(6) of this section.

3. Minor Development Review Criteria. Unless otherwise specified for major development review pursuant to criteria outlined in subsection (B)(2) of this section, applications which include any of the following criteria shall be subject to the minor development review process and approval by the community development director:

a. Parking lot construction, reconstruction or expansion;

b. Construction, reconstruction or expansion of outdoor storage areas which are a permitted use in the applicable zone;

c. Construction and/or placement of satellite dishes, antennas, roof- or ground-mounted equipment visible from public view, or similar structures or equipment, as determined by the community development director;

d. New structures or additions which qualify for a categorical exemption pursuant to the California Environmental Quality Act (CEQA) and city of Moreno Valley “Rules to Implement CEQA”;

e. Development of any other uses, facilities, or structures for which minor development review is specified elsewhere in this title;

f. Signs permitted subject to the provisions of Section 9.12.020 of this title;

g. Exterior remodeling of industrial, commercial or multifamily facilities;

h. Model homes and changes in production unit sizes within single-family residential tracts, except as otherwise provided in Section 9.08.210 of this title.

i. Projects within existing commercial centers when consistent with existing zoning.

4. Applications. An application for a minor development review shall be filed with the community development department in a manner prescribed by the community development director.

5. Project/Design Review. If it is determined by the community development director that the site contains unique or unusual characteristics and therefore requires additional design review, the community development director may refer the application to the project review staff committee.

6. Required Determinations. Before granting approval of a minor development review application, the community development director shall make the following determinations:

a. That the proposed project is consistent with the goals, objectives, policies and programs of the Moreno Valley general plan and any applicable specific plan;

b. That the proposed project, together with the conditions applicable thereto, will not be detrimental to the public health, safety or welfare, or be materially injurious to properties or improvements in the vicinity;

c. That the proposed project is in compliance with each of the applicable provisions of this title.

B. Major Development Review Process.

1. Purpose and Intent. The major development review process is intended to implement general plan policies and other adopted policy and design standards, regulations and guidelines. To achieve quality development that is functionally as well as aesthetically enhancing to the community, and to minimize adverse effects on surrounding properties and the environment, the purposes of major development review are to ensure the following:

a. That the location and configuration of structures developed within the city are visually harmonious with their sites and with natural landforms and surrounding sites, structures, and streetscapes;

b. That the proposed design produces harmonious transitions in both the scale and character of development between adjacent land uses;

c. That site access and circulation thereon is safe and convenient for pedestrians, bicyclists and vehicles;

d. That adverse environmental effects are minimized;

e. That building site and architectural design is accomplished in an energy-efficient manner;

f. That the materials, textures, colors and details of proposed construction are an appropriate expression of the design concept and function, and are, to the extent feasible, compatible with the adjacent and neighboring structures and functions;

g. That development proposals do not unnecessarily block scenic views from other buildings or from public ways, or visually dominate their surroundings with respect to mass and scale, to an extent inappropriate to their use;

h. That the amount, location and configuration of open space and landscaping conforms to the requirements of this title, provides visually pleasing settings, and is appropriate to the design and function of the structure, site and surrounding area;

i. That the design and location of signs and their materials and colors are consistent with the scale and character of the buildings to which they are attached or are located on the same site, and to ensure visual harmony between signs and surrounding developments;

j. That excessive and unsightly grading of hillsides does not occur, and to ensure the preservation of the character of natural landforms and existing vegetation where feasible;

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k. That excellence in architectural design is maintained in order to enhance the visual environmental of the city and to protect the economic value of existing structures;

l. That historically significant structures and sites are developed as much as possible in a manner consistent with their historic values;

m. That the public health, safety and general welfare are protected;

n. That development plans comply with applicable policies, standards, ordinances and design guidelines.

2. Authority.

a. Discretionary projects, which are not specifically subject to minor development review pursuant to the provisions of subsection A of this section, shall be subject to the major development review process.

b. Unless the city council is designated as the approving body, the planning commission is authorized to approve, conditionally approve or disapprove projects subject to the major development review process.

3. Conditions of Approval. In approving an application subject to the major development review process, conditions may be imposed to ensure compliance with applicable city regulations. Conditions may include:

a. Requirements for fences and walls, screening and buffering of adjacent properties, open spaces, and installation and maintenance of landscaping and erosion control measures;

b. Requirements for street improvements and dedications, regulation of vehicular ingress and egress, and traffic circulation;

c. Regulation of signs;

d. Regulation of hours or other characteristics of operation;

e. Establishment of time limits for performance or completion; and

f. Such other conditions as may be deemed necessary to ensure compatibility with surrounding uses; to preserve the public health, safety and welfare; and to enable the planning commission to make the findings supporting its decision, as required by subsection (B)(5) of this section.

4. Project/Design Review Procedure.

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a. Upon determination that an application is complete, the proposed project shall be forwarded to the project review and community development director for their review and comment.

b. In addition to the project review committee and the community development director, projects subject to the provisions of subsection shall also be submitted to such other city committees and boards, as may be required by the provisions of this title, as well as to such other committees and boards as the community development director determines to be appropriate.

c. Each committee or board to which a project is submitted pursuant to the provisions of this subsection shall review the case at its first available meeting and supply written recommendations to the community development director.

d. In addition to city committees and boards, the community development director shall forward the proposed project to such other public agencies whose operations or areas of responsibility could be affected by the proposed project for their review and comment.

e. If after review and consideration pursuant to subsections (B)(4)(a) through (B)(4)(d) of this section, the project is determined to be unacceptable, the community development director shall inform the applicant of identifiable issues, and suggest alternatives to resolve such issues. The applicant shall then be directed to return with revisions and/or work with staff to resolve issues prior to public hearing or decision by the planning commission.

5. Findings. Following the noticed public hearing pursuant to Section 9.02.200 of this chapter and unless otherwise specified in this chapter, the planning commission shall make the following findings before approving a major development review application:

a. That the proposed project is consistent with the general plan;

b. That the proposed use is in compliance with each of the applicable provisions of this title;

c. That the proposed use, together with the conditions applicable thereto, will not be detrimental to the public health, safety or welfare, or materially injurious to properties or improvements in the vicinity of the proposal.

C. Development Review Index. The following list indicates the review process required for each application type shown.

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Development Review Index
Table 9.02.030-2

Major*** Development Review	Minor Development Review
General Plan Amendment	* Lot Line Adjustment
** Specific Plan	* Lot Merger
Zone Change	* Certificate of Compliance
Conditional Use Permit	Home Occupation Permit
Plot Plan	Large Family Day Care Permit
Variance	Temporary Use Permit
* Tentative Tract Map	Administrative Variance
* Tentative Parcel Map	Administrative Plot Plan
* Vesting Map	**** Model Home Complex
* Reversion to Acreage	Extension of Time for Any Major
Surface Mining Permit	Development Review Projects
Development Agreements	Sign Permits
Extension of Time for Any Major Development Review	

* Refer to Chapter 9.14, Land Divisions, of this title for further information.
** Refer to Chapter 9.13, Specific Plans, of this title for further information.
*** Requires a noticed public hearing pursuant to Section 9.02.200 of this chapter before planning commission and/or city council as established in each section of this title specifying findings for each major development review.
**** Subject to the provisions contained in Section 9.08.210 of this title.

D. Concurrently Filed Applications. An application which is dependent on approval of a change of zone or other enabling application(s) shall be processed concurrently with such enabling application(s). Approval authority for such dependent application(s) shall be vested with the body authorized to approve the enabling application(s)."

"**Section 9.02.080 Administrative plot plan.**

A. Purpose and Intent. The purpose of this section is to provide an administrative application under which development proposals listed as subject to the minor development review process may be processed. Unless a specific application for a particular use is identified within this title, the administrative plot plan application may be used to implement the minor development review process requirements.

B. Authority. The community development director may approve administrative plot plans subject to the requirements, provisions and intentions of this title.

C. An administrative plot plan may be approved if all of the following findings can be made:

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1. The proposed project is consistent with the goals, objectives, policies and programs of the general plan;

2. The proposed project complies with all applicable zoning and other regulations;

3. The proposed project will not be detrimental to the public health, safety or welfare or materially injurious to properties or improvements in the vicinity;

4. The project conforms with any applicable provisions of any city redevelopment plan;

5. Landscaping Setbacks. In any commercial or industrial district, the community development director may decrease minimum setbacks by not more than ten (10) percent where the proposed setback area is in character with the surrounding neighborhood, and where such decrease will not unreasonably affect contiguous sites.

D. Revisions or Modifications. Major revisions or modifications to an administrative plot plan shall be processed in the same manner as the original administrative plot plan. Minor revisions or modifications approvable by the community development director may be processed with an Administrative/Research Letter.

E. Conditions of Approval. In approving an administrative plot plan, the approving authority shall impose conditions of approval for the project regarding on-site improvements, off-site improvements, the manner in which the site is used and any other conditions as may be deemed necessary to protect the public health, safety and welfare and ensure that the project will be developed in accordance with the purpose and intent of this title."

"**Section 9.02.090 Administrative variances.**

A. Purpose and Intent. The purpose of administrative variances is to allow for an administrative procedure for limited adjustments to the provisions of this title in order to prevent unnecessary hardships that might result from a strict or literal interpretation and enforcement of certain regulations prescribed by this title. It is also intended that, with respect to accessory structures for existing single-family residential uses, certain adjustments shall be subject to the director's review procedures, rather than an administrative variance.

B. Authority. The community development director may grant administrative variances where there is a justifiable cause or reason; provided, however, that it does not constitute a grant of special privilege

inconsistent with the provisions and intentions of this title. A public hearing shall not be required for granting of an administrative variance.

C. Limitations on Administrative Variances. Only the following variances may be granted by the community development director and subject to the following limitations:

1. Fence Height. In any district, the maximum height of any fence, wall or equivalent screening may be increased by a maximum of one foot where the topography of sloping sites or a difference in grade between adjoining sites warrants an increase in height to maintain a level of privacy, or to maintain the effectiveness of screening, as would generally be provided by such fence, wall or screening.

2. Setbacks. In any residential district, the community development director may decrease minimum setbacks by not more than ten (10) percent where the proposed setback area or yard is in character with the surrounding neighborhood and where such decrease will not unreasonably affect contiguous sites.

3. Setbacks. In any commercial district, the community development director may decrease minimum setbacks by not more than thirty (30) percent where the proposed setback area or yard is in character with the surrounding area and where such decrease will not unreasonably affect contiguous sites.

4. Lot Coverage. In any residential district, the community development director may increase the maximum allowable lot coverage by not more than ten (10) percent where such increase is necessary for significantly improved site planning or architectural design, creation or maintenance of views or would otherwise facilitate highly desirable features or amenities, and where such increase will not unreasonably affect contiguous sites.

5. Height. In any district, the community development director may authorize a ten (10) percent increase in the maximum allowable building height. Such increases may be approved only where necessary to accommodate architectural design, where scenic views or solar access on surrounding properties are not affected and where there is no increase in useable square footage of the proposed structure.

6. Decrease in Building Frontage Requirements. In any mixed-use overlay district, the co6mmunity development director may authorize up to a ten (10) percent decrease in the distance threshold established to specify the required percentage of a building frontage to be built to the build-to-zone, as indicated in Table 9.07.095-10, Mixed-Use Overlay District Development Standards [i.e., the distance threshold from street

intersections for the purposes of calculating building frontage length may be reduced from three hundred (300) feet to two hundred seventy (270) feet]. The community development director is not authorized to reduce the percentage of the building frontage that is required to be built to the build-to-zone.

D. Notification. The community development director shall notify contiguous property owners and other such interested parties as he or she deems necessary of the application and pending decision. The notification shall state the following:

1. Requested action;

2. Location of requested action (parcel and lot number);

3. Name and address of applicant; and

4. Date after which a decision will be made on application.

If a protest of the proposed administrative variance is received by the community development director from an affected party prior to its effective date, the community development director shall forward the administrative variance to the planning commission for review and action.

E. Required Findings. The community development director, when acting on an administrative variance, shall make all of the following findings prior to approving an application for an administrative variance:

1. That the strict or literal interpretation and enforcement of the specified regulation would result in practical difficulty or unnecessary physical hardship;

2. That there are exceptional circumstances or conditions applicable to the property involved or to the intended use of the property that do not apply generally to other properties in the same district;

3. That strict or literal interpretation and enforcement of the specified regulation would deprive the applicant of privileges enjoyed by other property owners in the same district;

4. That the granting of the administrative variance will not constitute a grant of special privilege inconsistent with the limitations on other properties classified in the same district, and will not be detrimental to the public health, safety or welfare, or materially injurious to properties or improvements in the vicinity; and

5. That the granting of an administrative variance is consistent with the objectives and policies of the general plan and the intent of this title.

F. Administrative Exceptions

Administrative exceptions may be approved by the community development director for reductions of up to twenty (20) percent from minimum setback and separation requirements, wall height, and required parking for properties within an existing commercial zone. An Administrative Exception shall not be approved for reductions from minimum lot size or lot dimensions or landscape coverage, or for an increase in maximum density, floor area ratio, or the height of a structure, not including walls."

"**Section 9.02.150 Temporary use permits.**

A. Purpose and Intent. The temporary use permit is intended to allow for short-term activities on privately owned property with appropriate regulations so that such activities will be compatible with the surrounding areas.

B. Authority.

1. Authority for approval of temporary use permits shall be vested with the community development director through the minor development review process.

2. A permit shall not be required for events that occur in theaters, meeting halls, or other permanent public assembly facilities. Temporary uses may be subject to additional permits, other city department approvals, licenses, and inspections, as required by any applicable laws or regulations.

C. Permitted Temporary Uses. The following table identifies those uses which may be permitted subject to the issuance of a temporary use permit:

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Temporary Uses Table 9.02.150-3

Permitted Temporary Uses (With a Temporary Use Permit)	Locations	Max. No. Days per Calendar Year [1]
Commercial and noncommercial Christmas tree sales, and incidental sales of Christmas lights, tree stands and decorations, but excluding gift items	All zones	30
Mobile health clinic	All commercial and industrial districts	14
Merchandise sale or provision of services - outdoors or in mobile or temporary enclosures - in conjunction with established businesses (see subsection D of this section)	All commercial districts	36 days per shopping or commercial center
Merchandise sale - outdoors or in mobile or temporary enclosures, sponsored by and on the premises of a bank, savings and loan association or credit union of merchandise typically financed by that institution in the normal course of its lending business (see subsection D of this section)	Banks, savings and loan associations and credit unions	12 days per shopping or commercial center
Real estate offices on the site of a proposed subdivision	All districts	n/a
Construction and security personnel offices on active construction sites	All districts	n/a
Temporary construction yards not located on active construction sites	All districts	n/a
Tent meetings	All districts	30
Commercial carnival, concert, exhibit, festival or similar event outdoors or in temporary enclosures	All commercial and industrial districts	14
Noncommercial carnival, fair, concert, exhibit, festival or similar; outdoors or in temporary enclosures	All districts	14
Pumpkin sales lots	All zones	30
Seasonal produce stands	All zones	120
Any other use deemed appropriate by the community development director.	All districts.	n/a
[1] The community development director may extend the maximum number of days per calendar year based on special circumstances.		

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D. Special Requirement for Merchandise Sales. The following shall apply to merchandise sales or provision of services, as delineated in the Temporary Uses Table 9.02.150-3:

1. "Merchandise sale in conjunction with established businesses" means an event managed and operated by the owner or operator of a permanently established business, on the premises of that business (or upon immediately adjacent common area of a shopping or commercial center in which the business is located), conducting the sale, lease, rental or other transfer of control of merchandise which is inventory of the established business or the provision of services and which is of the same or similar kind and quality normally offered as immediately available to the public by that business at that business site. Sales operated by outside vendors shall not be permitted under this provision. An outdoor sale of merchandise or provision of services on the premises of a business that ordinarily only displays merchandise and/or conducts sales or lease transactions for customer delivery or provides services at another site or at another time shall not be permitted under this provision. This subsection shall not apply to "merchandise sales on the premises of a bank, [etc.]," as listed in the Temporary Uses Table.

2. Merchandise sales or provision of services sponsored and sanctioned by the Master Property Association or Property Manager for Shopping Centers, which are twenty (20) acres or larger and located within the Community Commercial (CC) district, shall be a maximum of thirty-six (36) days per calendar year.

3. Food and Entertainment. Upon approval of the community development director and in compliance with all other laws and regulations, food or entertainment may be sold or provided by two or fewer secondary vendors incidental to the merchandise sale or provision of services, such as a hot dog cart, snow cone or popcorn wagon, pony ride, inflatable jumper, etc., provided that such uses occupy not more than twenty-five (25) percent of the total space occupied by the sale or four hundred (400) square feet, whichever is less.

4. No secondary vendors, incidental to the merchandise sale or provisions of services provided, shall conduct business without a buffer of at least two hundred (200) feet from any established business on-site that sells similar products unless written consent from the established business(es), for a lesser buffer, has been presented to the city of Moreno Valley.

5. Merchandise sales (including display areas) or provision of services shall not occupy landscaped areas or unimproved surfaces.

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6. Merchandise sales or provision of services taking place upon parking surfaces shall be confined to improved parking surfaces. Merchandise sales or provision of services shall not occupy more than twenty (20) percent of the legally required improved parking spaces for the business conducting the sale or services, unless approved by the community development director. No merchandise sale or provision of services shall occupy parking spaces legally required for another business, including other businesses located in the same shopping or commercial center, or parking spaces otherwise required for the shopping or commercial center in which the business is located. Merchandise sales or provision of services may occupy on-site improved parking spaces that are not so legally required, subject to all other provisions of this chapter. No merchandise sale or provision of services shall occupy or encumber more than one hundred twenty-five (125) parking spaces.

7. Merchandise sales or provision of services shall not negatively affect the vehicular and pedestrian circulation patterns of the subject site or nearby streets, or the usability of the remaining parking spaces for the site, and shall allow unabated access for public safety personnel and vehicles.

8. Setup and Takedown. One day of setup before a merchandise sale and one day of takedown/cleanup after the sale shall not be counted against the total number of permitted sale days. No sales activity shall occur on such setup or takedown/cleanup days.

9. No Use of Public Right-of-Way. Any and all personal properties or merchandise or services shall be solely contained on private property and shall not extend into the public right-of-way.

10. Cleanup. The permittee shall be responsible for cleanup of the site within twenty-four (24) hours of termination of the event.

E. Application Requirements. Applications for temporary use permits shall be filed a minimum of thirty (30) days prior to the date of the proposed event with the community development department. Applications must be accompanied by all appropriate fees and deposits, as determined by resolution of the city council. The application shall include, at a minimum, the following information:

1. A site plan identifying the area to be occupied, including the location of merchandise or provision of services, proposed signage, temporary structure(s) (e.g., tents, shade structures, vending stands, etc.) and all pedestrian areas, parking lot areas and/or drive aisles proposed to be closed, blocked, obstructed and/or barricaded and their proximity to major circulation aisles, public rights-of-way and buildings. The site plan shall provide proof of compliance with all requirements of applicable laws, ordinances and regulations;

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2. Written authorization from the property owner or the property owner's duly authorized agent;

3. Written operational/environmental statement identifying the proposed dates, defining the nature of the event or use and containing such other information as the community development director or designee shall consider necessary to determine the expected effects and impacts of the event or use;

4. Proof of all applicable city business licenses.

F. Criteria for Permit Issuance. The community development director shall consider the following criteria in rendering a decision relative to a temporary use permit application:

1. The operation of the requested use at the location proposed and within the time period specified will not jeopardize, endanger, or otherwise constitute a menace to the public health, safety or general welfare;

2. The proposed site is adequate in size and shape to accommodate the temporary use without material detriment to the use and enjoyment of other properties located adjacent to and in the vicinity of the site;

3. The proposed site is adequately served by streets or highways having sufficient width and improvements to accommodate the kind and quantity of traffic that the temporary use will or could reasonably be expected to generate;

4. Adequate temporary parking to accommodate vehicular traffic to be generated by the use will be available either on-site or at alternate locations acceptable to the community development director and the city traffic engineer;

5. The property shall be posted at least ten (10) days prior to issuance of a permit for a temporary outdoor event anticipated to accommodate two thousand five hundred (2,500) or more persons on a single site;

6. Neither the applicant nor any person actually managing or operating the temporary use shall have been in violation of any prior temporary use permit within twelve (12) months of the date of application.

G. Conditions of Approval. In approving an application for a temporary use permit, the community development director may impose conditions that are deemed necessary to ensure that the permit will be applied in accordance with the criteria outlined above. These conditions may involve any factors affecting the operation of the temporary use or event, and may include, but are not limited to:

1. Provision of temporary parking facilities, including vehicular ingress and egress;

2. Regulation of nuisance factors such as, but not limited to, prevention of glare or direct illumination of adjacent properties, noise, vibration, smoke, dust, dirt, odors, gases and heat;

3. Regulation of temporary buildings, structures and facilities, including placement, height and size, location of equipment and open spaces, including buffer areas and other yards;

4. Provision of sanitary and medical facilities;

5. Provision of solid waste collection and disposal;

6. Provision of security and safety measures, including deputized officers if necessary, as determined by the chief of police, with all costs borne by the applicant for security and police services;

7. Regulation of signs, including without limitation placement of any signage outside of the city limits;

8. Regulation of operating hours and days, including limitation of the duration of the temporary use to a shorter time period than that requested;

9. Submission of a performance bond or other surety device to assure that any temporary facilities or structures used for the proposed temporary use will be removed from the site within a reasonable time following the event and that the property will be restored to its former condition;

10. Submission of a site plan indicating any information required by this section; all events, structures, equipment, merchandise and activities shall be confined to the area designated on the approved site plan for that event;

11. A requirement that the approval of the requested temporary use permit is contingent upon compliance with applicable provisions of other ordinances;

12. All noncity sponsored groups and individuals who wish to utilize city of Moreno Valley, Moreno Valley community service district (MVCSD) or redevelopment agency (RDA) facilities shall be subject to the following requirements:

a. Noncity sponsored groups or individuals must complete an application which includes an indemnification and hold harmless clause protecting the city and MVCSD or RDA from the lessee's activities,

b. Noncity sponsored groups or individuals must provide the city with evidence of adequate general liability insurance by either:

i. Providing the city with an original certificate of liability insurance and endorsement binder naming the city of Moreno Valley, MVCSD or RDA, where appropriate, as an additional insured,

ii. Participating in the city's special events insurance program if available and approved by the city manager;

13. Other conditions which will ensure the operation of the proposed temporary use in an orderly and efficient manner and in accordance with the intent and purpose of this section;

14. Timely payment of all business license fees, gross receipts taxes and sales and use taxes attributable to the temporary use."

"**Section 9.02.240 Appeals.**

A. Appeal of Action.

1. Any affected person may appeal a decision of the community development director to the planning commission where the community development director's decision would otherwise be final.

2. Any affected person may appeal a decision of the planning commission to the city council.

B. Filing of Appeals. Appeals shall be addressed to the appellate body in a letter submitted to the community development director and shall be accompanied by the required fee. The appellant shall state the specific reasons for the appeal. Unless otherwise required by law, including as specified in Sections 9.02.040 and 9.14.050 of this title, appeals shall be filed with the community development director within ten (10) consecutive calendar days following the date of action for which an appeal is made, or, if no public hearing was held for the taking of such action, then within ten (10) consecutive calendar days following the date of deposit of notice of such action in the United States mail to the applicant, or any person who has requested notice.

C. Appeal Hearings. Public notice of an appeal hearing shall be given, as required by law.

D. Effective Date of Appealed Actions. Except as otherwise provided for in this title, an action which has been appealed shall not become effective until a final determination is made by the appellate body."

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"**Section 9.02.280 Substantial conformance.**

A. Purpose and Intent. The substantial conformance is intended to address minor modifications to approved plot plans, conditional use permits and similar previously approved projects. The substantial conformance application is not intended to authorize a deviation from any applicable development standard specified in this title.

B. Authority. Authority to approve a substantial conformance shall be vested in the community development director. A substantial conformance may be approved subject to further conditions of approval to ensure continued preservation of public health, safety and welfare.

C. Review Requirements. A substantial conformance application shall be subject to minor development review procedures. A substantial conformance application may be filed in lieu of an applicable major development review application, provided that the proposal complies with the limitations described below:

1. That the proposal is not inconsistent with the expressed intent of the original project approval;

2. That the proposal qualifies as a categorical exemption under the California Environmental Quality Act and/or the proposal is consistent with the environmental determination for the original project and where no further environmental determination is necessary; and

3. That the proposed modifications do not have the potential to adversely affect surrounding land uses or improvements.

D. Applicability. A substantial conformance approval may include expansions of approved projects, where the proposal meets zoning code requirements."

"**Section 9.09.080 Drive-in, drive-through, fast food and take-out restaurants.**

A. Purpose and Intent. The purpose of this section is to ensure that drive-in, drive-through, fast food and take-out restaurants do not result in adverse impacts on surrounding neighborhoods by reason of customer and employee parking demand, traffic generation, noise, light, litter, or cumulative impact of such demands in one area, consistent with the goals, objectives and policies of the general plan.

B. Applicability. Drive-in, drive-through, fast food, or take-out restaurants may be permitted subject to the standards of the underlying district and special conditions listed below. The provisions of this section shall apply

to all drive-in, drive-through, fast food and take-out restaurants constructed or the use of which commenced after the effective date of this title and to any expansion of more than twenty (20) percent of the gross floor area or increase of more than twenty-five (25) percent of the number of seats in any such restaurant in use prior to the effective date of this title. Floor area added for the purpose of compliance with state or local health laws or access requirements of the disabled shall not be included in floor area calculations for purposes of determining applicability of this section.

C. Minimum Development Standards. The following minimum development standards shall apply to all drive-in, drive-through, fast food and take-out restaurants.

1. Hours of Operation. When located on a site adjacent to, or separated by an alley from any residentially zoned property, a drive-in, drive-through, fast food or take-out restaurant shall not open prior to six a.m., nor remain open after ten p.m. unless extended hours are specifically approved by the Planning Commission.

2. Driveways. Drive-in and drive-through restaurants sites shall have two points of ingress and/or egress.

3. Queuing. Drive-up and drive-through restaurants shall have a capacity for queuing a minimum of eight vehicles awaiting service. Queuing area shall not interfere with on- or off-site circulation patterns and shall be reviewed and approved by the city traffic engineer prior to issuance of a building permit.

4. Parking. A parking and vehicular circulation plan encompassing adjoining streets and alleys shall be submitted for review and approval by the city traffic engineer prior to approval of a conditional use permit.

5. Trash Receptacle. A minimum of one outdoor trash receptacle shall be provided on-site. At least one additional on-site outdoor trash receptacle shall be provided for every ten (10) required parking spaces.

6. Noise. Any drive-up or drive-through speaker system shall not be detectable above daytime ambient noise levels beyond the property boundaries. The system shall be designed to compensate for ambient noise levels in the immediate area, and shall not be located within one hundred (100) feet of any residential district or any property used for residential uses."

"**Table 9.11.040C-12 Off-Street Parking Requirements**

Industrial Uses	Requirement	Notes
Manufacturing	1/500 sq. ft. of gross floor area	Trailer parking: parking stalls for trailers shall be provided at a ratio of 1 stall per truck loading dock door unless otherwise approved by the Planning Commission. This is in addition to the loading parking stall already provided at the dock door."
Research and development	1/350 sq. ft. of gross floor area	
Warehouse and distribution	1/1,000 sq. ft. of gross floor area for the first 20,000 sq. ft.; 1/ea. 2,000 sq. ft. of gross floor area for the second 20,000 sq. ft.; 1/ea. 4,000 sq. ft. of gross floor area for areas in excess of the initial 40,000 sq. ft.	

"**Section 9.11.070 Adjustments to off-street parking requirements.**

Adjustments to off-street parking for uses included in this chapter may be granted if, in the opinion of the community development director, the proposed modification to the required number of parking or loading spaces is warranted. Requests for parking adjustments shall be reviewed and approved by the community development director based on the following requirements:

A. Parking Studies. The number of spaces required by this chapter, as noted in Section 9.11.040(A) of this chapter, for provisions of off-street parking and loading spaces may be adjusted by the approval authority if it is demonstrated by a parking study, prepared by a qualified parking study consultant, that the proposed use would have a parking or loading space demand other than the requirements of this chapter.

B. Shared Parking.

1. Shared parking is encouraged to avoid the creation of unused parking spaces and their potential harmful effects such as increased construction and maintenance costs, heat and glare, and water run off requiring treatment of pollutants. A reduction in minimum parking requirements for individual uses may be granted by the community development director where joint use of parking facilities or other factors will mitigate peak parking demand.

2. Requests for parking reductions resulting from joint usage shall be supported by information prepared by a qualified parking study consultant. The investigation used to generate the required information shall generally follow the format described below. Shared parking requests shall be analyzed as follows:

a. Initial project review involves documentation and quantification of proposed land uses and anticipated functional relationships between the

parking needs of different land uses. The initial review will also consist of data gathering regarding proximity to transit facilities, general location of parking facilities, surrounding land uses and mix, predicted pedestrian patterns, and similar variables which affect parking needs;

b. Adjustments for peak parking factor includes calculating the number of off-street parking spaces required for each land use within the area proposed for joint parking use based upon the requirements of Section 9.11.040 of this chapter. Other elements to be considered include seasonal adjustment for parking demand and a determination of the mode of transit used in reaching or departing the area being considered;

c. Analysis of hourly accumulation involves an estimation of hourly parking accumulations for each land use during a typical week day or weekend day; and

d. Estimate of shared parking merges the hourly parking demand estimate to calculate the overall parking required to be provided within the area being considered for shared parking facilities.

3. Up to fifty (50) percent of the parking facilities required by this chapter may be utilized as shared parking facilities subject to the requirements of this section. Except that, a church or an auditorium which is part of a public or private school may adjust the required parking by up to one hundred (100) percent of the parking facilities required by this chapter.

4. In granting parking reductions for shared use of parking facilities, the approval authority shall make one or more of the following findings:

a. The parking study report justifies the requested parking reduction based upon the presence of two or more adjacent land uses which, because of their substantially different operating hours or different peak parking characteristics, will allow joint use of the same parking facilities;

b. The parking study report indicates that there are public transportation facilities and/or pedestrian circulation opportunities which justify the requested reduction of parking facilities;

c. The parking study report finds that the clustering of different land uses is such that a reduced number of parking spaces can serve multiple-trip purposes to the area in question.

5. As a condition of approval to the granting of a reduction in required parking, the city may require the granting of reciprocal access and parking agreements with surrounding properties.

C. Transportation Management Plans.

1. The number of required parking spaces may be decreased subject to the approval of a transportation management plan supplied by the applicant. Such a plan may include, but is not limited to, car pooling, van pools, and staggered work hours.

2. In evaluating the request, the approval authority shall consider, among other factors:

a. Projected effectiveness of car pool, van pool, staggered work hours, or similar transportation management programs;

b. Proximity to public transportation facilities which could be reasonably expected to serve a significant portion of employees or customers;

c. Evidence of the likelihood that employees or customers will utilize regular transportation alternatives to individual use of automobiles, including transportation management plans prepared pursuant to South Coast Air Quality Management District Rule XV.

D. Off-Site Parking Facilities. Required parking for a development may be provided off the site in certain instances. Requests for off-site parking facilities shall meet the following requirements:

1. The off-site parking shall be located so that it will adequately serve the use for which it is intended. In making this determination, the approval authority shall consider the following:

a. Proximity of the off-site parking facilities;

b. Ease of pedestrian access to the off-site parking facility;

c. The type of use which the off-site parking is intended to serve, recognizing that such facilities are generally not appropriate for high-turnover uses; and

d. The need for locating parking facilities off-site, and the resulting urban design benefits of off-site parking, if any.

2. As a condition of granting approval to the development of off-site parking facilities, the applicant and other involved parties shall be required to sign and record a reciprocal parking agreement ensuring the continued availability of the off-street parking facilities for the use they are intended to serve."

"**Section 9.12.060 Permitted signs.**

A. General Provisions.

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1. The following signs shall be permitted subject to a sign permit:

a. Monument signs;

b. Tenant identification (wall) signs;

c. Drive-through restaurant menu boards;

d. Freeway signs;

e. Gas station signs;

f. Theater marquees;

g. Internal guidance signs;

h. Directory signs;

i. Special event signs;

j. Off-site directional signs;

k. Banners.

2. Changeable Copy. The signs described in this section may include manual, electronic or mechanically activated changeable copy comprising not more than fifty (50) percent of the sign copy area. Such changeable copy shall not blink, flash or change in appearance more than once in three seconds. Manually activated changeable copy signs shall use no more than two colors and shall be enclosed within a cabinet with a clear protective cover.

B. Monument Sign Requirements.

1. Commercial and Industrial Developments. One sign is allowed per driveway not to exceed a total per street frontage of two square feet of copy area and two and one-half square feet of sign area respectively for each one thousand (1,000) square feet of gross floor area within the development. With respect to a single building of less than ten thousand (10,000) square feet in gross floor area located on an individual parcel with street frontage, such sign need not be less than twenty (20) square feet in sign copy area and thirty-five (35) square feet in sign area per street frontage.

2. Residential Developments.

a. Neighborhood Identification Signs.

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i. One non-illuminated neighborhood identification sign is permitted at each street entrance to each neighborhood.

ii. Neighborhood identification signs shall not exceed twenty-five (25) square feet in copy area, forty-five (45) feet in sign area and six feet in height.

iii. The content of such signs shall be limited to the name of the neighborhood.

iv. All neighborhood identification signs shall be designed for maximum vandal resistance and shall be made of masonry, cement, or other materials of comparable durability. Such signs may be either freestanding or affixed to the neighborhood perimeter wall.

v. All neighborhood identification signs shall comply with the sight distance requirements for traffic safety.

vi. No neighborhood identification sign shall be allowed unless a homeowners' association or community services district is responsible for sign maintenance.

vii. Any neighborhood identification sign located within a city right-of-way shall require an encroachment permit for such sign from the city engineer.

b. Multiple-Family Complex. One wall or monument sign, not exceeding twenty-five (25) square feet in area per display face, is allowed for each public street frontage. Monument signs may not exceed six feet in overall height. In lieu of a freestanding sign or one large wall sign, two single-sided, wall mounted-signs not exceeding twenty-five (25) square feet per display face are allowed for each public street frontage when located at a project entry point. The content of such signs shall be limited to the name of the complex and the range of addresses within the complex.

c. Temporary Model Home Complex. Two non-illuminated signs are permitted not to exceed twenty-five (25) square feet in copy area, forty-five (45) square feet in sign area and six feet in height at each major entrance to the complex. Such signs shall be removed at the completion of home sales.

3. Institutional Signs Within Residential Districts. One monument sign not to exceed thirty-six (36) square feet in copy area, forty-eight (48) square feet in sign area and eight feet in height is permitted to identify the premises of a place of religious worship or similar quasi-public institution.

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4. Sign Height and Area.

a. The height of a monument sign is the vertical dimension measured from the average finished grade level to the highest point of the sign. The height of a monument sign shall not exceed fifteen (15) feet.

b. The maximum height of a sign located on a berm with a finished grade level more than two feet above the top of the street curb shall be reduced an amount equal to the distance that the grade level exceeds two feet above the top of curb.

c. Where topographic constraints make the established copy height standards impractical, the community development director may adjust the height requirements on a project by project basis.

d. The sign area of a monument sign may not exceed the limits prescribed in this section unless a determination is made by the decision-making body that an increase is needed to improve the compatibility of the sign with the architecture of the development where the sign is to be located. This provision shall not be construed to apply to the sign copy area.

5. Addresses. Addresses with a minimum of six-inch letters shall be located above the copy area. If a series of addresses are located within the project, the address shall include the entire address range beginning with the lowest number. Addresses shall not be considered in the calculation of the copy area.

6. Vacant Spaces. Any vacant tenant spaces on a multitenant monument sign shall appear opaque until occupied using a material and texture consistent with the rest of the sign copy area.

7. Opaque Backgrounds. The sign copy area shall be designed with opaque backgrounds such that when illuminated from behind, only the sign text is illuminated against a dark (unlighted) background.

8. Application to Multitenant Centers. Monument sign standards apply to any development designed as an integrated center with shared parking and access. Leasing to individual tenants or subdivision of the center shall not establish separate sign privileges for each tenant or parcel.

9. Setback Requirements. Monument signs may be placed at the ultimate street right-of-way line, except that they shall not encroach within the limited use area described in the landscape development guidelines and specifications.

C. Tenant Identification (Wall) Sign Requirements.

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1. Signs on Buildings Up to Two Stories High. Each tenant may erect a wall sign on the front, side and rear of the building space occupied by such tenant with a sign area not to exceed ten (10) percent of the building face occupied by such tenant, except that such sign need not be less than twenty (20) square feet in area.

2. Signs Within Any District on Buildings Over Two Stories High.

a. One wall sign not to exceed two percent of the building face may be placed above the windows of the highest floor on each exterior wall (front, rear and side) of the building. Such sign(s) shall display the name of the building or the major tenant.

b. Up to four wall signs per building, each not to exceed twenty (20) square feet in area, may be placed below the second floor to identify building tenants.

3. Residential Uses. One wall sign is permitted per street frontage of a multiple-family complex not to exceed twelve (12) square feet in area. The content of such signs shall be limited to the name of the complex and the range of addresses within the complex.

4. Approved Types of Wall Signs. Wall signs shall consist of individually mounted channel letters, carved or routed wood, neon, sculptured cans, can signs and awning signs.

5. Wall Sign Specifications.

a. The copy area of a can wall sign shall use an opaque background. The retainer shall be decorative.

b. Individually mounted letters may be constructed of metal, plastic or foam, provided that the letters are a minimum of one inch in depth and the density of the plastic or foam is three pounds or greater. Alternative materials may be approved provided they are equivalent in durability to the above-referenced materials.

c. Carved or routed wood signs shall be constructed of redwood, cedar, balsa or an equivalent material. Wood signs shall be coated with sealer to minimize weathering. Plywood signs are prohibited.

d. Letters or graphics on an awning sign shall be painted, printed or affixed flat against the surface of an awning. An awning is a roof-like cover constructed of non-rigid material over a supporting framework that projects from the exterior wall of a building.

6. Raceways and Conduit. Raceways and electrical conduit shall not be visible.

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D. Drive-Through Restaurant Menu Boards. Two additional signs shall be permitted for the purpose of displaying the type and price of products sold on-site to drive-through customers. Such signs may include a speaker system to allow drive-through customers to order food and beverages. Such signs shall not exceed forty-eight (48) square feet in area and eight feet in height inclusive of the base. If the restaurant elects to build only a single menu board, the sign shall not exceed sixty-four (64) square feet and the height shall not exceed eight feet inclusive of the base.

E. Freeway Signs. One freestanding on-site sign shall be permitted per parcel or business complex, unless otherwise approved by the community development director, provided that the sign is located within six hundred sixty (660) feet of a freeway right-of-way. Such sign shall not exceed forty-five (45) feet in height and one hundred fifty (150) feet in sign area. The sign area may not exceed the limits prescribed in this section unless a determination is made by the community development director that an increase is needed to improve the compatibility of the sign with the architecture of the development where the sign is to be located.

1. The community development director may approve the use of 100 percent of the area of a freeway sign for changeable copy displays, provided that the respective sign also identifies at least one of the on-site businesses either as part of the changeable copy display or the physical structure of said sign. Changeable copy signs may be used to advertise establishments, products, services and activities that are sold, produced, and/or furnished on-site or off-site.

F. Gas Station Signs.

1. Monument Signs. Gas stations shall be allowed one monument sign per street frontage to identify the business and the state-mandated price identification. Each sign shall not exceed forty (40) square feet in copy area and seventy-five (75) square feet in sign area, except that up to forty-five (45) square feet in copy area may be allowed where there is joint use of a gas station with other businesses.

2. Gas Pump Island Signs. Signs are allowed on or above the fuel pumps not to exceed a maximum aggregate surface area of four-square feet per linear foot of pump island.

3. Gas Pump Canopy (Liter Box) Signs. Letters and symbols placed on the canopy over the fuel pumps shall not exceed twenty (20) percent of the total surface area of each face of the canopy.

G. Theater Marquees. Theater marquees shall be subject to review by the community development director.

H. Internal Guidance Signs. Internal guidance signs may be erected to direct pedestrian or vehicular traffic within the internal circulation system of a business or residential complex. Internal guidance signs shall list one or more of the businesses or buildings on the premises and indicate the recommended route to the businesses or buildings. Such signs shall not exceed fifteen (15) feet in height. Such signs shall be oriented for viewing from within the premises and shall not be readily visible from outside of the premises in which they are located. Internal guidance signs located twenty (20) feet or more from the public right-of-way and less than four square feet in sign area do not require a sign permit.

I. Directory Signs.

1. Vehicular-Oriented Directory Signs. One vehicular-oriented directory sign may be required near each major entrance of a multiple-structure project. One vehicular-oriented directory sign shall be permitted near each major entrance of a multitenant, business complex. Such signs shall not exceed forty-eight (48) square feet in sign area and eight feet in height. A vehicular-oriented directory sign shall not be placed at the driveway entrance but shall be in an easily accessible location adjacent to the driveway. Such sign may contain a list and map and accompanying legend indicating the name of the development, streets, buildings, unit numbers and fire hydrant locations within the development. Vehicle-oriented directory signs shall be oriented for viewing from within the complex and not from the street outside of the complex.

2. Pedestrian-Oriented Directory Signs. One pedestrian-oriented directory sign not to exceed ten (10) square feet in copy area shall be permitted for each multitenant building in a business or residential complex. Such sign shall list each business or residence located within the building and its address.

J. Projecting Signs. A projecting sign may be permitted in lieu of a monument sign based on a determination by the decision-making body that the physical limitations of the site make it impractical to erect a monument sign on the premises. The copy area and sign area shall not exceed the size of the monument sign.

K. Special Event Signs.

1. Special event signs are permitted subject to the following:

a. Definition. A “special promotion” means a commercial event for which the special use of special event signs which are otherwise prohibited by

this chapter, are permitted with a granting of a permit by the community development department prior to such displays. No special promotion shall exceed thirty (30) days during any calendar year at any one address or location within the city;

b. The community development director shall issue permits for “special event signs” not to exceed thirty (30) days during any calendar year. The applicant for such special event signs may elect to determine how the days shall be allocated to that particular address or premises within the city. However, no more than three permits may be issued per calendar year;

c. Applications for “special event sign” permits shall be filed with the community development department, at least five days prior to the beginning of the event; provided, however, that the community development director may exempt an applicant from the five days application prior to the beginning of an event provided the applicant files a declaration under penalty of perjury that the nature of his or her business activities does not permit advance knowledge by the applicant of the time of any particular “special event” and that such applicant agrees that he will not exceed the total number of thirty (30) days within any calendar year;

d. All special event signs shall comply with the following requirements and restrictions:

i. The applicant shall obtain any other required permits, licenses, written approvals from the city or other agencies and observe all laws concerning health and safety.

ii. Written approval from the property owner or authorized agent shall be submitted with the permit application.

iii. A copy of the approved permit application will be furnished by the community development department. This copy, and all other required permits, must be displayed in a conspicuous place on the premises throughout the duration of the event.

iv. Signs, advertising devices and other approved outdoor displays shall substantially conform in size and location to the site plan sketched on or attached to the permit and conform with any restrictions stated upon the permit.

v. Signs, advertising devices and other approved outdoor displays shall be erected or placed only on property in possession or control of the permittee. No off-site signs or displays shall be permitted.

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vi. Within ten (10) feet of any vehicular access or five feet of any public street property line, no sign, advertising device, or other approved outdoor display shall exceed thirty (30) inches in height above street curb. No public right-of-way shall be used for locating any sign or display.

vii. Signs or banners shall be permitted with an area of one square foot for each lineal foot of store or building front, owned or operated by the permittee, up to a maximum of eighty (80) square feet.

viii. All signs, or other approved outdoor displays shall be erected and maintained in a clean, safe manner and in good repair at all times.

ix. The community development director may impose special requirements and restrictions when unusual conditions exist at or near the proposed event location. Such restrictions shall be listed on the approved permit application and shall be adhered to throughout the duration of the event.

x. Search lights may be permitted concurrently with other signs as part of a special event promotion.

2. Special event signs for grand openings shall be permitted in addition to the time frames specified above, provided that no additional time shall be granted for inflatable signs.

a. No sign shall be displayed more than thirty (30) calendar days;

b. The event is for the original opening of a business at a particular location, within thirty (30) days after occupancy. Existing businesses may qualify if the ownership and the name of the business are changed. A grand opening is not an annual or occasional sales promotion or the opening of a related store at another location;

c. The requirements of special event signs are met.

3. Inflatable Signs. Inflatables shall be allowed with a special event sign permit, provided that:

a. Inflatables shall not be displayed for more than thirty (30) days per calendar year;

b. Balloons and blimps shall not exceed a maximum height of fifty (50) feet above grade;

c. Large (greater than forty (40) inches in diameter) balloons and blimps shall be permitted for commercial uses only;

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d. Any size balloon or blimp may be illuminated but may not have been constructed of reflective material.

L. Off-Site Directional Signs. Only off-site directional signs which are in conformance with this section may be erected or maintained within the city. Off-site directional signs shall only be permitted for residential subdivisions, public and quasi-public uses or facilities. The following standards shall apply to the construction and installation of off-site directional signs:

1. The city shall designate an organization for administration of the terms of this section, except that the organization shall have no enforcement powers hereunder. The duties of the organization under this section include, but are not limited to, the following:

a. Timely, equitable and nondiscriminatory processing of applications to install a directional sign on a kiosk;

b. Obtaining sites and approvals for kiosk locations;

c. Timely construction and installation of kiosks and directional signs; and

d. Maintenance of kiosks, kiosk sites and directional signs in a neat, clean and orderly condition.

2. The duties imposed upon the organization pursuant to this section may be exercised by a third party, subject to prior approval of such third party by the public works director.

3. The design of kiosks and directional signs shall be prepared by the organization and submitted to the city for written approval by the public works director.

4. Kiosks and directional signs shall conform to the following general standards:

a. Kiosks shall contain no more than eight directional signs per face;

b. No kiosk shall have more than one face, except that additional faces, not to exceed three in number, may be approved for specific locations by the planning commission;

c. No kiosk shall exceed nine feet in height or five feet in width;

d. Each directional sign shall be nine inches high and five feet long;

e. Directional signs may contain the following information: name of use; applicant logo; and a directional arrow;

f. No tag sign, streamer, device, display board, or other appurtenance may be added to or placed upon any kiosk or kiosk site, except as approved in writing by the public works director;

g. Kiosks will be permitted in all land use districts and on private or public property or right-of-way, subject in each case to written permission of the owner of such property or right-of-way and subject to written approval of the city. Permission of the property owner for each kiosk site shall be filed with the public works director. Approval of the city may be obtained in the following manner:

i. By designation as an approved site by the public works director,

ii. For kiosks of one face, by the public works director, and

iii. For kiosks of two or more faces, by the planning commission, except that the public works director may give interim approval of such sites for a period of thirty (30) days or less;

h. All liabilities, costs and expenses arising out of the siting, installation and construction of kiosks and directional signs, and out of administering the provisions of this section, other than enforcement expenses related to violations of this section, shall be borne by the organization; the organization shall enter into an agreement with the city, under which it indemnifies, defends and holds harmless the city, in such form as approved by the public works director and city attorney, and shall provide public liability insurance in the minimum amount of three hundred thousand dollars ($300,000.00) naming the city as additional insured and in such form and with a company or companies approved by the director of public works and city attorney; and the city shall have no liability therefor.

i. In addition to other penalties provided by law, including those set forth in this section, any directional sign erected, constructed, installed or maintained in violation of this section shall be deemed a public nuisance and may be summarily abated as such by the city.

M. Banners.

1. General Provisions.

a. Banners shall be maintained free from deterioration, disrepair or other condition that would create a nuisance as described in Section 6.04.040 of this code.

b. Banners shall be attached to buildings unless otherwise specified in this section. The banners shall be securely fastened at all four corners to the

wall of the building on which it is located. The method of attachment shall prevent the banner from flapping in the wind.

c. A banner shall not obscure windows, doors, lighting fixtures, other signs, nor shall it be displayed above the walls of the building on which it is located.

2. Promotional Advertising Banners.

a. A “promotional advertising banner” means a banner advertising the name of a business or a product or service provided on the premises.

b. No promotional advertising banner shall be displayed unless authorized by permit issued by the community development department. Each may cover more than one banner. A banner permit shall be effective for as long as the business receiving the permit has a valid business license for the location. A new permit shall be required if the business moves to a new location. Banners shall be maintained in good condition and in conformance with the approved permit.

c. Banners shall be displayed on the wall(s) of the building space occupied by the business advertised on the banner, not to exceed one banner per wall and two banners per business. Each promotional advertising banner shall not exceed ten (10) percent of the area of the building face on which it is placed.

d. In the case of a business engaged in a substantially outdoor enterprise, the community development director may permit a promotional advertising banner to be placed in a location other than the wall of a building occupied by such business and of a size that would be enjoyed by a typical indoor business situated on a site of the same size.

e. A copy of the approved banner permit shall be displayed in a conspicuous place on the premises in full public view for as long as the permit is in effect.

f. A promotional advertising banner shall not be displayed in lieu of a permanent wall or canopy sign except during the first sixty (60) days of issuance of the certificate of occupancy for the business.

g. A promotional advertising banner shall not be displayed facing a freeway.

3. Quasi-Public Uses. One banner not to exceed sixteen (16) square feet in sign area may be displayed per street frontage in conjunction with a quasi-public use.

N. Off-Site Real Estate Signs.

1. An off-site real estate sign is a sign advertising real estate that is for sale, rent, lease or exchange where the advertised property is not the same property on which the sign is located.

2. No off-site real estate sign may be illuminated.

3. No off-site real estate sign shall be allowed without written consent of the property owner.

4. No off-site real estate sign shall be installed in a manner that creates a hazard for vehicle or pedestrian traffic. All off-site real estate signs shall comply with the sight distance requirements for traffic safety.

5. Off-site real estate signs are prohibited within the public right-of-way.

6. No off-site real estate sign shall exceed twenty-four (24) square feet in area or eight feet in height.

7. Off-site real estate signs shall be made of weather-resistant materials, maintained in good condition and kept free of graffiti. No paper, cardboard, lightweight plastic or similar fragile material shall be used. Off-site real estate signs shall be coated with materials that allow graffiti to be removed easily.

8. The content of each off-site real estate sign shall be limited to the information identified in Section 713 of the California Civil Code: a statement that the property is for sale, lease or exchange; directions to the property; and the owner's or agent's name, address and telephone number.

9. Off-site real estate signs shall be removed within ten (10) days of the execution of the sale, lease, exchange or rental agreement for the property for which the sign is erected.

O. Signs in the Public Right-of-Way.

1. A monument sign that is otherwise permissible pursuant to subsection (B)(1) of this section and located in the public-right-of-way may be permitted in the following circumstances:

a. The sign is located within a public right-of-way controlled by the city of Moreno Valley;

b. The sign is located along Sunnymead Boulevard between Frederick Street and Perris Boulevard;

c. There is no practicable location on private property to locate the sign;

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d. The sign design and location do not obstruct or impede any utility, utility access, pedestrian walkways or pedestrian or vehicle sight lines;

e. The sign design and location are not located over or upon any other easement without written authorization for such from the owner of the easement;

f. An encroachment permit is obtained, all fees paid, and all required insurance and other requirements are kept current and valid;

g. A sign permit is obtained in accordance with this chapter.

2. In order to apply for a permit for a sign in the public right-of-way pursuant to this section, an application must first be made for an encroachment permit and all criteria for such encroachment permit must be met.

3. In the event that any of the requirements or terms of the encroachment permit are not met or are not continually maintained in accordance with the encroachment permit, any sign permit shall become void and such sign shall become a public nuisance and may be removed by the city at any time at the sign owner's expense.

4. Any such sign in the public right-of-way shall be immediately removed from the public right-of-way upon request by the city for any public purpose and shall not be entitled to any compensation."

"**Section 9.12.070 Sign program.**

A. An integrated sign program may be requested by the property owner for all nonresidential projects with two or more tenant suites. The sign program shall be subject to review by the community development director. A sign program may deviate from any of the standards provided in this section.

B. Sign programs in effect prior to adoption of this title shall be considered valid upon adoption of this title. Such programs may be converted to the standards given in this section if the landowner files a notice of intent with the community development director."

Section 4. CEQA COMPLIANCE:

The City Council hereby finds and determines that pursuant to Section 15378 of the California Environmental Quality Act, the proposed amendments to the Municipal Code are procedural in nature and would not involve any change to land use or development standards, thus there is no potential for these Municipal Code changes to either directly or indirectly result in a physical impact on the environment. Therefore, the proposed amendments are not a project under the California Environmental Quality Act.

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Section 5. SEVERABILITY

That the City Council declares that, should any provision, section, paragraph, sentence or word of this Ordinance be rendered or declared invalid by any final court action in a court of competent jurisdiction or by reason of any preemptive legislation, the remaining provisions, sections, paragraphs, sentences or words of this ordinance as hereby adopted shall remain in full force and effect.

Section 6. REPEAL OF CONFLICTING PROVISIONS

That all the provisions of the Municipal Code as heretofore adopted by the City of Moreno Valley that are in conflict with the provisions of this Ordinance are hereby repealed.

Section 7. EFFECTIVE DATE

That this Ordinance shall take effect thirty (30) days after its second reading.

Section 8. CERTIFICATION

That the City Clerk shall certify to the passage of this Ordinance and shall cause the same to be published according to law.

INTRODUCED at a regular meeting of the City Council on _____ ____, 2020 and PASSED, APPROVED, and ADOPTED by the City Council on _____ _____, 2020, by the following roll call vote, to wit:

_____
Dr. Yxstian A. Gutierrez
Mayor
City of Moreno Valley

ATTEST:

_____
Pat Jacquez-Nares, City Clerk

APPROVED AS TO FORM:

_____
Steven B. Quintanilla, Interim City Attorney

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ORDINANCE JURAT

STATE OF CALIFORNIA)

COUNTY OF RIVERSIDE) ss.

CITY OF MORENO VALLEY)

I, Pat Jacquez-Nares, City Clerk of the City of Moreno Valley, California, do hereby certify that Ordinance No. YYYY-___ was duly and regularly adopted by the City Council of the City of Moreno Valley at a regular meeting thereof held on the _____ day of_____, YYYY, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

(Council Members, Mayor Pro Tem and Mayor)

_____
CITY CLERK

(SEAL)

9.02.020 Permitted uses.

The following tables contain columns with headings identifying zoning districts, and list uses by indicating the zoning district or districts in which each use is permitted or allowed and whether the stated use is permitted subject to district requirements, or whether the stated use is allowed only after obtaining a conditional use permit. Where the table indicates, a use is allowed with conditional use permit, unless otherwise expressly provided, all district uses and other standards and requirements shall apply.

Permitted Uses Table 9.02.020-1

X -	Indicates stated use is permitted subject to district requirements.
C -	Indicates stated use is allowed with a conditional use permit.
♦ -	Indicates a use is permitted unless the use is located three hundred (300) feet or less from a residential zone or use, in which case the use is allowed with a conditional use permit. However, the expansion of an existing general manufacturing use or new or expanded restaurant use (dine-in or drive-through) located within an existing commercial center is allowed without a conditional use permit regardless of its distance from residential zones or residential uses.
A -	Indicates a use is permitted with an adult business use permit, providing the requirements of Section 9.09.030 of this title are met.
S -	Indicates a use is permitted, providing the requirements of Section 9.09.280 (Smoke shops) of this title are met. A conditional use permit is required if dictated by the distance criteria.
M -	Indicates a use is allowed with a conditional use permit, providing the requirements of Section 9.09.290 (Commercial cannabis activities) of this title are met.

	Residential Zones												Mixed Use Overlay			Commercial & Office Zones						Industrial Zones				
	HR	RR	R1	RA2	R2	R3	R5	RS10	R10	R15	R20	R30	MUN[9, 11]	MUC[9, 11]	MUI[8, 10, 11]	NC	CC	VC	OC	O	P	I	LI	BP	BPX	OS
Adult Businesses																	A		A	A		A	A	A	A	
Agricultural Uses—Crops Only	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Agricultural (involving structures)																						X				
Aircraft Landing Facilities																	C		C	C	C	C				
Ambulance Service																	♦				♦	X	X	X	X	
Amusement Parks, Fairgrounds																	♦									
Animal Raising (see Section 9.09.090 of this title)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Appliance and Electronic Repair Shops													X	X	X	X	X					X	X		X	
Arcades, Video Machines																X♦	X	X♦								
Athletic Clubs, Gymnasiums and Spas													X	X	X	X	X		X			X	X	X	X	
Auction Houses																	X								X	
Auditoriums													♦	♦	♦		♦	♦	♦	♦	♦	♦	♦	♦	♦	
Auto Electronic Accessories and Installation																	X					X	X		X	
Automobile Fleet Storage																						X	X			
Automobile, Motorcycle, Truck, Golf Cart, Recreational Vehicle, Aircraft and Boat Sales, Leasing, and Incidental Minor Repairs and Accessory Installations																	X♦					X	X	X	X	
Auto Service Stations a. Accessory uses include convenience store and car wash b. Minor repairs to include auto/boat/motorcycle/RV (excludes major repair, paint, body work)																♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	
Automotive, Boat, Motorcycle and RV Repair—Minor (includes brake, muffler and tire installation and repair)																♦	X					X	X		X	
Automotive Paint and Body Repair—Major Engine Overhaul																	♦					X				
Auto Rentals																	X						X	X	X	
Auto Supply Stores													X	X	X	X	X					X	X		X	
Bakery Shops													X	X	X	X	X	X							X	
Bakery—Commercial																						X				
Banks—Financial Institutions													X	X	X	X	X	X	X	X				X	X	
Barber and Beauty Colleges													X	X	X	X	X		X	X				X	X	
Bars (Drinking Establishments)																										
a. Bars													C	C	C	C	C	C								
b. Bars, with Limited Live Entertainment													C	C	C	C	C	C								
~~Boat Sales New and Used Including Repairs and Accessory Installation~~																	♦					~~X~~				
Boarding and Rooming Houses									X	X	X	X	X	X												
Bowling Alley													♦	♦	♦	X	X									
Building Material Sales (with or without outdoor storage)																	♦					X	X	X		
~~a. With outdoor storage~~																	♦					~~X~~	~~X~~			

Building Material Storage Yards																						X				
Bus, Rail and Taxi Stations															♦		♦									
Business Equipment Sales (includes repairs)													X	X	X	X	X	X	X						X	
Business Schools													X	X	X	X	X	X	X	X			X	X	X	
Business Supply Stores													X	X	X	X	X		X			X	X		X	
Cabinet Shop																						X	X	X	X	
Caretakers Residence[1]																♦	♦	♦~~C~~	♦	♦	♦	♦	♦	♦	♦	
Car Wash																X	X					X				
Accessory to auto related use																♦	♦					X				
Catering Service													X	X	X	X	X	X						X	X	
Cemetery (Human or Pet) with or without accessory mortuary and cremation services (minimum 10-acre site required)	C	C	C	C	C	C	C	C	C	C	C	C														
Churches[2]	C	C	C	C	C	C	C	C	C	C	C	C	♦	♦	♦	♦	♦	C	♦	♦	♦	♦	♦	♦	♦	
Clubs								♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦					C
Commercial Cannabis Activities[17]																										
Cultivation																							M	M	M	
Dispensary																M	M								M	
Manufacturing																							M	M	M	
Testing																							M	M	M	
Microbusiness																	M								M	
Distribution Center																M	M						M	M	M	
Commercial Radio or Television Stations																										
a. With on-site antenna																	♦					♦	♦	♦	♦	
b. Without on-site antenna																	X					X	X	X	X	
Communications Facilities (See Section 9.09.040 of this title)																										
Computer Sales and Repairs													X	X	X	X	X		X			X	X	X	X	
Contractors Storage Yard																						X				
Convalescent Homes/Assisted Living							C	C	C	C	C	C	♦	♦	♦	♦	♦	♦	♦	♦	♦					
Convenience Stores																										
a. With drive-through																X	X									
b. Without drive-through													X	X	X	X	X									
c. With alcohol sales													♦	♦	♦	♦	♦									
Convention Hall, Trade Show, Exhibit Building with Incidental Food Services															C		♦		♦		♦			♦	♦	
Copy Shops													X	X	X	X	X	X	X	X		X	X	X	X	
Country Club	C	C	C	C	C	C	C	C	C	C	C	C														
Dancing, Art, Music and Similar Schools													X	X	X	X	X	X	X	X			X	X	X	
Day Care Centers	C	C	C	C	C	C	C	C	C	C	C	C	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	C
Delicatessens													X	X	X	X	X	X	X				X	X	X	
Diaper Supply Service																						X				
Laundry with Fleet Storage																						X				
Disposal Company																						X				
Drapery Shops													X	X	X	X	X	X								
Dressmaking Shops													X	X	X	X	X	X								
Driving School													X	X	X	X	X		X	X			X	X	X	
Drug Stores													X	X	X	X	X	X								
Dry Cleaning or Laundry																										
a. Dry Cleaning													X	X	X	X	X	X	X						X	

b. Laundromat													X	X	X	X	X	X	X							
c. Laundry Commercial																						X	X			
Emergency Shelters[14]																	C		C	C	X	C			C	
Equestrian Centers, Riding Academies, Commercial Stables (including incidental sales of feed and tack)	C	C	C	C													♦									♦~~C~~
Exterminators																	♦~~C~~					X	X	X	X	
Farmworker Housing									X	X	X	X														
Feed and Grain Stores																X	X	X								
Fire and Police Stations	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Floor Covering Stores (may include incidental repairs with installation service)													X	X	X	X	X					X				
Fraternity/Sorority								C	C	C	C	C														
Frozen Food Locker																						X	X			
Gasoline Dispensing - Nonretail Accessory to an Auto-Related Use																	X					X	X	X	X	
Glass Shops and Glass Studios—Stained, etc.																X	X					X	X		X	
Golf Courses or Golf Driving Ranges with Incidental Commercial Uses	C	C	C	C	C	C	C	C	C	C	C	C														♦
Handicapped Housing								X	X	X	X	X	X	X	X											
Heavy Equipment Sales and Rentals																	X					X	X	X	X	
Hospitals															♦		♦		♦	♦				♦~~C~~	♦~~C~~	♦~~C~~
Hotels									X	X	X	X	X	X	X		X		X					X	X	
Ice Cream Stores—Including Yogurt Sales													X	X	X	X	X	X	X						X	
Impound Yards																						X				
Jewelry Stores													X	X	X	X	X	X								
Kennel and Catteries	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C		♦	♦	♦	♦	C			
Laboratories (medical and dental)													X	X	X	X	X		X	X		X	X	X	X	
Libraries	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	
Liquor Stores													♦	♦		♦	♦									
Live-Work Unit[12]													X	X	X											
Locksmith Shops													X	X	X	X	X	X				X	X	X	X	
Lodge Halls and Similar Facilities													♦	♦	♦	♦	♦		♦					♦	♦	
Lumberyards																	X					X				
Mail Order House																	X					X	X	X	X	
Manufacturing and Assembly																										
a. Custom and light manufacturing indoor uses only (50,000 square feet or less), with light truck traffic, on-site and wholesaling of goods produced																						X	X	X	X	
b. Custom and light manufacturing indoor uses only (more than 50,000 square feet), with light truck traffic, on-site and wholesaling of goods produced																						X	X			

c. General manufacturing with frequent truck traffic and/or outdoor equipment or storage																						X	X			
d. Retail sales of goods produced or warehoused on-site[3]																						X	X	X	X	
Medical Clinics/Medical Care																										
a. Inpatient care													X	X	X	X	X		X	X		X	X	X	X	
b. Urgent care													X	X	X	X	X		X	X						
Medical Device Services and Sales (retail) including, but not limited to, fittings for and sale of prosthetic and orthotic devices															X	X	X		X			X	X	X	X	
Medical Equipment Supply, including retail sales for in-home medical care, such as wheelchairs, walkers and respiratory equipment															X	X	X		X			X	X	X	X	
Mobile Home Parks	C	C	C	C	C	C	C	C	C	C	C	C														
Mobile Home Sales or Rentals (outdoor display)																	C									
Mortuaries																										
a. With cremation services																							X	X		
b. No cremation services			C	C	C	C	C	C	C	C	C	C			♦	♦	♦						X	X		
Museums	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Newspaper and Printing Shops													X	X	X	X	X					X	X	X	X	
Nightclubs														C	C		C									
Nursery, (Plant), Wholesale and Distribution	X	X	X	X																		X	X			X
Offices (administrative and professional)													X	X	X	X	X	X	X	X			X	X	X	
Open Air Theaters															C						C					C
Orphanages	C	C	C	C	C	C	C	C	C	C	C	C														
Painting Contractor																						X	X			
Parcel Delivery Terminals																						X	X	X	X	
Parking Lot															C	C	X	X	C					X		
Parks and Recreation Facilities (public)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Personal Services (e.g., nail salons, spa facilities[15], barber and beauty shops, and tattoo parlors)													X	X	X	X	X	X	X						X	
Pharmacy[4]													X	X	X	X	X	X	X						X	
Photo Studios													X	X	X	X	X	X	X						X	
Plumbing Shops																	X								X	
Plumbing Supply Stores for Contractors																							X	X	X	
Pool Hall														♦		♦	♦									
Postal Services													X	X	X	X	X	X	X				X	X	X	
Pottery Sales with Outdoor Sales													X	X	X	X	X	X				X			X	
Public Administration, Buildings and Civic Centers													X	X	X	X	X	X	X	X	X	X	X	X	X	
Public Utility Stations, Yards, Wells and Similar Facilities, Excluding Offices	X~~C~~	X~~C~~	X~~C~~	X~~C~~	X~~C~~	X~~C~~	X~~C~~	X~~C~~	X~~C~~	X~~C~~	X~~C~~	X~~C~~	X♦	X♦	X♦	X♦	X♦	X♦	X♦	X♦	X♦	X	X	X♦	X♦	X~~C~~
Racetracks																	C				C					
Record Store													X	X	X	X	X	X								
Recording Studio													X	X	X	X	X	X	X	X		X	X	X	X	

Recreational Facilities (Private) such as Tennis Club, Polo Club, with Limited Associated Incidental Uses	C	C	C	C	C	C	C	C	C	C	C	C	♦	♦	♦	♦	♦	♦								
Recycling, Large Collection Facility[5]																	♦					X	X			
Recycling, Small Collection Facility													X	X	X	X	X	X								
Recycling Processing Centers																						X	X	X	X	
Refreshment Stands													X	X	X	X	X	X	X	X	X	X	X	X	X	
Rental Service																										
a. Within an enclosed structure (furniture, office, party supplies)													X	X	X	X	X	X				X	X	X	X	
b. With outdoor storage and display (vehicles, equipment, etc.)																♦	♦					X	X			
Research and Development													X	X	X				X	X		X	X	X	X	
Residential																										
a. Single-family	X	X	X	X	X	X	X	X																		
b. Multiple-family									X	X	X	X	X	X	X											
c. Manufactured home park (see mobile home parks)																										
Residential Care Facility (for seven or more persons)	C	C	C	C	C	C	C	C	C	C	C	C	C	C	X											
Restaurants (Eating and Drinking Establishments)																										
a. Without entertainment													X	X	X	X	X	X	X					X	X	
b. With limited live entertainment													X	X	X	X	X	X	X							
c. With alcoholic beverage sales													X	X	X	X	X	X	X						X	
d. With outdoor seating[13]													X	X	X	X	X	X	X					X	X	
Restaurants (fast-food)																										
a. With drive-through																X♦	X♦							X	X♦	
b. Without drive-through													X	X	X	X	X								X	
Retail Sales													X	X	X	X	X	X								
Support Retail Sales													X	X	X				X							
Sandwich Shops[6]													X	X	X	X	X	X	X	X[6]						
Schools, Private	C	C	C	C	C	C	C	C	C	C	C	C	♦	♦	♦	♦	♦		♦	♦				♦	♦	
Senior Housing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				X	X						
Shoe Shine Stands													X	X	X	X	X		X	X				X	X	
Shoe Repair Shop													X	X	X	X	X	X								
Sign Shop													X	X	X	X	X	X				X	X	X	X	
Single Room Occupancy (SRO) Facility												C	C	C	C		X									
Skating Rinks														X			X									
Smoke Shops[16]																S	S	S	S							
Stationery Stores													X	X	X	X	X	X	X					X	X	
Statue Shop - Outdoor Display																	♦					X	X			
Storage Lots and Mini-Warehouses																										
a. Indoor																	C					X				
b. Outdoor																	C					X				
Swim Schools/Center with Incidental Commercial Uses	C	C	C	C	C	C	C	C	C	C	C	C					X									
Taxidermist																	X					X	X			
Theaters (excludes open air)													X	X	X	X	X	X								
Tire Recapping																						X				
Trade and Vocational Schools													X	X	X		X		X	X			X	X	X	

Transfer, Moving and Storage Facilities																						X	X			
Truck Wash																						X	X			
Upholstery Shops																	X					X	X		X	
Vehicle Storage Yards																										
a. Indoor																	X					X	X			
b. Outdoor																	C					X	X			
Vending Machine Service and Repair																						X	X	X	X	
Veterinarian (including animal hospital)																										
a. All activities within an enclosed structure													X	X	X	X	X							X	X	
b. With outdoor activities																	♦							♦	♦	
Weight Reduction Center													X	X	X	X	X	X	X							
Wholesale, Fulfillment, Storage, and Distribution																										
a. All activities indoors (50,000 square feet or less)																						X	X	X	X	
b. All activities indoors (more than 50,000 square feet)																						X	X	X	X	
c. All activities outdoors																						X				
d. Retail sale of goods warehoused on-site[7]																						X	X	X	X	
Wrecking Yard																						♦				

[1] Do not consider residential use per distance requirement.
[2] The administrative plot plan process may be used to establish these uses in an existing building within any commercial or industrial zone, even if the project is located adjacent to residential uses or zones.
[3] Retail is limited to fifteen (15) percent of gross floor area (see Section 9.05.040 of this title).
[4] Permitted in the OC and VOR districts only as a support medical office facility.
[5] Large collection facilities may be established within an existing building through the “tenant improvement” process if such building or tenant space occupied by the use is not located adjacent to a residential use or zone.
[6] Sandwich shops shall not have cooking hoods, nor shall they exceed five percent of the gross floor area of the complex where they are located.
[7] Retail is limited to fifteen (15) percent of gross floor area (see Section 9.05.040 of this title).
[8] In the MUI district, mixed use (commercial uses on first floor with office uses or residential uses on upper floors) are: (a) required on lots at street intersections and within three hundred (300) feet in any direction from a street intersection, as measured from the corner formed by the lot’s property lines, and (b) are allowed, but not required on the other lots.
[9] In the MUC and MUN districts, mixed use (commercial uses on first floor with office uses or residential uses on upper floors) are: (a) required on lots at street intersections and within one hundred fifty (150) feet in any direction from a street intersection, as measured from the corner formed by the lot’s property lines, and (b) are allowed, but not required on the other lots.
[10] See Section 9.07.040 (Medical use overlay district).
[11] See Section 9.09.260 (Mixed use development).
[12] See Section 9.09.250 (Live-work development).
[13] See Section 9.09.270 (Outdoor dining).
[14] Use is also permitted in the Moreno Valley Industrial Area Plan (SP 208).
[15] For spa facilities refer to Title 11, Chapter 11.96 of the municipal code.
[16] See Section 9.09.280(C) (Smoke shops) for distance requirements that require a conditional use permit.
[17] See Section 9.09.290 (Commercial cannabis activities) for all commercial cannabis activities regulations.

Zoning District Key

HR	Hillside Residential District	MUC	Mixed-Use Community Overlay District
RR	Rural Residential District	MUI	Mixed-Use Institutional Anchor Overlay District
R1	Residential 1 District (40,000 square feet minimum lot size)	NC	Neighborhood Commercial District
RA2	Residential Agriculture 2 (20,000 square feet minimum lot size)	CC	Community Commercial District
R2	Residential 2 District (20,000 square feet minimum lot size)	VC	Village Commercial District

R3	Residential 3 District (10,000 square feet minimum lot size)	OC	Office Commercial District
R5	Residential 5 District (7,200 square feet minimum lot size)	O	Office District
RS10	Residential Single-Family 10 District (4,500 square feet minimum lot size)	P	Public District
R10	Residential 10 District (Up to 10 Dwelling Units per net acre)	I	Industrial District
R15	Residential 15 District (Up to 15 Dwelling Units per net acre)	LI	Light Industrial
R20	Residential 20 District (Up to 20 Dwelling Units per net acre)	BP	Business Park District
R30	Residential 30 District (Up to 30 Dwelling Units per net acre)	BPX	Business Park-Mixed Use District
MU	Mixed Use Overlay District	OS	Open Space District
MUN	Mixed-Use Neighborhood Overlay District		

9.02.030 Development review process.

The purpose and intent of this section is to identify types of development review process or processing and to establish, by application type, the procedures and requirements for each type of development review process.

A. Minor Development Review Process.

1. Purpose and Intent. The purpose of minor development review is to provide a process for administrative review of development projects which are of limited size and scope. The intent of this process is to ensure that such limited projects comply with all applicable city guidelines, standards and ordinances; are not detrimental to the public health, safety or welfare; and are not materially damaging to surrounding properties or improvements. The minor development review process shall not be construed to include routine maintenance, reconditioning of an existing building, or other land use approvals construed to fall under Section 9.02.170 of the development code. Routine maintenance includes, but is not limited to, painting, stucco work, repairing existing buildings, and parking lot resurfacing/restriping.

2. Authority. The community development director is authorized to approve, approve with reasonable conditions, or disapprove applications for minor development review. In approving an application, the community development director may impose reasonable conditions to ensure compliance with this title. Conditions may include requirement for open spaces, buffers, walls, fences and screening; requirements for street improvements and dedications, regulation of vehicular ingress, egress and traffic circulation; requirements for installation and maintenance of landscaping and erosion control measures; regulations of signs; regulations of hours of operation; establishment of time limits for performance or completion; and such other conditions as the community development director may deem necessary to make the determinations required by subsection (A)(6) of this section.

3. Minor Development Review Criteria. Unless otherwise specified for major development review pursuant to criteria outlined in subsection (B)(2) of this section, applications which include any of the following criteria shall be subject to the minor development review process and approval by the community development director:

a. Parking lot construction, reconstruction or expansion;

b. Construction, reconstruction or expansion of outdoor storage areas which are a permitted use in the applicable zone;

c. Construction and/or placement of satellite dishes, antennas, roof- or ground-mounted equipment visible from public view, or similar structures or equipment, as determined by the community development director;

d. New structures or additions which qualify for a categorical exemption pursuant to the California Environmental Quality Act (CEQA) and city of Moreno Valley “Rules to Implement CEQA”;

e. Development of any other uses, facilities, or structures for which minor development review is specified elsewhere in this title;

f. Signs permitted subject to the provisions of Section 9.12.020 of this title;

g. Exterior remodeling of industrial, commercial or multifamily facilities;

h. Model homes and changes in production unit sizes within single-family residential tracts, except as otherwise provided in Section 9.08.210 of this title.

i. Projects within existing commercial centers when consistent with existing zoning.

4. Applications. An application for a minor development review shall be filed with the community development department in a manner prescribed by the community development director.

5. Project/Design Review. If it is determined by the community development director that the site contains unique or unusual characteristics and therefore requires additional design review, the community development director may refer the application to the project review staff committee.

6. Required Determinations. Before granting approval of a minor development review application, the community development director shall make the following determinations:

a. That the proposed project is consistent with the goals, objectives, policies and programs of the Moreno Valley general plan and any applicable specific plan;

b. That the proposed project, together with the conditions applicable thereto, will not be detrimental to the public health, safety or welfare, or be materially injurious to properties or improvements in the vicinity;

c. That the proposed project is in compliance with each of the applicable provisions of this title.

B. Major Development Review Process.

1. Purpose and Intent. The major development review process is intended to implement general plan policies and other adopted policy and design standards, regulations and guidelines. To achieve quality development that is functionally as well as aesthetically enhancing to the community, and to minimize adverse effects on surrounding properties and the environment, the purposes of major development review are to ensure the following:

a. That the location and configuration of structures developed within the city are visually harmonious with their sites and with natural landforms and surrounding sites, structures, and streetscapes;

b. That the proposed design produces harmonious transitions in both the scale and character of development between adjacent land uses;

c. That site access and circulation thereon is safe and convenient for pedestrians, bicyclists and vehicles;

d. That adverse environmental effects are minimized;

e. That building site and architectural design is accomplished in an energy-efficient manner;

f. That the materials, textures, colors and details of proposed construction are an appropriate expression of the design concept and function, and are, to the extent feasible, compatible with the adjacent and neighboring structures and functions;

g. That development proposals do not unnecessarily block scenic views from other buildings or from public ways, or visually dominate their surroundings with respect to mass and scale, to an extent inappropriate to their use;

h. That the amount, location and configuration of open space and landscaping conforms to the requirements of this title, provides visually pleasing settings, and is appropriate to the design and function of the structure, site and surrounding area;

i. That the design and location of signs and their materials and colors are consistent with the scale and character of the buildings to which they are attached or are located on the same site, and to ensure visual harmony between signs and surrounding developments;

j. That excessive and unsightly grading of hillsides does not occur, and to ensure the preservation of the character of natural landforms and existing vegetation where feasible;

k. That excellence in architectural design is maintained in order to enhance the visual environmental of the city and to protect the economic value of existing structures;

l. That historically significant structures and sites are developed as much as possible in a manner consistent with their historic values;

m. That the public health, safety and general welfare are protected;

n. That development plans comply with applicable policies, standards, ordinances and design guidelines.

2. Authority.

a. Discretionary projects, which are not specifically subject to minor development review pursuant to the provisions of subsection A of this section, shall be subject to the major development review process.

b. Unless the city council is designated as the approving body, the planning commission is authorized to approve, conditionally approve or disapprove projects subject to the major development review process.

3. Conditions of Approval. In approving an application subject to the major development review process, conditions may be imposed to ensure compliance with applicable city regulations. Conditions may include:

a. Requirements for fences and walls, screening and buffering of adjacent properties, open spaces, and installation and maintenance of landscaping and erosion control measures;

b. Requirements for street improvements and dedications, regulation of vehicular ingress and egress, and traffic circulation;

c. Regulation of signs;

d. Regulation of hours or other characteristics of operation;

e. Establishment of time limits for performance or completion; and

f. Such other conditions as may be deemed necessary to ensure compatibility with surrounding uses; to preserve the public health, safety and welfare; and to enable the planning commission to make the findings supporting its decision, as required by subsection (B)(5) of this section.

4. Project/Design Review Procedure.

a. Upon determination that an application is complete, the proposed project shall be forwarded to the project review and community development director for their review and comment.

b. In addition to the project review committee and the community development director, projects subject to the provisions of subsection shall also be submitted to such other city committees and boards, as may be required by the provisions of this title, as well as to such other committees and boards as the community development director determines to be appropriate.

c. Each committee or board to which a project is submitted pursuant to the provisions of this subsection shall review the case at its first available meeting and supply written recommendations to the community development director.

d. In addition to city committees and boards, the community development director shall forward the proposed project to such other public agencies whose operations or areas of responsibility could be affected by the proposed project for their review and comment.

e. If after review and consideration pursuant to subsections (B)(4)(a) through (B)(4)(d) of this section, the project is determined to be unacceptable, the community development director shall inform the applicant of identifiable issues, and suggest alternatives to resolve such issues. The applicant shall then be directed to return with revisions and/or work with staff to resolve issues prior to public hearing or decision by the planning commission.

5. Findings. Following the noticed public hearing pursuant to Section 9.02.200 of this chapter and unless otherwise specified in this chapter, the planning commission shall make the following findings before approving a major development review application:

a. That the proposed project is consistent with the general plan;

b. That the proposed use is in compliance with each of the applicable provisions of this title;

c. That the proposed use, together with the conditions applicable thereto, will not be detrimental to the public health, safety or welfare, or materially injurious to properties or improvements in the vicinity of the proposal.

C. Development Review Index. The following list indicates the review process required for each application type shown.

Development Review Index
Table 9.02.030-2

Major*** Development Review	Minor Development Review
General Plan Amendment	* Lot Line Adjustment
** Specific Plan	* Lot Merger
Zone Change	* Certificate of Compliance
Conditional Use Permit	Home Occupation Permit
Plot Plan	Large Family Day Care Permit
Variance	Temporary Use Permit
* Tentative Tract Map	Administrative Variance
* Tentative Parcel Map	Administrative Plot Plan
* Vesting Map	**** Model Home Complex
* Reversion to Acreage	Extension of Time for Any Major Development Review Projects
Surface Mining Permit	

Major*** Development Review	Minor Development Review
Development Agreements Extension of Time for Any Major Development Review	Sign Permits

* Refer to Chapter 9.14, Land Divisions, of this title for further information.
** Refer to Chapter 9.13, Specific Plans, of this title for further information.
*** Requires a noticed public hearing pursuant to Section 9.02.200 of this chapter before planning commission and/or city council as established in each section of this title specifying findings for each major development review.
**** Subject to the provisions contained in Section 9.08.210 of this title.

D. Concurrently Filed Applications. An application which is dependent on approval of a change of zone or other enabling application(s) shall be processed concurrently with such enabling application(s). Approval authority for such dependent application(s) shall be vested with the body authorized to approve the enabling application(s).

9.02.080 Administrative plot plan.

A. Purpose and Intent. The purpose of this section is to provide an administrative application under which development proposals listed as subject to the minor development review process may be processed. Unless a specific application for a particular use is identified within this title, the administrative plot plan application ~~shall~~ may be used to implement the minor development review process requirements.

B. Authority. The community development director may approve administrative plot plans subject to the requirements, provisions and intentions of this title.

C. An administrative plot plan may be approved if all of the following findings can be made:

1. The proposed project is consistent with the goals, objectives, policies and programs of the general plan;

2. The proposed project complies with all applicable zoning and other regulations;

3. The proposed project will not be detrimental to the public health, safety or welfare or materially injurious to properties or improvements in the vicinity;

4. The project conforms with any applicable provisions of any city redevelopment plan;

5. Landscaping Setbacks. In any commercial or industrial district, the community development director may decrease minimum setbacks by not more than ten (10) percent where the proposed setback area is in character with the surrounding neighborhood, and where such decrease will not unreasonably affect contiguous sites.

D. Revisions or Modifications. Major ~~R~~revisions or modifications to an administrative plot plan shall be processed in the same manner as the original administrative plot plan. Minor revisions or modifications approvable by the community development director may be processed with an Administrative/Research Letter.

E. Conditions of Approval. In approving an administrative plot plan, the approving authority shall impose conditions of approval for the project regarding on-site improvements, off-site improvements, the manner in which the site is used and any other conditions as may be deemed necessary to protect the public health, safety and welfare and ensure that the project will be developed in accordance with the purpose and intent of this title.

9.02.090 Administrative variances.

A. Purpose and Intent. The purpose of administrative variances is to allow for an administrative procedure for limited adjustments to the provisions of this title in order to prevent unnecessary hardships that might result from a strict or literal interpretation and enforcement of certain regulations prescribed by this title. It is also intended that, with respect to accessory structures for existing single-family residential uses, certain adjustments shall be subject to the director's review procedures, rather than an administrative variance.

B. Authority. The community development director may grant administrative variances where there is a justifiable cause or reason; provided, however, that it does not constitute a grant of special privilege inconsistent with the provisions and intentions of this title. A public hearing shall not be required for granting of an administrative variance.

C. Limitations on Administrative Variances. Only the following variances may be granted by the community development director and subject to the following limitations:

1. Fence Height. In any district, the maximum height of any fence, wall or equivalent screening may be increased by a maximum of one foot where the topography of sloping sites or a difference in grade between adjoining sites warrants an increase in height to maintain a level of privacy, or to maintain the effectiveness of screening, as would generally be provided by such fence, wall or screening.

2. Setbacks. In any residential district, the community development director may decrease minimum setbacks by not more than ten (10) percent where the proposed setback area or yard is in character with the surrounding neighborhood and where such decrease will not unreasonably affect contiguous sites.

3. Setbacks. In any commercial district, the community development director may decrease minimum setbacks by not more than thirty (30) percent where the proposed setback area or yard is in character with the surrounding area and where such decrease will not unreasonably affect contiguous sites.

~~3~~4. Lot Coverage. In any residential district, the community development director may increase the maximum allowable lot coverage by not more than ten (10) percent where such increase is necessary for significantly improved site planning or architectural design, creation or maintenance of views or would otherwise facilitate highly desirable features or amenities, and where such increase will not unreasonably affect contiguous sites.

~~4~~5. Height. In any district, the community development director may authorize a ten (10) percent increase in the maximum allowable building height. Such increases may be approved only where necessary to accommodate architectural design, where scenic views or solar access on surrounding properties are not affected and where there is no increase in useable square footage of the proposed structure.

~~5~~6. Decrease in Building Frontage Requirements. In any mixed-use overlay district, the community development director may authorize up to a ten (10) percent decrease in the distance threshold established to specify the required percentage of a building frontage to be built to the build-to-zone, as indicated in Table 9.07.095-10, Mixed-Use Overlay District Development Standards [i.e., the distance threshold from street intersections for the purposes of calculating building frontage length may be reduced from three hundred (300) feet to two hundred seventy (270) feet]. The community development director is not authorized to reduce the percentage of the building frontage that is required to be built to the build-to-zone.

D. Notification. The community development director shall notify contiguous property owners and other such interested parties as he or she deems necessary of the application and pending decision. The notification shall state the following:

1. Requested action;

2. Location of requested action (parcel and lot number);

3. Name and address of applicant; and

4. Date after which a decision will be made on application.

If a protest of the proposed administrative variance is received by the community development director from an affected party prior to its effective date, the community development director shall forward the administrative variance to the planning commission for review and action.

E. Required Findings. The community development director, when acting on an administrative variance, shall make all of the following findings prior to approving an application for an administrative variance:

1. That the strict or literal interpretation and enforcement of the specified regulation would result in practical difficulty or unnecessary physical hardship;

2. That there are exceptional circumstances or conditions applicable to the property involved or to the intended use of the property that do not apply generally to other properties in the same district;

3. That strict or literal interpretation and enforcement of the specified regulation would deprive the applicant of privileges enjoyed by other property owners in the same district;

4. That the granting of the administrative variance will not constitute a grant of special privilege inconsistent with the limitations on other properties classified in the same district, and will not be detrimental to the public health, safety or welfare, or materially injurious to properties or improvements in the vicinity; and

5. That the granting of an administrative variance is consistent with the objectives and policies of the general plan and the intent of this title.

F. Administrative Exceptions

Administrative exceptions may be approved by the community development director for reductions of up to twenty (20) percent from minimum setback and separation requirements, wall height, and required parking for properties within an existing commercial zone. An Administrative Exception shall not be approved for reductions from minimum lot size or lot dimensions or landscape coverage, or for an increase in maximum density, floor area ratio, or the height of a structure, not including walls."

9.02.150 Temporary Use Permits

A. Purpose and Intent. The temporary use permit is intended to allow for short-term activities on privately owned property with appropriate regulations so that such activities will be compatible with the surrounding areas.

B. Authority.

1. Authority for approval of temporary use permits shall be vested with the community development director through the minor development review process.

2. A permit shall not be required for events that occur in theaters, meeting halls, or other permanent public assembly facilities. Temporary uses may be subject to additional permits, other city department approvals, licenses, and inspections, as required by any applicable laws or regulations.

C. Permitted Temporary Uses. The following table identifies those uses which may be permitted subject to the issuance of a temporary use permit:

Temporary Uses Table 9.02.150-3

Permitted Temporary Uses (With a Temporary Use Permit)	**Locations**	**Max. No. Days per Calendar Year [1]**
Commercial and noncommercial Christmas tree sales, and incidental sales of Christmas lights, tree stands and decorations, but excluding gift items	All zones	30
Mobile health clinic	All commercial and industrial districts	14
Merchandise sale or provision of services - outdoors or in mobile or temporary enclosures - in conjunction with established businesses (see subsection D of this section)	All commercial districts	36 days per shopping or commercial center
Merchandise sale - outdoors or in mobile or temporary enclosures, sponsored by and on the premises of a bank, savings and loan association or credit union of merchandise typically financed by that institution in the normal course of its lending business (see subsection D of this section)	Banks, savings and loan associations and credit unions	12 days per shopping or commercial center
Real estate offices on the site of a proposed subdivision	All districts	n/a

Permitted Temporary Uses (With a Temporary Use Permit)	Locations	Max. No. Days per Calendar Year [1]
Construction and security personnel offices on active construction sites	All districts	n/a
Temporary construction yards not located on active construction sites	All districts	n/a
Tent meetings	All districts	30
Commercial carnival, concert, exhibit, festival or similar event outdoors or in temporary enclosures	All commercial and industrial districts	14
Noncommercial carnival, fair, concert, exhibit, festival or similar; outdoors or in temporary enclosures	All districts	14
Pumpkin sales lots	All zones	30
Seasonal produce stands	All zones	120
Any other use deemed appropriate by the community development director.	All districts.	n/a
[1] The community development director may extend the maximum number of days per calendar year based on special circumstances.		

D. Special Requirement for Merchandise Sales. The following shall apply to merchandise sales or provision of services, as delineated in the Temporary Uses Table 9.02.150-3:

1. "Merchandise sale in conjunction with established businesses" means an event managed and operated by the owner or operator of a permanently established business, on the premises of that business (or upon immediately adjacent common area of a shopping or commercial center in which the business is located), conducting the sale, lease, rental or other transfer of control of merchandise which is inventory of the established business or the provision of services and which is of the same or similar kind and quality normally offered as immediately available to the public by that business at that business site. Sales operated by outside vendors shall not be permitted under this provision. An outdoor sale of merchandise or provision of services on the premises of a business that ordinarily only displays merchandise and/or conducts sales or lease transactions for customer delivery or provides services at another site or at another time shall not be permitted under this provision. This subsection shall not apply to "merchandise sales on the premises of a bank, [etc.]," as listed in the Temporary Uses Table.

2. Merchandise sales or provision of services sponsored and sanctioned by the Master Property Association or Property Manager for Shopping Centers, which are twenty (20) acres or larger and located within the Ccommunity Ccommercial ~~zoning~~ (CC) district, shall be a maximum of thirty-six (36) days per calendar year.

3. Food and Entertainment. Upon approval of the community development director and in compliance with all other laws and regulations, food or entertainment may be sold or provided by two or fewer secondary vendors incidental to the merchandise sale or provision of services, such as a hot dog cart, snow cone or popcorn wagon, pony ride, inflatable jumper, etc., provided that such uses occupy not more than twenty-five (25) percent of the total space occupied by the sale or four hundred (400) square feet, whichever is less.

4. No secondary vendors, incidental to the merchandise sale or provision of services, shall conduct business without a buffer of at least two hundred (200) feet from any established business on-site that sells similar products unless written consent from the established business(es), for a lesser buffer, has been presented to the city of Moreno Valley.

5. Merchandise sales (including display areas) or provision of services shall not occupy landscaped areas or unimproved surfaces.

6. Merchandise sales or provision of services taking place upon parking surfaces shall be confined to improved parking surfaces. Merchandise sales or provision of services shall not occupy more than twenty (20) percent of the legally required improved parking spaces for the business conducting the sale or services, unless approved by the community development director. No merchandise sale or provision of services shall occupy parking spaces legally required for another business, including other businesses located in the same shopping or commercial center, or parking spaces otherwise required for the shopping or commercial center in which the business is located. Merchandise sales or provision of services may occupy on-site improved parking spaces that are not so legally required, subject to all other provisions of this chapter. No merchandise sale or provision of services shall occupy or encumber more than one hundred twenty-five (125) parking spaces.

7. Merchandise sales or provision of services shall not negatively affect the vehicular and pedestrian circulation patterns of the subject site or nearby streets, or the usability of the remaining parking spaces for the site, and shall allow unabated access for public safety personnel and vehicles.

8. Setup and Takedown. One day of setup before a merchandise sale and one day of takedown/cleanup after the sale shall not be counted against the total number of permitted sale days. No sales activity shall occur on such setup or takedown/cleanup days.

9. No Use of Public Right-of-Way. Any and all personal properties or merchandise or services shall be solely contained on private property and shall not extend into the public right-of-way.

10. Cleanup. The permittee shall be responsible for cleanup of the site within twenty-four (24) hours of termination of the ~~sale~~ event.

E. Application Requirements. Applications for temporary use permits shall be filed a minimum of thirty (30) days prior to the date of the proposed event with the community development department. Applications must be accompanied by all appropriate fees and deposits, as determined by resolution of the city council. The application shall include, at a minimum, the following information:

1. A site plan identifying the area to be occupied, including the location of merchandise or provision of services, proposed signage, temporary structure(s) (e.g., tents, shade structures, vending stands, etc.) and all pedestrian areas, parking lot areas and/or drive aisles proposed to be closed, blocked, obstructed and/or barricaded and their proximity to major circulation aisles, public rights-of-way and buildings. The site plan shall provide proof of compliance with all requirements of applicable laws, ordinances and regulations;

2. Written authorization from the property owner or the property owner's duly authorized agent;

3. Written operational/environmental statement identifying the proposed dates, defining the nature of the event or use and containing such other information as the community development director or designee shall consider necessary to determine the expected effects and impacts of the event or use;

4. Proof of all applicable city business licenses.

F. Criteria for Permit Issuance. The community development director shall consider the following criteria in rendering a decision relative to a temporary use permit application:

1. The operation of the requested use at the location proposed and within the time period specified will not jeopardize, endanger, or otherwise constitute a menace to the public health, safety or general welfare;

2. The proposed site is adequate in size and shape to accommodate the temporary use without material detriment to the use and enjoyment of other properties located adjacent to and in the vicinity of the site;

3. The proposed site is adequately served by streets or highways having sufficient width and improvements to accommodate the kind and quantity of traffic that the temporary use will or could reasonably be expected to generate;

4. Adequate temporary parking to accommodate vehicular traffic to be generated by the use will be available either on-site or at alternate locations acceptable to the community development director and the city traffic engineer;

5. The property shall be posted at least ten (10) days prior to issuance of a permit for a temporary outdoor event anticipated to accommodate two thousand five hundred (2,500) or more persons on a single site;

6. Neither the applicant nor any person actually managing or operating the temporary use shall have been in violation of any prior temporary use permit within twelve (12) months of the date of application.

G. Conditions of Approval. In approving an application for a temporary use permit, the community development director may impose conditions that are deemed necessary to ensure that the permit will be applied in accordance with the criteria outlined above. These conditions may involve any factors affecting the operation of the temporary use or event, and may include, but are not limited to:

1. Provision of temporary parking facilities, including vehicular ingress and egress;

2. Regulation of nuisance factors such as, but not limited to, prevention of glare or direct illumination of adjacent properties, noise, vibration, smoke, dust, dirt, odors, gases and heat;

3. Regulation of temporary buildings, structures and facilities, including placement, height and size, location of equipment and open spaces, including buffer areas and other yards;

4. Provision of sanitary and medical facilities;

5. Provision of solid waste collection and disposal;

6. Provision of security and safety measures, including deputized officers if necessary, as determined by the chief of police, with all costs borne by the applicant for security and police services;

7. Regulation of signs, including without limitation placement of any signage outside of the city limits;

8. Regulation of operating hours and days, including limitation of the duration of the temporary use to a shorter time period than that requested;

9. Submission of a performance bond or other surety device to assure that any temporary facilities or structures used for the proposed temporary use will be removed from the site within a reasonable time following the event and that the property will be restored to its former condition;

10. Submission of a site plan indicating any information required by this section; all events, structures, equipment, merchandise and activities shall be confined to the area designated on the approved site plan for that event;

11. A requirement that the approval of the requested temporary use permit is contingent upon compliance with applicable provisions of other ordinances;

12. All noncity sponsored groups and individuals who wish to utilize city of Moreno Valley, Moreno Valley community service district (MVCSD) or redevelopment agency (RDA) facilities shall be subject to the following requirements:

a. Noncity sponsored groups or individuals must complete an application which includes an indemnification and hold harmless clause protecting the city and MVCSD or RDA from the lessee's activities,

b. Noncity sponsored groups or individuals must provide the city with evidence of adequate general liability insurance by either:

i. Providing the city with an original certificate of liability insurance and endorsement binder naming the city of Moreno Valley, MVCSD or RDA, where appropriate, as an additional insured,

ii. Participating in the city's special events insurance program if available and approved by the city manager;

13. Other conditions which will ensure the operation of the proposed temporary use in an orderly and efficient manner and in accordance with the intent and purpose of this section;

14. Timely payment of all business license fees, gross receipts taxes and sales and use taxes attributable to the temporary use.

9.02.240 Appeals

A. Appeal of Action.

1. Any affected person may appeal a decision of the community development director to the planning commission where the community development director's decision would otherwise be final.

2. Any affected person may appeal a decision of the planning commission to the city council.

B. Filing of Appeals. Appeals shall be addressed to the appellate body in a letter submitted to the community development director and shall be accompanied by the required fee. The appellant shall state the specific reasons for the appeal. Unless otherwise required by law, including as specified in Sections 9.02.040 and 9.14.050 of this title, appeals shall be filed with the community development director within ten (10) ~~fifteen (15)~~ consecutive calendar days following the date of action for which an appeal is made, or, if no public hearing was held for the taking of such action, then within ten (10) ~~fifteen (15)~~ consecutive calendar days following the date of deposit of notice of such action in the United States mail to the applicant, or any person who has requested notice.

C. Appeal Hearings. Public notice of an appeal hearing shall be given, as required by law.

D. Effective Date of Appealed Actions. Except as otherwise provided for in this title, an action which has been appealed shall not become effective until a final determination is made by the appellate body.

9.02.280 Substantial conformance.

A. Purpose and Intent. The substantial conformance is intended to address minor modifications to approved plot plans, conditional use permits and similar previously approved projects. The substantial conformance application is not intended to authorize a deviation from any applicable development standard specified in this title.

B. Authority. Authority to approve a substantial conformance shall be vested in the community development director. A substantial conformance may be approved subject to further conditions of approval to ensure continued preservation of public health, safety and welfare.

C. Review Requirements. A substantial conformance application shall be subject to minor development review procedures. A substantial conformance application may be filed in lieu of an applicable major development review application, provided that the proposal complies with the limitations described below:

1. That the proposal is not inconsistent with the expressed intent of the original project approval;

2. That the proposal qualifies as a categorical exemption under the California Environmental Quality Act and/or the proposal is consistent with the environmental determination for the original project and where no further environmental determination is necessary; and

3. That the proposed modifications do not have the potential to adversely affect surrounding land uses or improvements.

D. Applicability. A substantial conformance approval may include expansions of approved projects, where the proposal meets zoning code requirements.

9.09.080 Drive-in, drive-through, fast food and take-out restaurants.

A. Purpose and Intent. The purpose of this section is to ensure that drive-in, drive-through, fast food and take-out restaurants do not result in adverse impacts on surrounding neighborhoods by reason of customer and employee parking demand, traffic generation, noise, light, litter, or cumulative impact of such demands in one area, consistent with the goals, objectives and policies of the general plan.

B. Applicability. Drive-in, drive-through, fast food, or take-out restaurants may be permitted subject to the standards of the underlying district and special conditions listed below. The provisions of this section shall apply to all drive-in, drive-through, fast food and take-out restaurants constructed or the use of which commenced after the effective date of this title and to any expansion of more than twenty (20) percent of the gross floor area or increase of more than twenty-five (25) percent of the number of seats in any such restaurant in use prior to the effective date of this title. Floor area added for the purpose of compliance with state or local health laws or access requirements of the disabled shall not be included in floor area calculations for purposes of determining applicability of this section.

C. Minimum Development Standards. The following minimum development standards shall apply to all drive-in, drive-through, fast food and take-out restaurants.

1. Hours of Operation. When located on a site adjacent to, or separated by an alley from any residentially zoned property, a drive-in, drive-through, fast food or take-out restaurant shall not open prior to six a.m., nor remain open after ten p.m. unless extended hours are specifically approved by the Planning Commission. ~~Where a conditional use permit is required, hours of operation may be restricted for a drive-in, drive-through, fast food or take-out restaurant located adjacent to, or separated by an alley from any districts other than residential.~~

2. Driveways. Drive-in and drive-through restaurants sites shall have two points of ingress and/or egress.

3. Queuing. Drive-up and drive-through restaurants shall have a capacity for queuing a minimum of eight vehicles awaiting service. Queuing area shall not interfere with on- or off-site circulation patterns and shall be reviewed and approved by the city traffic engineer prior to issuance of a building permit.

4. Parking. A parking and vehicular circulation plan encompassing adjoining streets and alleys shall be submitted for review and approval by the city traffic engineer prior to approval of a conditional use permit.

5. Trash Receptacle. A minimum of one outdoor trash receptacle shall be provided on-site. At least one additional on-site outdoor trash receptacle shall be provided for every ten (10) required parking spaces.

6. Noise. Any drive-up or drive-through speaker system shall not be detectable above daytime ambient noise levels beyond the property boundaries. The system shall be

designed to compensate for ambient noise levels in the immediate area, and shall not be located within one hundred (100) feet of any residential district or any property used for residential uses.

9.11.040 Off-Street Parking Requirements

Table 9.11.040C-12 Off-Street Parking Requirements

Industrial Uses	Requirement	Notes
Manufacturing	1/500 sq. ft. of gross floor area	Trailer parking: parking stalls for trailers shall be provided at a ratio of 1 stall per truck loading dock door unless otherwise approved by the Planning Commission. This is in addition to the loading parking stall already provided at the dock door.
Research and development	1/350 sq. ft. of gross floor area	
Warehouse and distribution	1/1,000 sq. ft. of gross floor area for the first 20,000 sq. ft.; 1/ea. 2,000 sq. ft. of gross floor area for the second 20,000 sq. ft.; 1/ea. 4,000 sq. ft. of gross floor area for areas in excess of the initial 40,000 sq. ft.	

9.11.070 Adjustments to off-street parking requirements.

Adjustments to off-street parking for uses included in this chapter may be granted if, in the opinion of the community development director, the proposed modification to the required number of parking or loading spaces is warranted. Requests for parking adjustments shall be reviewed and approved by the community development director based on the following requirements:

A. Parking Studies. The number of spaces required by this chapter, as noted in Section 9.11.040(A) of this chapter, for provisions of off-street parking and loading spaces may be adjusted by the approval authority if it is demonstrated by a parking study, prepared by a ~~registered traffic engineer or~~ qualified parking study consultant, that the proposed use would have a parking or loading space demand other than the requirements of this chapter.

B. Shared Parking.

1. Shared parking is encouraged to avoid the creation of unused parking spaces and their potential harmful effects such as increased construction and maintenance costs, heat and glare, and water run off requiring treatment of pollutants. A reduction in minimum parking requirements for individual uses may be granted by the community development director where joint use of parking facilities or other factors will mitigate peak parking demand.

2. Requests for parking reductions resulting from joint usage shall be supported by information prepared by a~~ registered traffic engineer~~ qualified parking study consultant. The investigation used to generate the required information shall generally follow the format described below. Shared parking requests shall be analyzed as follows:

a. Initial project review involves documentation and quantification of proposed land uses and anticipated functional relationships between the parking needs of different land uses. The initial review will also consist of data gathering regarding proximity to transit facilities, general location of parking facilities, surrounding land uses and mix, predicted pedestrian patterns, and similar variables which affect parking needs;

b. Adjustments for peak parking factor includes calculating the number of off-street parking spaces required for each land use within the area proposed for joint parking use based upon the requirements of Section 9.11.040 of this chapter. Other elements to be considered include seasonal adjustment for parking demand and a determination of the mode of transit used in reaching or departing the area being considered;

c. Analysis of hourly accumulation involves an estimation of hourly parking accumulations for each land use during a typical week day or weekend day; and

d. Estimate of shared parking merges the hourly parking demand estimate to calculate the overall parking required to be provided within the area being considered for shared parking facilities.

3. Up to fifty (50) percent of the parking facilities required by this chapter may be utilized as shared parking facilities subject to the requirements of this section. Except that, a church or an auditorium which is part of a public or private school may adjust the required parking by up to one hundred (100) percent of the parking facilities required by this chapter.

4. In granting parking reductions for shared use of parking facilities, the approval authority shall make one or more of the following findings:

a. The ~~traffic engineering~~ parking study report justifies the requested parking reduction based upon the presence of two or more adjacent land uses which, because of their substantially different operating hours or different peak parking characteristics, will allow joint use of the same parking facilities;

b. The ~~traffic engineering~~ parking study report indicates that there are public transportation facilities and/or pedestrian circulation opportunities which justify the requested reduction of parking facilities;

c. The ~~traffic engineering~~ parking study report finds that the clustering of different land uses is such that a reduced number of parking spaces can serve multiple-trip purposes to the area in question.

5. As a condition of approval to the granting of a reduction in required parking, the city may require the granting of reciprocal access and parking agreements with surrounding properties.

C. Transportation Management Plans.

1. The number of required parking spaces may be decreased ~~by up to twenty (20) percent of the required employee parking~~ subject to the approval of a transportation management plan supplied by the applicant. Such a plan may include, but is not limited to, car pooling, van pools, and staggered work hours.

2. In evaluating the request, the approval authority shall consider, among other factors:

a. Projected effectiveness of car pool, van pool, staggered work hours, or similar transportation management programs;

b. Proximity to public transportation facilities which could be reasonably expected to serve a significant portion of employees or customers;

c. Evidence of the likelihood that employees or customers will utilize regular transportation alternatives to individual use of automobiles, including transportation

management plans prepared pursuant to South Coast Air Quality Management District Rule XV.

D. Off-Site Parking Facilities. Required parking for a development may be provided off the site in certain instances. Requests for off-site parking facilities shall meet the following requirements:

1. The off-site parking shall be located so that it will adequately serve the use for which it is intended. In making this determination, the approval authority shall consider the following:

a. Proximity of the off-site parking facilities;

b. Ease of pedestrian access to the off-site parking facility;

c. The type of use which the off-site parking is intended to serve, recognizing that such facilities are generally not appropriate for high-turnover uses; and

d. The need for locating parking facilities off-site, and the resulting urban design benefits of off-site parking, if any.

2. As a condition of granting approval to the development of off-site parking facilities, the applicant and other involved parties shall be required to sign and record a reciprocal parking agreement ensuring the continued availability of the off-street parking facilities for the use they are intended to serve.

9.12.060 Permitted signs.

A. General Provisions.

1. The following signs shall be permitted subject to a sign permit:

a. Monument signs;

b. Tenant identification (wall) signs;

c. Drive-through restaurant menu boards;

d. Freeway signs;

e. Gas station signs;

f. Theater marquees;

g. Internal guidance signs;

h. Directory signs;

i. Special event signs;

j. Off-site directional signs;

k. Banners.

2. Changeable Copy. The signs described in this section may include manual, electronic or mechanically activated changeable copy comprising not more than fifty (50) percent of the sign copy area. Such changeable copy shall not blink, flash or change in appearance more than once in three seconds. Manually activated changeable copy signs shall use no more than two colors and shall be enclosed within a cabinet with a clear protective cover.

B. Monument Sign Requirements.

1. Commercial and Industrial Developments. One sign is allowed per driveway not to exceed a total per street frontage of two square feet of copy area and two and one-half square feet of sign area respectively for each one thousand (1,000) square feet of gross floor area within the development. With respect to a single building of less than ten thousand (10,000) square feet in gross floor area located on an individual parcel with street frontage, such sign need not be less than twenty (20) square feet in sign copy area and thirty-five (35) square feet in sign area per street frontage.

2. Residential Developments.

a. Neighborhood Identification Signs.

i. One non-illuminated neighborhood identification sign is permitted at each street entrance to each neighborhood.

ii. Neighborhood identification signs shall not exceed twenty-five (25) square feet in copy area, forty-five (45) feet in sign area and six feet in height.

iii. The content of such signs shall be limited to the name of the neighborhood.

iv. All neighborhood identification signs shall be designed for maximum vandal resistance and shall be made of masonry, cement, or other materials of comparable durability. Such signs may be either freestanding or affixed to the neighborhood perimeter wall.

v. All neighborhood identification signs shall comply with the sight distance requirements for traffic safety.

vi. No neighborhood identification sign shall be allowed unless a homeowners' association or community services district is responsible for sign maintenance.

vii. Any neighborhood identification sign located within a city right-of-way shall require an encroachment permit for such sign from the city engineer.

b. Multiple-Family Complex. One wall or monument sign, not exceeding twenty-five (25) square feet in area per display face, is allowed for each public street frontage. Monument signs may not exceed six feet in overall height. In lieu of a freestanding sign or one large wall sign, two single-sided, wall mounted-signs not exceeding twenty-five (25) square feet per display face are allowed for each public street frontage when located at a project entry point. The content of such signs shall be limited to the name of the complex and the range of addresses within the complex.

c. Temporary Model Home Complex. Two non-illuminated signs are permitted not to exceed twenty-five (25) square feet in copy area, forty-five (45) square feet in sign area and six feet in height at each major entrance to the complex. Such signs shall be removed at the completion of home sales.

3. Institutional Signs Within Residential Districts. One monument sign not to exceed thirty-six (36) square feet in copy area, forty-eight (48) square feet in sign area and eight feet in height is permitted to identify the premises of a place of religious worship or similar quasi-public institution.

4. Sign Height and Area.

a. The height of a monument sign is the vertical dimension measured from the average finished grade level to the highest point of the sign. The height of a monument sign shall not exceed fifteen (15) feet.

b. The maximum height of a sign located on a berm with a finished grade level more than two feet above the top of the street curb shall be reduced an amount equal to the distance that the grade level exceeds two feet above the top of curb.

c. Where topographic constraints make the established copy height standards impractical, the community development director may adjust the height requirements on a project by project basis.

d. The sign area of a monument sign may not exceed the limits prescribed in this section unless a determination is made by the decision-making body that an increase is needed to improve the compatibility of the sign with the architecture of the development where the sign is to be located. This provision shall not be construed to apply to the sign copy area.

5. Addresses. Addresses with a minimum of six-inch letters shall be located above the copy area. If a series of addresses are located within the project, the address shall include the entire address range beginning with the lowest number. Addresses shall not be considered in the calculation of the copy area.

6. Vacant Spaces. Any vacant tenant spaces on a multitenant monument sign shall appear opaque until occupied using a material and texture consistent with the rest of the sign copy area.

7. Opaque Backgrounds. The sign copy area shall be designed with opaque backgrounds such that when illuminated from behind, only the sign text is illuminated against a dark (unlighted) background.

8. Application to Multitenant Centers. Monument sign standards apply to any development designed as an integrated center with shared parking and access. Leasing to individual tenants or subdivision of the center shall not establish separate sign privileges for each tenant or parcel.

9. Setback Requirements. Monument signs may be placed at the ultimate street right-of-way line, except that they shall not encroach within the limited use area described in the landscape development guidelines and specifications.

C. Tenant Identification (Wall) Sign Requirements.

1. Signs on Buildings Up to Two Stories High. Each tenant may erect a wall sign on the front, side and rear of the building space occupied by such tenant with a sign area not to exceed ten (10) percent of the building face occupied by such tenant, except that such sign need not be less than twenty (20) square feet in area.

2. Signs Within Any District on Buildings Over Two Stories High.

a. One wall sign not to exceed two percent of the building face may be placed above the windows of the highest floor on each exterior wall (front, rear and side) of the building. Such sign(s) shall display the name of the building or the major tenant.

b. Up to four wall signs per building, each not to exceed twenty (20) square feet in area, may be placed below the second floor to identify building tenants.

3. Residential Uses. One wall sign is permitted per street frontage of a multiple-family complex not to exceed twelve (12) square feet in area. The content of such signs shall be limited to the name of the complex and the range of addresses within the complex.

4. Approved Types of Wall Signs. Wall signs shall consist of individually mounted channel letters, carved or routed wood, neon, sculptured cans, can signs and awning signs.

5. Wall Sign Specifications.

a. The copy area of a can wall sign shall use an opaque background. The retainer shall be decorative.

b. Individually mounted letters may be constructed of metal, plastic or foam, provided that the letters are a minimum of one inch in depth and the density of the plastic or foam is three pounds or greater. Alternative materials may be approved provided they are equivalent in durability to the above-referenced materials.

c. Carved or routed wood signs shall be constructed of redwood, cedar, balsa or an equivalent material. Wood signs shall be coated with sealer to minimize weathering. Plywood signs are prohibited.

d. Letters or graphics on an awning sign shall be painted, printed or affixed flat against the surface of an awning. An awning is a roof-like cover constructed of non-rigid material over a supporting framework that projects from the exterior wall of a building.

6. Raceways and Conduit. Raceways and electrical conduit shall not be visible.

D. Drive-Through Restaurant Menu Boards. Two additional signs shall be permitted for the purpose of displaying the type and price of products sold on-site to drive-through customers. Such signs may include a speaker system to allow drive-through customers to order food and beverages. Such signs shall not exceed forty-eight (48) square feet in area and eight feet in height inclusive of the base. If the restaurant elects to build only a single menu board, the sign shall not exceed sixty-four (64) square feet and the height shall not exceed eight feet inclusive of the base.

E. Freeway Signs. One freestanding on-site sign shall be permitted per parcel or business complex, <u>unless otherwise approved by the community development director,</u> provided that the sign is located within six hundred sixty (660) feet of a freeway right-of-way. Such sign shall not exceed forty-five (45) feet in height and one hundred fifty (150) feet in sign area. The sign area may not exceed the limits prescribed in this section unless a determination is made by the community development director that an increase is needed to improve the compatibility of the sign with the architecture of the development where the sign is to be located.

<u>1. The community development director may approve the use of 100 percent of the area of a freeway sign for changeable copy displays, provided that the respective sign also identifies at least one of the on-site businesses either as part of the changeable copy</u>

display or the physical structure of said sign. Changeable copy signs may be used to advertise establishments, products, services and activities that are sold, produced, and/or furnished on-site or off-site.

F. Gas Station Signs.

1. Monument Signs. Gas stations shall be allowed one monument sign per street frontage to identify the business and the state-mandated price identification. Each sign shall not exceed forty (40) square feet in copy area and seventy-five (75) square feet in sign area, except that up to forty-five (45) square feet in copy area may be allowed where there is joint use of a gas station with other businesses.

2. Gas Pump Island Signs. Signs are allowed on or above the fuel pumps not to exceed a maximum aggregate surface area of four ~~–~~ square feet per linear foot of pump island.

3. Gas Pump Canopy (Liter Box) Signs. Letters and symbols placed on the canopy over the fuel pumps shall not exceed twenty (20) percent of the total surface area of each face of the canopy.

G. Theater Marquees. Theater marquees shall be subject to review by the community development director.

H. Internal Guidance Signs. Internal guidance signs may be erected to direct pedestrian or vehicular traffic within the internal circulation system of a business or residential complex. Internal guidance signs shall list one or more of the businesses or buildings on the premises and indicate the recommended route to the businesses or buildings. Such signs shall not exceed fifteen (15) feet in height. Such signs shall be oriented for viewing from within the premises~~,~~ and shall not be readily visible from outside of the premises in which they are located. Internal guidance signs located twenty (20) feet or more from the public right-of-way and less than four square feet in sign area do not require a sign permit.

I. Directory Signs.

1. Vehicular-Oriented Directory Signs. One vehicular-oriented directory sign may be required near each major entrance of a multiple-structure project. One vehicular-oriented directory sign shall be permitted near each major entrance of a multitenant, business complex. Such signs shall not exceed forty-eight (48) square feet in sign area and eight feet in height. A vehicular-oriented directory sign shall not be placed at the driveway entrance but shall be ~~located~~ in an easily accessible location adjacent to the driveway. Such sign may contain a list and map and accompanying legend indicating the name of the development, streets, buildings, unit numbers and fire hydrant locations within the development. Vehicle-oriented directory signs shall be oriented for viewing from within the complex and not from the street outside of the complex.

2. Pedestrian-Oriented Directory Signs. One pedestrian-oriented directory sign not to exceed ten (10) square feet in copy area shall be permitted for each multitenant

building in a business or residential complex. Such sign shall list each business or residence located within the building and its address.

J. Projecting Signs. A projecting sign may be permitted in lieu of a monument sign based on a determination by the decision-making body that the physical limitations of the site make it impractical to erect a monument sign on the premises. The copy area and sign area shall not exceed the size of the monument sign.

K. Special Event Signs.

1. Special event signs are permitted subject to the following:

a. Definition. A “special promotion” means a commercial event for which the special use of special event signs which are otherwise prohibited by this chapter, are permitted with a granting of a permit by the community development department prior to such displays. No special promotion shall exceed thirty (30) days during any calendar year at any one address or location within the city;

b. The community development director shall issue permits for “special event signs” not to exceed thirty (30) days during any calendar year. The applicant for such special event signs may elect to determine how the days shall be allocated to that particular address or premises within the city. However, no more than three permits may be issued per calendar year;

c. Applications for “special event sign” permits shall be filed with the community development department, at least five days prior to the beginning of the event; provided, however, that the community development director may exempt an applicant from the five days application prior to the beginning of an event provided the applicant files a declaration under penalty of perjury that the nature of his or her business activities does not permit advance knowledge by the applicant of the time of any particular “special event” and that such applicant agrees that he will not exceed the total number of thirty (30) days within any calendar year;

d. All special event signs shall comply with the following requirements and restrictions:

i. The applicant shall obtain any other required permits, licenses, written approvals from the city or other agencies and observe all laws concerning health and safety.

ii. Written approval from the property owner or authorized agent shall be submitted with the permit application.

iii. A copy of the approved permit application will be furnished by the community development department. This copy, and all other required permits, must be displayed in a conspicuous place on the premises throughout the duration of the event.

iv. Signs, advertising devices and other approved outdoor displays shall substantially conform in size and location to the site plan sketched on or attached to the permit and conform with any restrictions stated upon the permit.

v. Signs, advertising devices and other approved outdoor displays shall be erected or placed only on property in possession or control of the permittee. No off-site signs or displays shall be permitted.

vi. Within ten (10) feet of any vehicular access or five feet of any public street property line, no sign, advertising device, or other approved outdoor display shall exceed thirty (30) inches in height above street curb. No public right-of-way shall be used for locating any sign or display.

vii. Signs or banners shall be permitted with an area of one square foot for each lineal foot of store or building front, owned or operated by the permittee, up to a maximum of eighty (80) square feet.

viii. All signs, or other approved outdoor displays shall be erected and maintained in a clean, safe manner and in good repair at all times.

ix. The community development director may impose special requirements and restrictions when unusual conditions exist at or near the proposed event location. Such restrictions shall be listed on the approved permit application and shall be adhered to throughout the duration of the event.

x. Search lights may be permitted concurrently with other signs as part of a special event promotion.

2. Special event signs for grand openings shall be permitted in addition to the time frames specified above, provided that no additional time shall be granted for inflatable signs.

a. No sign shall be displayed more than thirty (30) calendar days;

b. The event is for the original opening of a business at a particular location, within thirty (30) days after occupancy. Existing businesses may qualify if the ownership and the name of the business are changed. A grand opening is not an annual or occasional sales promotion or the opening of a related store at another location;

c. The requirements of special event signs are met.

3. Inflatable Signs. Inflatables shall be allowed with a special event sign permit, provided that:

a. Inflatables shall not be displayed for more than thirty (30) days per calendar year;

b. Balloons and blimps shall not exceed a maximum height of fifty (50) feet above grade;

c. Large (greater than forty (40) inches in diameter) balloons and blimps shall be permitted for commercial uses only;

d. Any size balloon or blimp may be illuminated but may not have been constructed of reflective material.

L. Off-Site Directional Signs. Only off-site directional signs which are in conformance with this section may be erected or maintained within the city. Off-site directional signs shall only be permitted for residential subdivisions, public and quasi-public uses or facilities. The following standards shall apply to the construction and installation of off-site directional signs:

1. The city shall designate an organization for administration of the terms of this section, except that the organization shall have no enforcement powers hereunder. The duties of the organization under this section include, but are not limited to, the following:

a. Timely, equitable and nondiscriminatory processing of applications to install a directional sign on a kiosk;

b. Obtaining sites and approvals for kiosk locations;

c. Timely construction and installation of kiosks and directional signs; and

d. Maintenance of kiosks, kiosk sites and directional signs in a neat, clean and orderly condition.

2. The duties imposed upon the organization pursuant to this section may be exercised by a third party, subject to prior approval of such third party by the public works director.

3. The design of kiosks and directional signs shall be prepared by the organization and submitted to the city for written approval by the public works director.

4. Kiosks and directional signs shall conform to the following general standards:

a. Kiosks shall contain no more than eight directional signs per face;

b. No kiosk shall have more than one face, except that additional faces, not to exceed three in number, may be approved for specific locations by the planning commission;

c. No kiosk shall exceed nine feet in height or five feet in width;

d. Each directional sign shall be nine inches high and five feet long;

e. Directional signs may contain the following information: name of use; applicant logo; and a directional arrow;

f. No tag sign, streamer, device, display board, or other appurtenance may be added to or placed upon any kiosk or kiosk site, except as approved in writing by the public works director;

g. Kiosks will be permitted in all land use districts and on private or public property or right-of-way, subject in each case to written permission of the owner of such property or right-of-way and subject to written approval of the city. Permission of the property owner for each kiosk site shall be filed with the public works director. Approval of the city may be obtained in the following manner:

i. By designation as an approved site by the public works director,

ii. For kiosks of one face, by the public works director, and

iii. For kiosks of two or more faces, by the planning commission, except that the public works director may give interim approval of such sites for a period of thirty (30) days or less;

h. All liabilities, costs and expenses arising out of the siting, installation and construction of kiosks and directional signs, and out of administering the provisions of this section, other than enforcement expenses related to violations of this section, shall be borne by the organization; the organization shall enter into an agreement with the city, under which it indemnifies, defends and holds harmless the city, in such form as approved by the public works director and city attorney, and shall provide public liability insurance in the minimum amount of three hundred thousand dollars ($300,000.00) naming the city as additional insured and in such form and with a company or companies approved by the director of public works and city attorney; and the city shall have no liability therefor.

i. In addition to other penalties provided by law, including those set forth in this section, any directional sign erected, constructed, installed or maintained in violation of this section shall be deemed a public nuisance and may be summarily abated as such by the city.

M. Banners.

1. General Provisions.

a. Banners shall be maintained free from deterioration, disrepair or other condition that would create a nuisance as described in Section 6.04.040 of this code.

b. Banners shall be attached to buildings unless otherwise specified in this section. The banners shall be securely fastened at all four corners to the wall of the building on which it is located. The method of attachment shall prevent the banner from flapping in the wind.

c. A banner shall not obscure windows, doors, lighting fixtures, other signs, nor shall it be displayed above the walls of the building on which it is located.

2. Promotional Advertising Banners.

a. A “promotional advertising banner” means a banner advertising the name of a business or a product or service provided on the premises.

b. No promotional advertising banner shall be displayed unless authorized by permit issued by the community development department. Each may cover more than one banner. A banner permit shall be effective for as long as the business receiving the permit has a valid business license for the location. A new permit shall be required if the business moves to a new location. Banners shall be maintained in good condition and in conformance with the approved permit.

c. Banners shall be displayed on the wall(s) of the building space occupied by the business advertised on the banner, not to exceed one banner per wall and two banners per business. Each promotional advertising banner shall not exceed ten (10) percent of the area of the building face on which it is placed.

d. In the case of a business engaged in a substantially outdoor enterprise, the community development director may permit a promotional advertising banner to be placed in a location other than the wall of a building occupied by such business and of a size that would be enjoyed by a typical indoor business situated on a site of the same size.

e. A copy of the approved banner permit shall be displayed in a conspicuous place on the premises in full public view for as long as the permit is in effect.

f. A promotional advertising banner shall not be displayed in lieu of a permanent wall or canopy sign except during the first sixty (60) days of issuance of the certificate of occupancy for the business.

g. A promotional advertising banner shall not be displayed facing a freeway.

3. Quasi-Public Uses. One banner not to exceed sixteen (16) square feet in sign area may be displayed per street frontage in conjunction with a quasi-public use.

N. Off-Site Real Estate Signs.

1. An off-site real estate sign is a sign advertising real estate that is for sale, rent, lease or exchange where the advertised property is not the same property on which the sign is located.

2. No off-site real estate sign may be illuminated.

3. No off-site real estate sign shall be allowed without written consent of the property owner.

4. No off-site real estate sign shall be installed in a manner that creates a hazard for vehicle or pedestrian traffic. All off-site real estate signs shall comply with the sight distance requirements for traffic safety.

5. Off-site real estate signs are prohibited within the public right-of-way.

6. No off-site real estate sign shall exceed twenty-four (24) square feet in area or eight feet in height.

7. Off-site real estate signs shall be made of weather-resistant materials, maintained in good condition and kept free of graffiti. No paper, cardboard, lightweight plastic or similar fragile material shall be used. Off-site real estate signs shall be coated with materials that allow graffiti to be removed easily.

8. The content of each off-site real estate sign shall be limited to the information identified in Section 713 of the California Civil Code: a statement that the property is for sale, lease or exchange; directions to the property; and the owner's or agent's name, address and telephone number.

9. Off-site real estate signs shall be removed within ten (10) days of the execution of the sale, lease, exchange or rental agreement for the property for which the sign is erected.

O. Signs in the Public Right-of-Way.

1. A monument sign that is otherwise permissible pursuant to subsection (B)(1) of this section and located in the public-right-of-way may be permitted in the following circumstances:

a. The sign is located within a public right-of-way controlled by the city of Moreno Valley;

b. The sign is located along Sunnymead Boulevard between Frederick Street and Perris Boulevard;

c. There is no practicable location on private property to locate the sign;

d. The sign design and location do not obstruct or impede any utility, utility access, pedestrian walkways or pedestrian or vehicle sight lines;

e. The sign design and location are not located over or upon any other easement without written authorization for such from the owner of the easement;

f. An encroachment permit is obtained, all fees paid, and all required insurance and other requirements are kept current and valid;

g. A sign permit is obtained in accordance with this chapter.

2. In order to apply for a permit for a sign in the public right-of-way pursuant to this section, an application must first be made for an encroachment permit and all criteria for such encroachment permit must be met.

3. In the event that any of the requirements or terms of the encroachment permit are not met or are not continually maintained in accordance with the encroachment permit,

any sign permit shall become void and such sign shall become a public nuisance and may be removed by the city at any time at the sign owner's expense.

4. Any such sign in the public right-of-way shall be immediately removed from the public right-of-way upon request by the city for any public purpose and shall not be entitled to any compensation.

9.12.070 Sign program.

A. An integrated sign program may be requested by the property owner for all nonresidential projects with two or more tenant suites. ~~greater than fifteen (15) gross acres in area.~~ The sign program shall be subject to review by the community development director. A sign program may deviate from any of the standards provided in this section.

B. Sign programs in effect prior to adoption of this title shall be considered valid upon adoption of this title. Such programs may be converted to the standards given in this section if the landowner files a notice of intent with the community development director.

CITY OF MORENO VALLEY
PLANNING COMMISSION

VIA TELECONFERENCE ONLY
PURSUANT TO COVID-19
GOVERNOR EXECUTIVE ORDER N-29-20

NOTICE OF PUBLIC HEARING AND ENVIRONMENTAL DETERMINATION

NOTICE IS HEREBY GIVEN that a teleconferenced Public Hearing will be held by the Planning Commission of the City of Moreno Valley on the date and time set forth below:

Date and Time:	November 12, 2020 at 7:00 p.m.
Location:	**VIA TELECONFERENCE ONLY** **Go to http://morenovalleyca.iqm2.com/Citizens/default.aspx for instructions.**
Item:	Municipal Code Amendment (Case No. PEN20-0189)
Applicant:	City of Moreno Valley
Location:	City Wide
Proposal:	A Municipal Code Amendment to amend various sections within Title 9 Planning and Zoning, Chapter 9.02 Permits and Approvals, Chapter 9.09 General Development Standards, Chapter 9.11 Parking, Pedestrian and Loading Requirements, and Chapter 9.12 Sign Regulations.
Council District:	City Wide

ENVIRONMENTAL DETERMINATION: Pursuant to Section 15378 of the California Environmental Quality Act, a 'Project' means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment. A project does not include organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment. Therefore, staff has determined that the proposed amendments are not a project under the California Environmental Quality Act.

PUBLIC TESTIMONY: All interested parties will be provided an opportunity to submit oral testimony during the teleconferenced Public Hearing and/or provide written testimony during or prior to the teleconferenced Public Hearing. The application file and related environmental documents may be inspected by appointment at the Community Development Department at 14177 Frederick Street, Moreno Valley, California by calling (951) 413-3206 during normal business hours (7:30 a.m. to 5:30 p.m., Monday through Thursday).

COVID-19 – IMPORTANT NOTICES: Please note that due to the COVID-19 pandemic situation, staff will attempt to make reasonable arrangements to ensure accessibility to inspect the aforementioned records. **In addition, special instructions on how to effectively participate in the teleconferenced Public Hearing, as approved by Governor Executive Order No. N-25-20, will be posted at http://morenovalleyca.iqm2.com/Citizens/default.aspx and will be described in the Planning Commission agenda.**

PLEASE NOTE: The Planning Commission may consider and recommend changes to the proposed items under consideration during the teleconferenced Public Hearing.

GOVERNMENT CODE § 65009 NOTICE: If you challenge any of the proposed actions taken by the Planning Commission in court, you may be limited to raising only those issues you or someone else raised during the teleconferenced Public Hearing described in this notice, or in written correspondence delivered to the Planning Division of the City of Moreno Valley during or prior to, the teleconferenced Public Hearing.

ACCESSIBILITY: Upon request and in compliance with the Americans with Disabilities Act of 1990, any person with a disability who requires a modification or accommodation in order to participate in a meeting should direct

such request to Guy Pegan, ADA Coordinator, at (951) 413-3120 at least 48 hours before the meeting. The 48-hour notification will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

STAFF CONTACT: Due to the COVID-19 pandemic situation, if you have questions regarding this Public Hearing, please contact Patty Nevins, Planning Official, by telephone at (951) 413-3354 or via email at pattyn@moval.org.

/s/Patty Nevins	Press-Enterprise	October 31, 2020
Patty Nevins Planning Official Community Development Department	Newspaper	Date of Publication